

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ДЕРЖАВНИЙ УНІВЕРСИТЕТ ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНИХ
ТЕХНОЛОГІЙ**

Кафедра англійської мови

**Навчальний посібник
з англійської мови для самостійної роботи
студентів I курсу ІТ спеціальностей**

Additional tasks in English for IT students

Електронне мережне навчальне видання

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Збірник текстів з вправами за професійним спрямуванням створений для студентів ІТ спеціальностей. Збірник текстів призначений для розвитку навичок читання, анотування текстів та аудіювання у галузі інформаційних технологій та спілкування на ці теми, формування навичок висловлення своєї думки англійською мовою. Використаний текстовий матеріал є автентичним мовним матеріалом з англомовних джерел. Збірник поділено на тематичні розділи:

Unit 1. Working in IT

Unit 2. IT Systems

Unit 3. Data Communication

Unit 4. Administration

Unit 5. Choice

Unit 6. Interactions

Unit 7. Development

Unit 8. IT Solutions

Тексти та завдання допоможуть опанувати, засвоїти та застосовувати професійну лексику за спеціальністю у майбутній кар'єрі.

Київ, 2023

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Передмова

Дисципліна «Іноземна мова за професійним спрямуванням» є важливою складовою у підготовці фахівців в галузі ІТ. Володіння англійською мовою є обов'язковим для успішної кар'єри в цій сфері, оскільки вона є мовою комунікації в міжнародному співтоваристві програмістів, інженерів, аналітиків та інших фахівців.

Навчальний посібник «Additional tasks in English for IT students» створено з метою допомогти студентам засвоїти та вдосконалити свої знання англійської мови, спрямовані на підвищення їхньої професійної компетентності. Цей посібник може використовуватися як самостійний навчальний матеріал або в доповнення до інших засобів вивчення мови.

Навчальний посібник «Additional tasks in English for IT students» містить різноманітні вправи та завдання, спрямовані на розвиток мовленнєвих, аудіовальних, читацьких та письмових навичок студентів. Він включає автентичні тексти з області інформаційних технологій, які допоможуть студентам розширити свій словниковий запас та засвоїти термінологію, що характерна для їхнього професійного спрямування.

Структурно посібник складається з вісьми модулів, кожен з яких охоплює певний аспект інформаційних технологій. Кожен модуль має свою власну систему вправ та завдань, які сприятимуть глибокому засвоєнню матеріалу та розвитку комунікативних навичок студентів.

Метою цього посібника є стимулювання активної самостійної роботи студентів та покращення їхньої володіння англійською мовою в контексті професійної діяльності. Він може бути корисним як для студентів, що вивчають англійську мову як основний предмет, так і для тих, хто бажає покращити свої мовні навички у сфері ІТ.

Ми сподіваємося, що цей посібник стане корисним інструментом у вашому навчанні та допоможе вам досягти нових висот у вивченні англійської мови та успішній кар'єрі в галузі інформаційних технологій.

UNIT I

Working in IT



1 Technical Skills and Basic Life Skills that will Help You in your Job Search

a *Do the quiz in pairs.*

SKILLS QUIZ

Can you think of...?

ONE broadly life skill that have been gained through unpaid work, ONE broadly life skill that have been gained through paid work, ONE broadly life skills that have been gained through education.

TWO learned skills gained through experience in Information Technology (IT), TWO learned skills gained by undertaking IT trainings.

THREE personality traits and habits that are more innate and unique to us as individuals.

FOUR general skills that are often applicable to a variety of jobs and not unique to a specific job or vocation.

b *Match 1-3 to a-c.*

1 Hard skills

a) are more interchangeable and flexible, in that you can demonstrate how such skills can be relevant for multiple roles or within different job functional departments.

2 Transferable skills

b) are less measurable and often relate to how we interact with other people, commonly referred to as 'people-skills'.

3 Soft skills

c) are measurable and are often displayed through technical knowledge and commonly linked to particular jobs or professions.

c) *Sort out words and word phrases to appropriate term 1-3.*

1 **Hard skills**

2 **Soft skills**

3 **Transferable skills**

- a) data management
- b) copywriting
- c) empathy
- d) adaptability
- e) negotiations skills
- f) teamwork

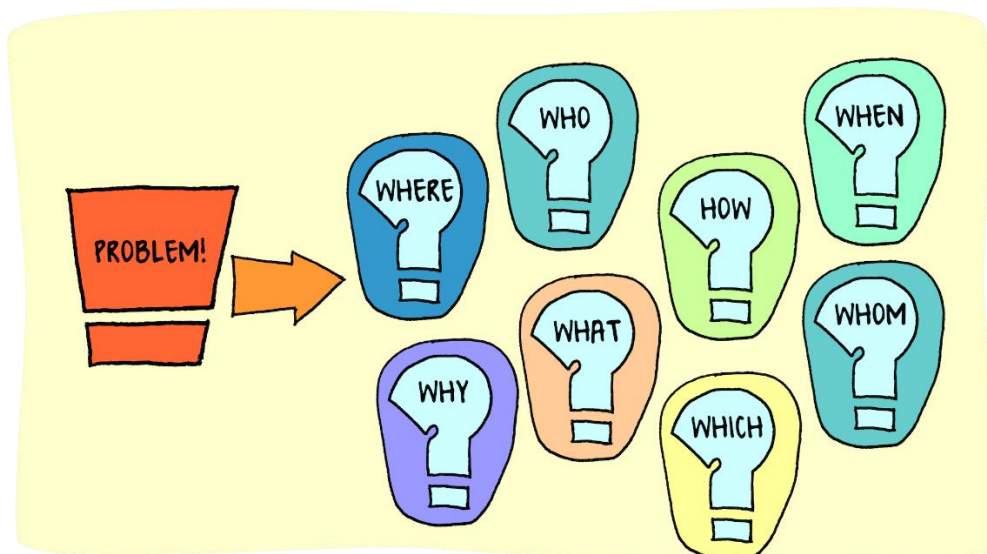
- h) general numeracy skills
- i) problem-solving skills
- j) listening skills
- k) leadership skills
- l) resilience
- g) confidence

Useful language: Giving your opinion (1)

I agree.
I don't agree.
I'm not sure.
(I think) it depends.
For example...
In my opinion...

2 SPEAKING

a *Look at the picture. In pairs discuss Why Do Employers Seek People Who have Problem solving skill?*



b *With a partner, explain the difference between each pair of transferable skills.*

- 1 Analytical Reasoning and Critical Thinking
- 2 Leadership and Teamwork
- 3 Adaptability and Communication
- 4 Creativity and Attention to Detail

Use these words and word phrases to help you

to identify a solution
 evaluation of information
 come to a conclusion
 choose a course of action
 back up a decision
 supervise a team
 take the lead on a project
 get a team to follow through
 accomplish shared goals
 relationship-building
 being on the team
 adjust due dates
 workflow
 maintain a positive attitude
 a clear and concise manner
 approach tasks
 an out-of-the-box thinker
 employ novel techniques
 finer details
 being detail-oriented
 assignment
 strong reasoning behind all decisions

Useful language:
 Giving your opinion (2)
 We often use should + verb to say what we think is the right thing or a good thing (to do), e.g.

*The companies **should adapt** to cloud technology due to its cost-effectiveness and PAYG (Pay as you Go) pricing model.*

c *Work in small groups. Give your opinion. Fill the gaps using words from the box. Give reasons using prompts in parentheses.*

have	learn	use	learn	have
require	specialize	be skilled	master	major

Do you think that....?

1 Individuals _____ the skillset of STEM (S – science, T – technology, E – engineering, M – mathematics) to be able to fill in the position in the field of Artificial Intelligence and Machine Learning.

2 Individuals _____ cloud development to enjoy a lucrative career with cloud development organizations.

3 The organizations _____ GCP (cloud) and automated workflow development technologies to manage data pipelines, data integration and build process reliability.

4 Individuals who are responsible for increasing the productivity of the organization by developing tools and infrastructure, testing, maintaining, upgrading and deploying codes, _____ a parallel domain of DevOps as an essential skill.

5 A full stack developer _____ versatile skills **to be with knowledge** in multiple domains such as database management, version control, and frontend with backend development.

6 Organizations _____ data scientists for increasing business scalability and improvise business operations.

7 Seekers _____ in the subjects such as mathematics, and statistics, eye for detail, and analytical approach to solving problems related to data.

8 Programmers _____ with UI/UX as user experience (UX) has been a significant factor in engaging more customers, therefore it is the most demanding skill in the IT industry.

9 Programmers _____ knowledge of AR and VR for the reason that Metaverse, AR and VR are crucial technologies and meet the rising business demands.

10 Programmers _____ in Blockchain development inasmuch as a lot of applications have come forward to cater for the needs of the BFSI (Banking, Financial Services, and Insurance) sector.

d REACTING TO WHAT PEOPLE SAY

What you think when you hear that your old friend's or your still unemployed specialist's portfolio include...

Basic Coding	Build a chess game Make a mobile app Create a basic calculator Build a web scraper Create a Javascript slideshow Make a countdown timer Flip images Develop a recipe app Create a book finder app Build a drawing app
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Web Development	<u>Web portfolio projects:</u> Landing page API-powered website Clone website CRUD application AI-powered website Full stack unique project <u>Mobile app portfolio projects:</u> Ecommerce app Diet tracking app Personal finance app Movie review app Photo editing app Social networking app
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e Read these two dialogues and underline words, related to people's reaction. Then, in pairs, act out one dialogue.

Dialogue 1

Seeker: Good morning, Mr. Johnson. Thank you for taking the time to review my portfolio. I'm excited to discuss the projects I've worked on.

Business Owner: (interrupting) I've seen enough! Your portfolio is a disaster! What is this rubbish? A chess game? A mobile app? A basic calculator? This is amateur hour, not a professional portfolio!

Seeker: I apologize if my portfolio doesn't meet your expectations. Allow me to explain—

Business Owner: (shouting) Explain what? That you've wasted your time building useless apps that any high schooler could whip up in their spare time? I expected to see groundbreaking projects, not this kindergarten-level nonsense!

Seeker: I understand your disappointment, but I assure you that each project was crafted with care and attention to detail. The chess game, for example, required complex algorithms for move validation and AI opponent implementation.

Business Owner: (exasperated) Oh, spare me the excuses! A chess game? Do you think we're running a game development studio here? And what about this basic calculator? I can find a dozen similar apps on the app store within seconds!

Seeker: I see that my portfolio doesn't align with what you're looking for. However, I believe that each project demonstrates my problem-solving abilities and my willingness to tackle different challenges.

Business Owner: (fuming) Problem-solving abilities? More like wasting time on irrelevant projects! We need someone who can handle real-world problems, not someone playing around with JavaScript slideshows and countdown timers!

Seeker: I understand your frustration, but I respectfully disagree. Each project helped me refine my skills and gain valuable experience in various technologies.

Business Owner: (shouting) I don't care about your excuses! You're clearly not ready for the challenges of our IT company. Pack your things and leave immediately!

Seeker: (calmly) I'm disappointed to hear that, but I appreciate the opportunity nonetheless. Thank you for your time.

Business Owner: (gruffly) Don't let the door hit you on the way out!

Dialogue 2

Web Developer (WD): Good morning, Mr. Smith. Thank you for taking the time to review my portfolio. As you can see, I have a variety of web projects that I've worked on.

Business Owner (BO): Good morning, it's my pleasure. Let's dive into it. Your landing page projects look quite impressive. Can you tell me more about the technologies you used and the results you achieved?

WD: Certainly. For the landing pages, I focused on creating clean and visually appealing designs using HTML, CSS, and JavaScript. I also ensured they were responsive across different devices. One notable result was for a client in the e-commerce industry, where we saw a 20% increase in conversions after implementing the new landing page design.

BO: That's fantastic to hear. Now, let's move on to the API-powered website. How did you integrate APIs, and what was the purpose of the website?

WD: The API-powered website was a project where I integrated third-party APIs to fetch and display dynamic data. For example, I worked on a weather forecasting website where I integrated a weather API to display real-time weather information based on the user's location. It was a great way to provide value-added services to users.

BO: Impressive. Moving on to the clone website, what was the motivation behind recreating existing websites?

WD: Clone websites were a way for me to demonstrate my ability to replicate existing designs and functionalities. It involved reverse engineering the UI/UX and implementing the backend logic to mimic the original website's functionality. This helped me showcase my skills in both frontend and backend development.

BO: Understood. Now, let's talk about CRUD applications. Can you explain what CRUD stands for and provide an example of a CRUD application you've developed?

WD: CRUD stands for Create, Read, Update, Delete, which are the basic operations performed on data in a database. I've developed several CRUD applications, including a simple task manager where users can create, update, and delete tasks. It's a fundamental aspect of web development, especially when working with databases.

BO: Great. Now, I'm curious about the AI-powered website. How did you integrate AI, and what was the purpose of the website?

WD: The AI-powered website utilized machine learning algorithms to provide personalized recommendations or predictions to users. For instance, I worked on a movie recommendation website where I implemented a recommendation system based on the user's viewing history and preferences. It enhanced the user experience by suggesting movies they were likely to enjoy.

BO: Fascinating. Finally, let's discuss your full stack unique project. What made this project stand out, and what technologies did you utilize?

WD: The full stack unique project was a comprehensive endeavor where I handled both frontend and backend development. One notable project was a crowdfunding platform where users could create campaigns to raise funds for various causes. I utilized technologies like React for the frontend, Node.js for the backend, and MongoDB for the database. It showcased my ability to develop complex web applications from start to finish.

BO: Excellent work, and thank you for walking me through your web portfolio projects. Now, let's shift our focus to your mobile app portfolio.....

3 READING

a Read the text. In pairs, answer the questions below.

What's It Like to Work in IT? The Scoop from IT Pros

Are you wondering what technology culture is like for people working in IT careers? We've interviewed a few IT pros to help you get a better understanding of what their day-to-day jobs are like and their experience of working in technology in general. If you're wondering, "What career is right for me?" our interviews with these IT professionals may help you decide that a career in IT is right for you.

Name: Bonnie Brennan

Job Title: Angular Architect and Google Developer



What do you do?

JavaScript development and architecture, with a focus on Angular and enterprise.

What do your kids think you do?	What do your friends think you do?	What does your family think you do?
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My daughter works with me as a junior developer, so she knows what I do, and my son thinks I'm the best Angular developer in Houston, and I let him think that!	They think I do everything computer related. I don't think they know. Anything that's related to computers, they think I do – fixing them, programming them, etc.	They think I write code. I don't think they know anything about my career except that I write code, and they're not really sure what kind of code I write or what I do with it.
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How'd you get into this role?

I like emerging technology. I like a challenge. I like learning the latest cool stuff. The web development industry is always going to be changing, and that's exciting. I happened to stumble across Angular at the serendipitous time and have sort of become a subject-matter expert because I stuck with it.

A few years ago, when I first started learning Angular, it was very new, and there weren't that many resources to help me learn. Starting an Angular Meetup and working with other developers helped me become an expert.

As a junior developer, a lot of what you learn can be self-taught, but, as a senior developer, there's only so much you can learn on your own. I think it's essential for senior developers to get involved in the community and learn from each other.

Developers benefit so much from things like working with open source and talking to other developers. A lot of developers are self-taught, but you're going to get to a point where you can't grow anymore on your own. You have to start branching out and learning things from other developers.

A lot of software developers struggle with that, getting out, and it has to do with confidence. They think, "I don't want to contribute to open source not because I don't need help but because I'm worried I'm not good enough." The only way I was able to get involved was to not take myself too seriously. Don't worry about being an expert. Just participate, and you can learn so much.

What's your typical day at work like?

I work remote, so I get up in the morning and go to my home office. I sit here and write code most of the day. I collaborate with other developers and do video chats. Most of the time I just sit here and write code, though, and I love it. It's the greatest job.

What kind of technical skills do you need to succeed in your position?

A solid understanding of programming – TypeScript, specifically. And you get that by putting in the time to learn it. The only way to learn programming is to make mistakes. Coding is hard to explain to someone unless they've gone through the

process of using it and problem solved using it. When you're learning to code, you have to make mistakes so you're better at anticipating problems in the future.

What type of personalities are a good fit for your job?

Curious and stubborn personalities. I got to this point because I had curiosity and tenacity. I'm stubborn, which is a good thing in this career. I come across things that I don't know how to do, and I have to have the tenacity to figure it out. A patient personality is also helpful.

Which soft skills do people in your role need?

Patience and confidence. You have to believe in yourself.

You learn this stuff as you go along. You understand more each time. Also, I think it's helpful if you're a healthy person, because a lot of the job involves sitting, especially if you work remote like I do. Being active outside of work is a plus.

What does the career path look like in your position/field?

Awesome! There are definitely a lot of employers looking for developers, especially developers who know Angular. There are so many people now using it, and there are a lot of teams looking for someone with experience to help them.

How would you describe your work–life balance?

It's great. I was a single mom for a long time, and I used to be an administrative assistant and worked my way up to an executive assistant position. In that job, I worked longer hours for less pay. Right now, I'm getting paid not just for the time I'm working but for the time I spent learning those skills. My job can be intellectually difficult, but I get every weekend off and every Christmas off. I can take off time for family when I need to. I didn't have that luxury in previous positions, and I think my work–life balance is a lot better now that I'm a developer.

Name: Wendell Thacker

Job Title: Network Engineer



What do your kids think you do?	What do your friends think you do?	What does your family think you do?
My two-year old	In IT circles, we have a	My parents often ask,

daughter is not really aware of what I do, but I think my older twin boys have a better idea. In general, they think dad fixes everyone's computers.	running joke that everyone thinks we can do anything. People might expect me to know how to use Photoshop, but that's not my area of expertise!	“What is it you really do?”. As they've gotten older, I think they have a closer understanding, but it took a while to explain it to them.
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How'd you get into this role?

Networking. I've gotten most of my jobs through knowing people in the field. Only my first job right out of college was different. I found it through CareerBuilder.

What's your typical day at work like?

Right now, I do anything from help desk tasks, like helping people reset passwords, to stuff on the opposite end, like managing servers and setting up virtual machines. There's a lot of variety!

What kind of technical skills do you need to succeed in your position?

A background in computer engineering that covers software and programming is helpful. Knowledge of networks is also important. There are definitely times when technical skills can be picked up along the way, but you do have to have a basic understanding of the inner workings of computers.

What type of personalities are a good fit for your job?

Any personality! I've seen both introverted and extroverted people succeed in technology culture. Also, a good sense of humor is a plus. You have to be able to laugh when you're problem solving in an IT job.

Which soft skills do people in your role need?

Listening skills, communication skills (the ability to hold a conversation), the ability to work well with all kinds of people. In my job, you're working with and helping people all the time, so it's better if you can build a rapport with them.

What does the career path look like in your position/field?

There are a lot of opportunities out there for people with my skillset. There's a lot of room for growth in the field. Right now, I'm definitely happy with where I am and am always striving to improve at what I do and suggest innovative new things to the company.

How would you describe your work–life balance?

The work–life balance at my job is amazing. My boss is flexible when I have to leave early for things like my sons' baseball practices and games. And our executive even sent an email out to remind people to use their PTO! My supervisor is very understanding, too, if I need to take sick days or even mental health days off. I don't have to explain myself, and I get plenty of time off for the holidays.

Name: Ezequiel Pitty

Job Title: Vice President of Infrastructure Engineering Core Services



What do you do?

I work mainly on server deployments and infrastructure management. In general, I provide maintenance and support to business applications.

What do your kids think you do?	What do your friends think you do?	What does your family think you do?
They think I'm an IT guy and that I work on computers. They don't know exactly what I do but think I'm a computer guru.	They think I can fix anything on computers. If there's a problem with any type of technology, they think I'll know how to fix it.	They think I'm the "computer guy," too. My mother always asks me to fix her computer or calls me when she needs help using it.

How'd you get into this role?

I've been in the IT industry for 23 years. I have performed several different roles, as a developer, network engineer, systems administrator and IT manager.

What's your typical day at work like?

I configure scripts to perform server maintenance and functioning and load balancers and database deployments.

What kind of technical skills do you need to succeed in your position?

Knowledge of networks and sever infrastructure as well as network security and server scripting.

What type of personalities are a good fit for your job?

It also helps if you're skilled with computers and like understanding how they work.

Which soft skills do people in your role need?

Independence, flexible, the ability to be self-adaptive, the ability to work well under little or no supervision.

What does the career path look like in your position/field?

I would like to continue to move toward management, like a CIO or a CTO position in a small to medium business.

How would you describe your work–life balance?

My work life is between 40 to 60 hours per week, and I spend plenty of time with my wife and kids. I also take time off for vacation at least once or twice a year. My work–life balance is great.

b Compare the answers of three interviewees. In pairs, answer the question: what kind of technical skills does each interviewee have? What kind of transferable does each interviewee should have to succeed in the position? What is work-life balance? Describe your own work-life balance.

IT organisations

Product Company – (product based company) is an organization that manufactures and markets specialized products to cater to the specific needs of a vast group of customers. The prime objective of these companies is to introduce or deliver their products to customers and build a strong audience.

Outsourcing Company - is provider hired by organizations to provide technology services and resources. This is in contrast to an in-house IT team, which consists of employees who work for the business. An outsourcing company acts as a third-party vendor that works with multiple clients to develop technology solutions on a contract or as-needed basis.

Outstaffing company - team augmentation that implies hiring external specialists from another software development company to enhance your own team. Most of the time, outstaff specialists are located in other cities, countries, and even continents. The outstaff specialists will carry on working at their workplaces at the current company. However, they will be fully managed by the customer.

Consulting Company - an IT consulting company works with clients to help them solve IT problems. The field includes everything from basic network analytics assistance all the way up to managed IT solutions. Most consulting firms specialize in a fairly narrow field of IT.

IT department in a non-tech company (being a dev for a "non-tech company").

b Choose a proper option

1 What is the primary goal of Product Company?

a) To manufacture generic products for a niche market

- b) To provide services tailored to individual customers
- c) To produce and market specialized products for a wide customer base
- d) To focus solely on marketing strategies without product development

2 What distinguishes an outsourcing company from an in-house IT team?

- a) Outsourcing companies provide services only to small businesses
- b) In-house IT teams work on contracts with multiple clients
- c) Outsourcing companies are hired by organizations for technology services
- d) In-house IT teams consist of third-party vendors


3 What defines the practice of outstaffing in the context of software development?


- a) Hiring external specialists to replace existing team members
- b) Hiring additional employees to form a new team within the organization
- c) Employing specialists from another software development company to supplement the existing team
- d) Employing specialists who work remotely but are not managed by the customer


4 What is a key characteristic of IT consulting firms?


- a) They provide assistance exclusively in basic network analytics.
- b) They offer managed IT solutions without any consultation.
- c) They specialize in a broad range of IT services.
- d) They focus on solving IT problems and may specialize in specific areas within the field.

Read the company profiles and decide what type of company it is

	<p>Grammarly is the AI writing partner that helps people at every stage of the writing process, from blank page to final draft. From email threads to comment threads, from texts to theses, you want to put your best writing out into the world. Grammarly helps your ideas shine with instant writing guidance, delivered intelligently, whenever you need it. Catch typos, missing punctuation, or commonly confused words before they become distracting to your reader. Grammarly reviews spelling, grammar, punctuation, clarity, engagement, and delivery mistakes in English texts, detects plagiarism, and suggests replacements for the identified errors. It also allows users to customize their style, tone, and context-specific language.</p>
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	<p>Get world-class software development outsourcing services tailored to the needs of startups and SMEs. With our wide selection of vetted remote specialists, you will be able to release your product faster and improve the operational efficiency of your company.</p> <p>Our techs have proven themselves by creating web and mobile software solutions for Fortune 500 companies.</p> <p>Our outsourced software development team has been working with clients from the USA, UK, EU, APAC, and Middle East. So wherever you are, you can expect a comprehensive understanding of your needs and culture.</p> <p>Start development as soon as the contract, the project scope, and the budget are finalized. The time you save will help you get ahead of the competition, and receive the benefits of digital transformation that much sooner.</p>
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	<p>Ukraine is one of the top destinations globally for IT development talent and, with a concentration of schools dedicated to IT, Ukraine continues to grow its talent.</p> <p>How Infosoft works: 1 Launch the personalized matching process. Set up a free intro call with our Team Advisor — your personal contact at Infosoft. They'll ensure the talent we source perfectly matches your needs. 2 One week to the verified shortlist of candidates. Infosoft handpicks the best-matched candidates from its pool of over 1,000 engineers, conducts personalized pre-screening, then arranges interviews for you. 3 Signing a contract. When a candidate is selected, we sign a contract. All the hassle with the registration of an employee, administration, <u>payment of taxes is covered by Infosoft</u>. No commitments before this point. 4 Get work started with confidence. Infosoft set up developer's environment. The candidate is ready to go. Enjoy the progress!</p> <p>Outstaffing in Ukraine can be a very effective and cost-efficient way to develop a project or augment an existing in-house team.</p>
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	<p>Accenture's Technology Strategy & Advisory practice helps organizations harness technology and innovation to shape their technology visions, execute their digital transformation</p>
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	<p>journeys, and reinvent their businesses to create exceptional, sustainable value from their technology investments. Our global team of tech strategists, enterprise architects and transformation experts help harness technology and innovation as a way to reinvent every business.</p>
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email threads	correspondence chains
typos	errors
distracting	disruptive
customize	personalize
tailored	customized
vetted remote specialists	screened virtual experts
techs	specialist
comprehensive	thorough
get ahead	outpace
launch	commence
intro call	initial conversation
handpicks	selects
hassle	trouble
harness	utilize
reinvent	innovate

UNIT II

IT Systems



1 VOCABULARY AND SPEAKING

Computer Hardware: External & Internal

a *In pairs, call out as many components inside a computer and externally connected peripherals as you can.*

b *Do the quiz in small groups.*

Which picture do you associate with internal and which with external hardware?

 <p>ComputerHope.com</p>	 <p>2</p>	<p>3</p> 	<p>4</p> 
<p>5</p> 	 <p>6</p>	<p>7</p> 	<p>8</p>



2 READING

a *Read the article.*

Inside a computer

Have you ever looked **inside a computer case**, or seen pictures of the inside of one? The small parts may look complicated, but the inside of a computer case isn't really all that mysterious. This text will help you master some of the basic **terminology** and understand a bit more about what goes on inside a computer.

Motherboard

The ***motherboard*** is the computer's **main circuit board**. It's a thin plate that holds the CPU, memory, connectors for the hard drive and optical drives, expansion cards to control the video and audio, and connections to your computer's ports (such as USB ports). The motherboard connects directly or indirectly to every part of the computer.

CPU/processor

The *central processing unit (CPU)*, also called a **processor**, is located inside the **computer case** on the motherboard. It is sometimes called the brain of the computer, and its job is to carry out commands. Whenever you press a key, click the mouse, or start an application, you're sending instructions to the CPU.

The CPU is usually a **two-inch ceramic square** with a **silicon chip** located inside. The chip is usually about the size of a thumbnail. The CPU fits into the motherboard's **CPU socket**, which is covered by the **heat sink**, an object that absorbs heat from the CPU.

A *processor's speed* is measured in **megahertz (MHz)**, or millions of instructions per second; and **gigahertz (GHz)**, or billions of instructions per second. A faster processor can execute instructions more quickly. However, the actual speed of the computer depends on the speed of many different components—not just the processor.

RAM (random access memory)

RAM is your system's **short-term memory**. Whenever your computer performs calculations, it temporarily stores the data in the RAM until it is needed.

This **short-term memory disappears** when the computer is turned off. If you're working on a document, spreadsheet, or other type of file, you'll need to **save** it to avoid losing it. When you save a file, the data is written to the **hard drive**, which acts as **long-term storage**.

RAM is measured in **megabytes (MB)** or **gigabytes (GB)**. The **more RAM** you have, the more things your computer can do at the same time. If you don't have enough RAM, you may notice that your computer is sluggish when you have several programs open. Because of this, many people add **extra RAM** to their computers to improve performance.

Hard drive

The **hard drive** is where your software, documents, and other files are stored. The hard drive is **long-term storage**, which means the data is still saved even if you turn the computer off or unplug it.

When you run a program or open a file, the computer copies some of the data from the **hard drive** onto the **RAM**. When you **save** a file, the data is copied back to the **hard drive**. The faster the hard drive, the faster your computer can **start up** and **load programs**.

Power supply unit

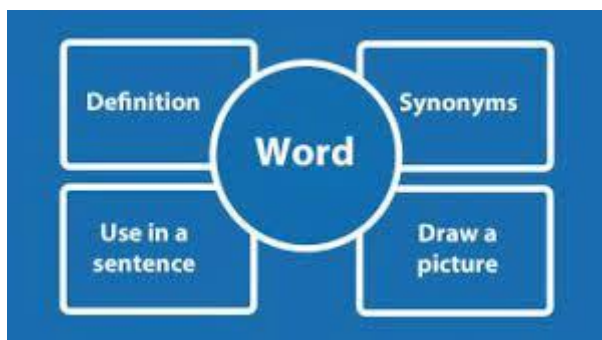
The *power supply unit* in a computer **converts the power** from the wall outlet to the type of power needed by the computer. It sends power through cables to the motherboard and other components.

If you decide to open the computer case and take a look, make sure to **unplug** the computer first. Before touching the inside of the computer, you should touch a grounded metal object—or a metal part of the computer casing—to discharge any static buildup. Static electricity can be transmitted through the computer circuits, which can seriously damage your machine.

b Complete this True or False Quiz:

- 1 The motherboard is the computer's main circuit board (T/F).
- 2 The CPU, also called a processor, is located outside the computer case (T/F).
- 3 The CPU is responsible for carrying out commands in a computer (T/F).
- 4 The CPU is usually a large square with a metal chip inside (T/F).
- 5 A processor's speed is measured in megabytes (MB) and gigabytes (GB) (T/F).
- 6 RAM is the computer's short-term memory (T/F).
- 7 RAM disappears when the computer is turned off (T/F).
- 8 Adding extra RAM to a computer can improve its performance (T/F).
- 9 The hard drive is where software, documents, and files are stored temporarily (T/F).
- 10 The power supply unit in a computer converts power from the motherboard to other components (T/F).

c Complete the Word Maps about words *in italics* with relevant information from the text. Use a Dictionary to pick up synonyms.



d Translate sentences into English and complete the table.

а Апаратне забезпечення комп'ютера – це фізичні частини, з яких складається комп'ютер.

- b Він використовується для введення, зберігання даних, відображення вихідних даних і виконання команд.
- c Характеристики обладнання включають функціональність, портативність, ефективність, документацію для користувача тощо.
- d Переваги апаратного забезпечення включають покращення обслуговування клієнтів, розвиток ефективнішої комунікації, підвищення ефективності бізнесу, впровадження правильних бізнес-технологій тощо.
- e Апаратне забезпечення призначене для надання інструкцій програмному забезпеченню або відтворення результатів його виконання.
- f Периферійні пристрої — це апаратні засоби, які додаються до комп'ютера для розширення його можливостей і підвищення ефективності роботи.
- g Він використовується для введення інформації в комп'ютер і отримання інформації з нього.
- h Характеристики периферійних пристроїв включають зберігання, обробку, зручність використання, швидкість тощо.
- i Переваги периферійних пристроїв включають полегшення роботи в мережі, підвищення ефективності, підвищення ефективності роботи комп'ютерів, обережність щодо інформації тощо.
- j Периферійні пристрої призначені для забезпечення додаткових функцій, а також функцій введення та виведення даних на комп'ютер.

S. No.	Hardware	Peripherals
1.	_____ is physical parts that make your computer.	_____ are pieces of hardware that are added to a computer to expand its abilities and to work more efficiently.
2.	It is used to take input, _____, display output and _____.	It is used to _____ and get information out of the computer.
3.	Features of _____ include functionality, portability, efficiency, user documentation, etc.	Features of _____ include storage, processing, usability, speed, etc.
4.	Benefits of hardware include _____, developing more effective communication, improving business efficiency, implementing the right business technology, etc.	Benefits of peripheral devices include making _____ easier, increasing efficiency, making the functioning of _____ more effective, caution about information, etc.
5.	Hardware is designed to provide instructions to _____ or render results from its execution.	Peripherals are designed to provide extra _____ as well as data input and output functionality to computer.

3 VOCABULARY. External Parts of computer

What is external hardware?	<i>External hardware is any hardware components that are connected to a computer but are not housed within its main case. These are also known as peripheral devices.</i>
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There are two categories of external hardware components of computers based on their functionality.

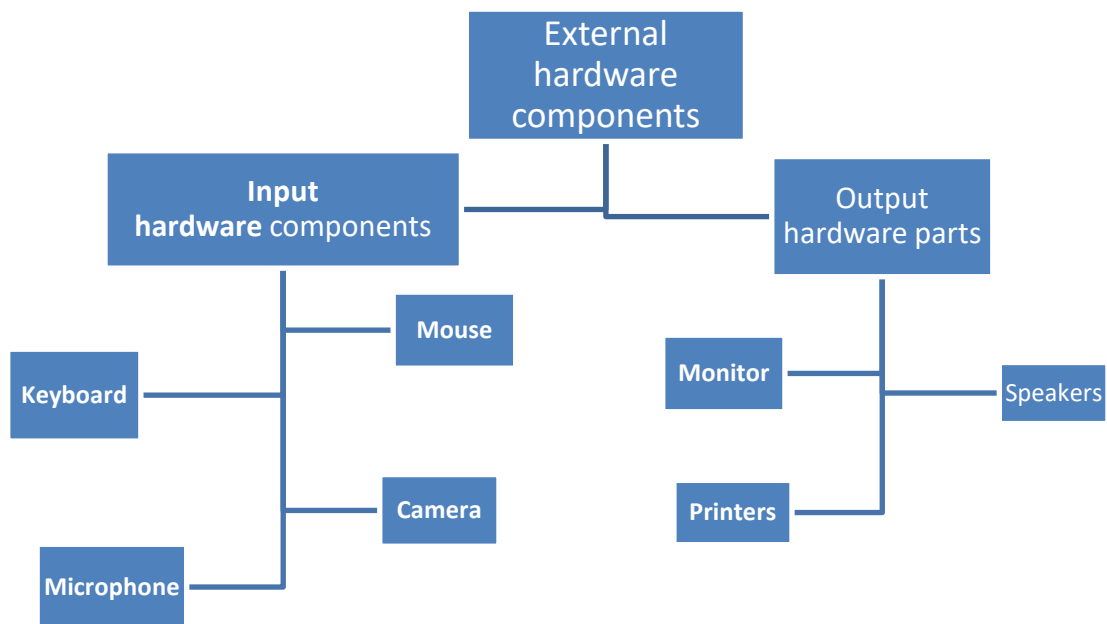
1. Input hardware components

Input hardware devices are used to enter data into the computer. Users enter data through these devices.

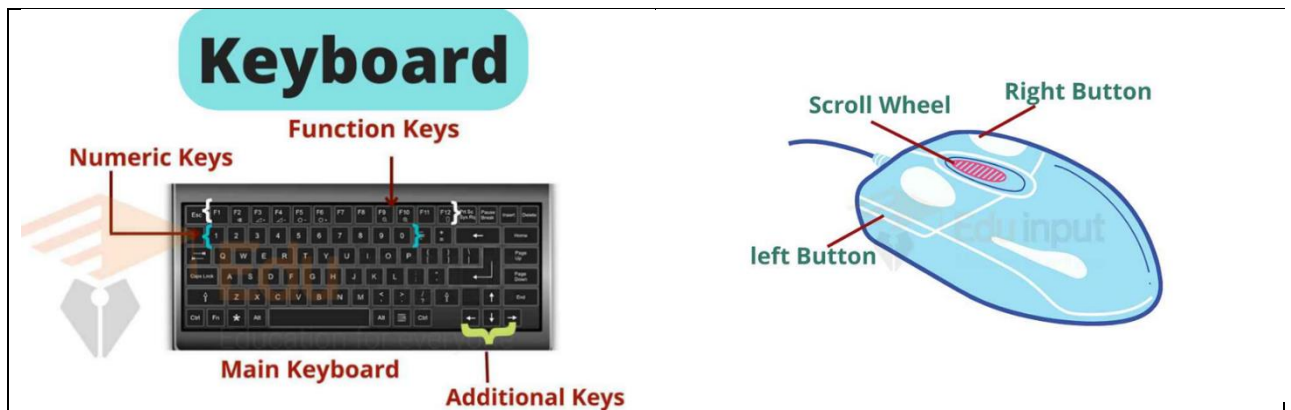
2. Output hardware parts

Output hardware devices are essential components of a computer system that convey information or results processed by the computer to the user or other devices.

They translate digital data into a form that humans or other machines can understand, making the computer's output tangible and accessible.



b *In pairs discuss these input hardware components:*

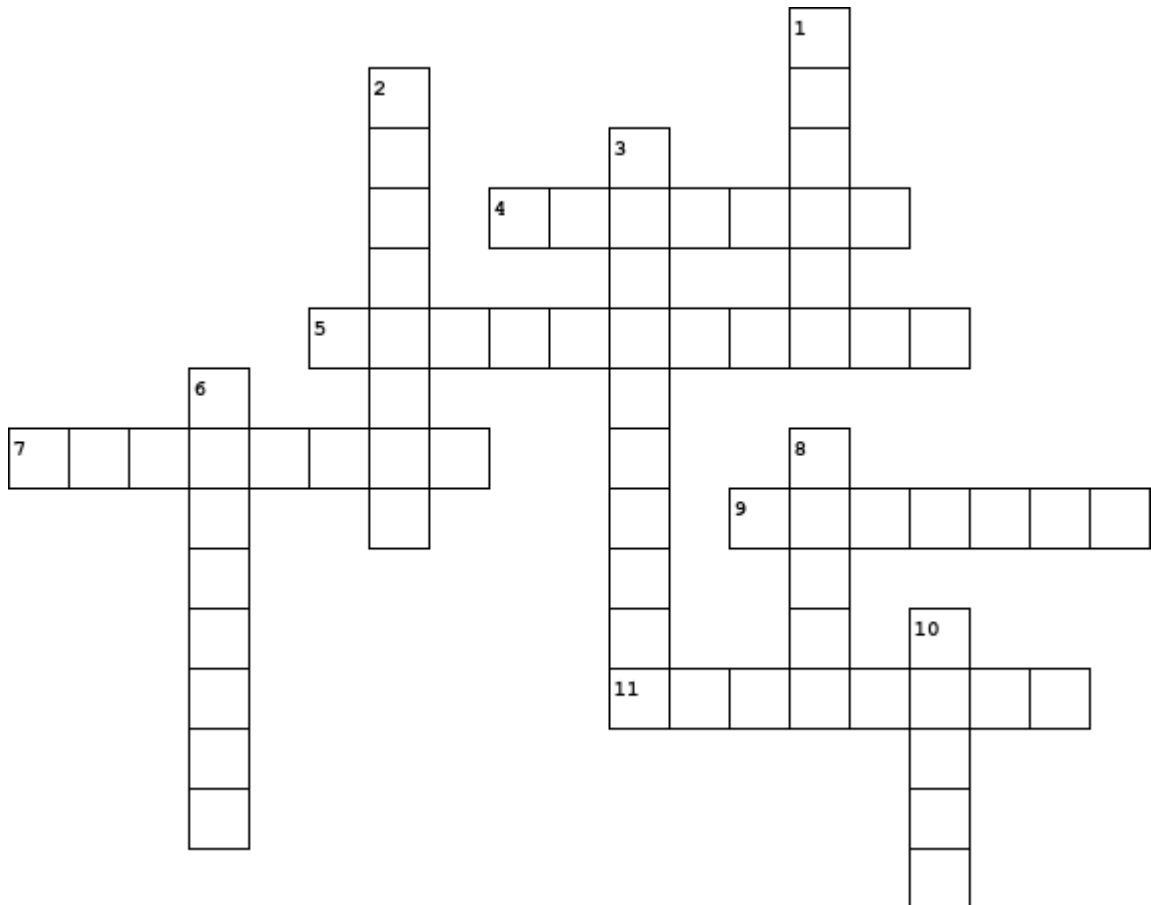


c Match 1-7 to a-g.

1 Keyboard	a) is an audio input device. It is used to enter audio into the computer. The process of entering any sound into the computer is called audio input.
2 Mouse	b) is an input device. It stores images digitally in its memory rather than recording them on film. The picture taken with this device can be transmitted to a computer system. Many of them allow users to edit images.
3 Microphone	c) is the most important input hardware device. Most of the data is entered through this device. There are many buttons on it for different purposes. Every button performs a different function.
4 Camera	d) is a pointing device that is used to point to something and select something on the screen. It is used to enter data hence it is an input external hardware component of a computer.
5 Monitor	e) is an output device. It is used to print character symbols documents etc. The printed copy is called the hard copy. It provides a printed copy of the document.
6 Speakers	f) displays images produced by video cards and are often used as television receivers. Their CRT type uses a vacuum tube while LCDs use liquid

	crystals.
7 Printers	g) are the audio output device. It is used to listen to the audio. The computer has its internal these devices but the voice quality of them is not too good. So the users need to attach external ones for better voice quality.

d Do crossword puzzle.



Across

- 4. The printed copy is called the hard copy.
- 5. It is the heart of the computer and contains the CPU, memory chips, and various connectors.
- 7. It is used to listen to the audio.
- 9. displays images produced by video cards.
- 11. these hardware components are connected to a computer but are not housed within its main case.

Down

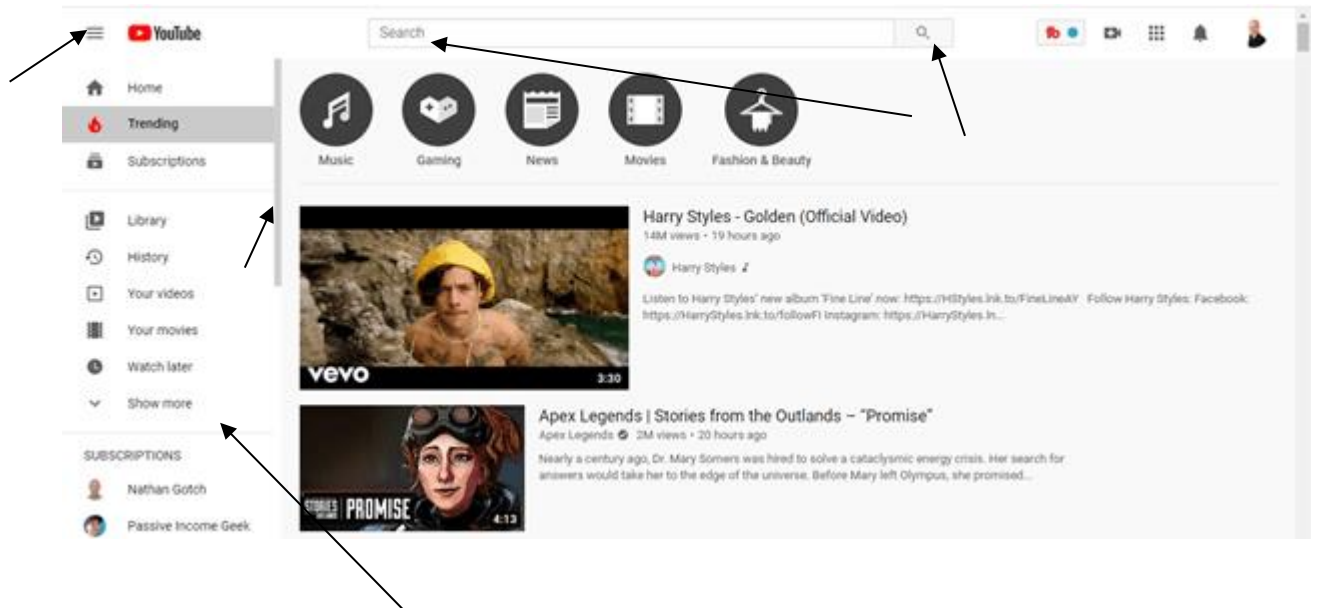
- 1. It stores images digitally in its memory.
- 2. Most of the data is entered through this device.
- 3. an audio input device.
- 6. refers to the physical components of a computer system.
- 8. is a pointing device.
- 10. these hardware devices are used to enter data into the computer.

GUI operations

1 VOCABULARY & SPEAKING

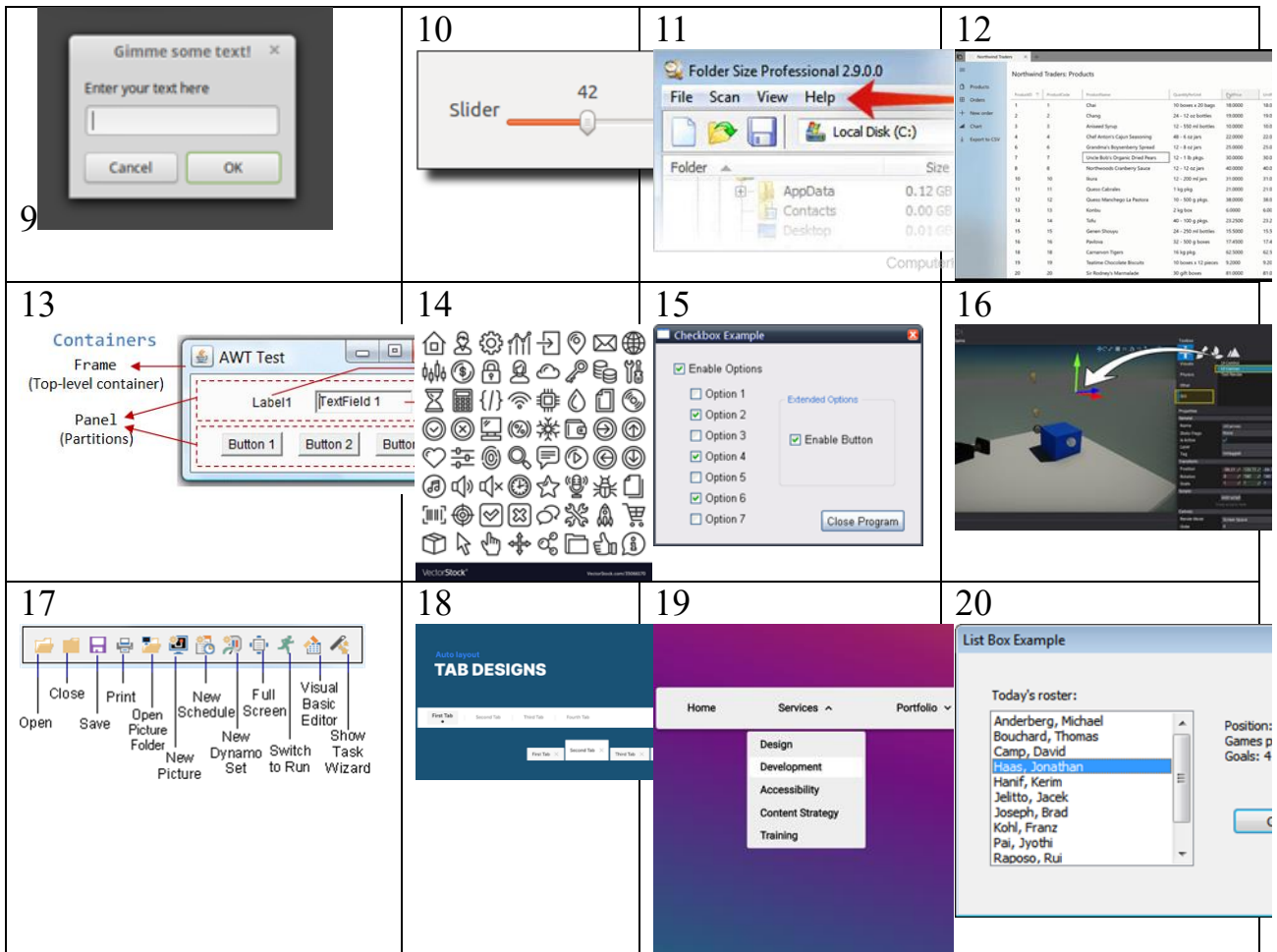
What Is GUI?

a Work in pairs. Look at the screenshot. You are user discuss simple functions like click which allow user to interact with the GUI and triggers the GUI to understand what the user wants.



b Look at the pictures. Match them with proper GUI elements from the list below.

<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>
<p>5</p>	<p>6</p>	<p>7</p>	<p>8</p>



a Window

b Button

c Textbox

d Checkbox

e Radio Button

f Dropdown Menu

g Scrollbar

h Menu Bar

i Toolbar

j Dialog Box

k Slider

l Label

m Progress Bar

n Tooltip

o Canvas

p List Box

q Grid

r Frame

s Tabbed Pane

t Icon

2 READING & SPEAKING

a Read the dialogue. Write out the descriptions of GUI elements.

John: Hello, this is John. How can I assist you today?

Sarah: Hi John, it's Sarah. I'm having trouble with something on my computer.

John: Sure, Sarah. What seems to be the issue?

Sarah: Well, I was trying to use this program, but I don't see where to start. There's just this window on the screen.

John: Ah, I see. The window is the graphical area where the program's content is displayed. Do you see any buttons or options within the window?

Sarah: Yes, there are some buttons at the top, but I'm not sure what they do.

John: Those buttons are part of the menu bar. It's a horizontal bar containing various commands or functions. Try clicking on them to see if they offer any options related to what you're trying to do.

Sarah: Okay, let me try that. Ah, I found a button that says "Start." Should I click on it?

John: Yes, that sounds like the right one. A button is a clickable graphical element used to trigger an action or perform a task. Go ahead and click on it to see what happens.

Sarah: Alright, I clicked on it. Now a dialog box popped up asking for some input. What should I do?

John: A dialog box is a popup window that prompts you to take a specific action or provide input. Look for a textbox where you can enter the required information. It's an area where users can input or edit text.

Sarah: I found it. It's asking me to select some options, but there are checkboxes and radio buttons. What's the difference?

John: A checkbox is a small box that users can check or uncheck to select or deselect an option. On the other hand, a radio button allows users to select only one option from a group of options.

Sarah: Got it. I'll select the appropriate options. Oh, and there's a dropdown menu too. What's that for?

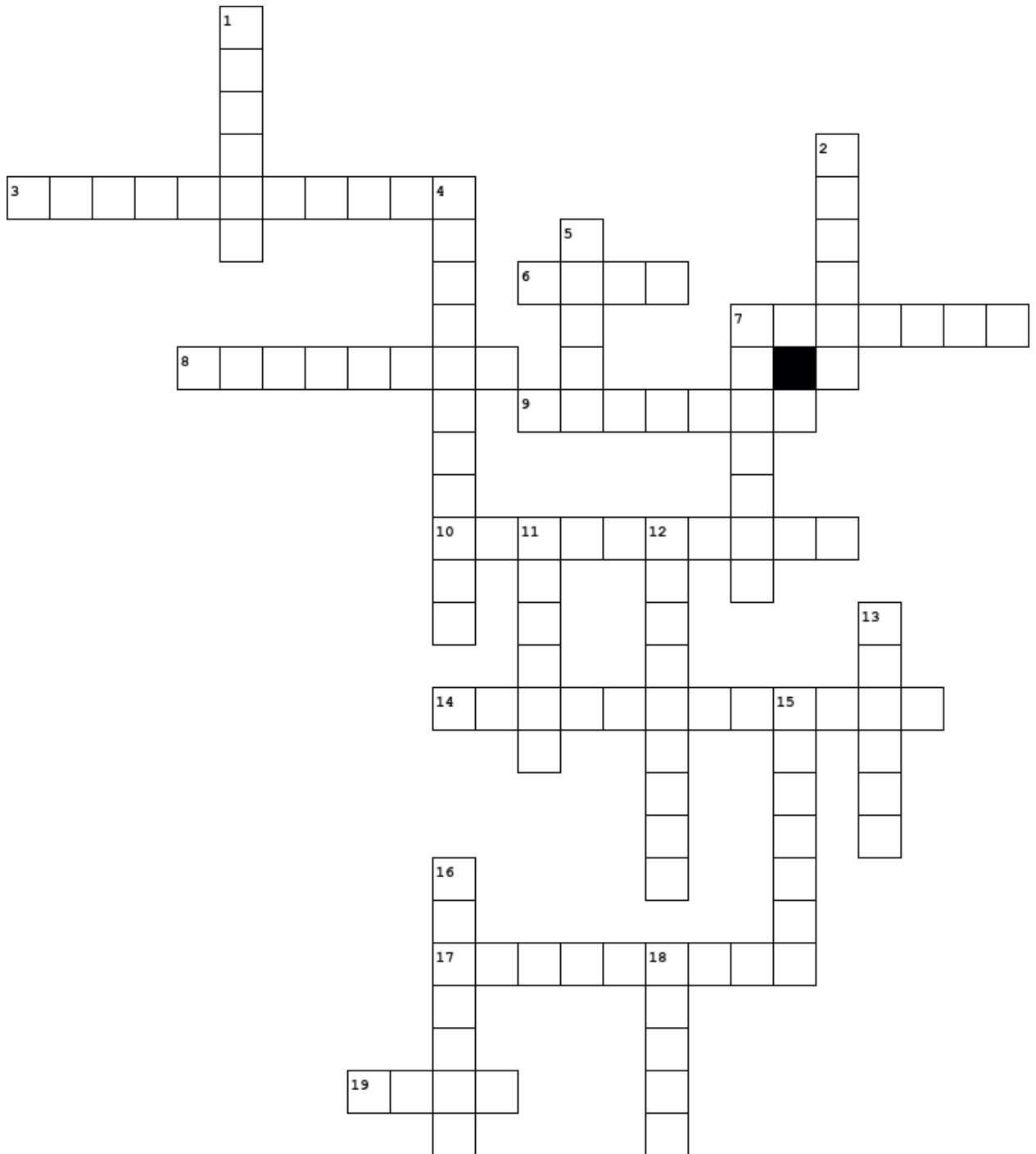
John: A dropdown menu is a list of options that appears when clicked, allowing users to select one option from the list. It's useful for presenting a range of choices in a compact format.

Sarah: Thanks for explaining, John. I managed to navigate through everything now.

John: No problem, Sarah. If you have any more questions, feel free to ask. That's what I'm here for.

b *In pairs, act out the dialogue.*

c *Do the crossword.*



Across

3. A visual indicator that shows the progress of a task or operation.
6. A layout manager used to arrange GUI components in rows and columns, providing a structured appearance.
7. A small pop-up box that appears when hovering over an element, providing additional information or guidance.
8. A small box that users can check or uncheck to select or deselect an option.
9. An area where users can input or edit text.
10. A graphical element that organizes content into multiple tabs, allowing users to switch between different views or sections.
14. A list of options that appears when clicked, allowing users to select one option from the list.
17. A graphical element used to navigate through content that exceeds the visible area of a window or container.
19. A small graphical symbol or image representing a file, folder, or function.

Down

1. A graphical element that allows users to select a value from a range by dragging a handle along a track.
2. A graphical area on the screen that displays the content of an application or program.
4. A graphical element that allows users to select one option from a group of options.
5. A container used to group and organize GUI components within a window or panel.
7. A row of graphical icons or buttons used to provide quick access to commonly used functions or commands.
11. A clickable graphical element used to trigger an action or perform a task.
12. A popup window that prompts the user to take a specific action or provide input.
13. A graphical area where users can draw or display custom graphics or images.
15. A horizontal bar containing a set of menu items that provide access to various commands or functions.
16. A graphical element that displays a list of items from which users can select one or more options.
18. A static text element used to display descriptive text or instructions to the user.

d Make a list: Which of next features you consider as advantages and disadvantages of GUI. Explain their meaning.

User-friendliness	Efficiency	Clarity	Aesthetic	Accessibility
Speed	Memory usage	Lack of flexibility	Inefficiency	Build

3 READING

a Read the text

A GUI (graphical user interface) is a system of interactive visual components for computer software. A GUI displays objects that convey information and represent actions that the user can take. The objects change color, size, or visibility when the user interacts with them.

The GUI was created at Xerox PARC (Palo Alto Research Center) by Alan Kay, Douglas Engelbart, and other researchers in 1981. Later, Apple introduced the Lisa computer with a GUI on January 19, 1983.

A GUI includes GUI objects, like icons, cursors, and buttons. These graphical elements are sometimes enhanced with sounds or visual effects like transparency and drop shadows. Using these objects, a user can use the computer without knowing commands.

A GUI uses windows, icons, and menus to perform tasks like opening, deleting, and moving files. Although a GUI operating system is primarily navigated using a mouse, a keyboard can also be used via keyboard shortcuts or arrow keys.

For example, if you want to open a program on a GUI system, move the mouse pointer to the program's icon and double-click it. With a command line interface, you need to know the commands to navigate to the directory containing the program, list the files, and then run the file.

A GUI is considered to be more user-friendly than a text-based command-line interface, such as MS-DOS or the shell of Unix-like operating systems.

Unlike a command-line operating system or CUI (command-line user interface), like Unix or MS-DOS, GUI operating systems are easier to learn and use because commands do not need to be memorized. Additionally, users do not need to know any programming languages. Because of their ease of use and more modern appearance, GUI operating systems are the primary ones used today.

Today, most operating systems are GUI operating systems that may have a command line as part of that interface. Below are examples of GUI operating systems that can be installed on a computer.

Microsoft Windows

Apple System 7 and macOS

ChromeOS

Linux variants like Ubuntu use a GUI interface.

Are all operating systems GUI? No. Early command line operating systems like MS-DOS and some versions of Linux today have no GUI interface.

A pointing device, such as the mouse, interacts with nearly all aspects of the GUI. More modern (and mobile) devices also utilize a touch screen. But a GUI doesn't require a mouse. Nearly all GUI interfaces, including Microsoft Windows, have options for navigating the interface with a keyboard if you know the keyboard shortcuts.

b *In pairs, do the quiz.*

1 What does GUI stand for?

- A. Graphical User Input
- B. Graphical User Interface
- C. General User Interface
- D. General User Input

2 When was the GUI created at Xerox PARC?

- A. 1978
- B. 1981
- C. 1983
- D. 1985

3 Which of the following is NOT a GUI object?

- A. Icons
- B. Cursors
- C. Commands
- D. Buttons

4 How is a GUI primarily navigated?

- A. Using a keyboard only
- B. Using a mouse only
- C. Using a combination of a keyboard and a mouse
- D. Using voice commands

5 Which operating system is considered more user-friendly than a text-based command-line interface?

- A. MS-DOS
- B. Unix-like operating systems
- C. GUI operating systems
- D. Shell of Unix-like operating systems

6 What is a characteristic of GUI operating systems?

- A. They require memorization of commands.
- B. Users need to know programming languages.
- C. They are less user-friendly than command-line interfaces.
- D. They have a modern appearance and are easier to learn and use.

7 Which of the following is NOT an example of a GUI operating system?

- A. Microsoft Windows
- B. ChromeOS
- C. Unix
- D. macOS

8 Which type of devices interact with nearly all aspects of the GUI?

- A. Keyboard
- B. Monitor
- C. Mouse
- D. Printer

9 Can a GUI interface be navigated without a mouse?

- A. Yes
- B. No

OPERATING SYSTEMS

1 READING

a Read the text.

What's an operating system?

An operating system is the most important software that runs on a computer. It manages the computer's memory and processes, as well as all of its software and hardware. It also allows you to communicate with the computer without knowing how to speak the computer's language. Without an operating system, a computer is useless.

Your computer's operating system (OS) manages all of the software and hardware on the computer. Most of the time, there are several different computer programs running at the same time, and they all need to access your computer's central processing unit (CPU), memory, and storage. The operating system coordinates all of this to make sure each program gets what it needs.

Types of operating systems

Operating systems usually come pre-loaded on any computer you buy. Most people use the operating system that comes with their computer, but it's possible to

upgrade or even change operating systems. The three most common operating systems for personal computers are Microsoft Windows, macOS, and Linux.

Modern operating systems use a graphical user interface, or GUI (pronounced gooey). A GUI lets you use your mouse to click icons, buttons, and menus, and everything is clearly displayed on the screen using a combination of graphics and text.

Each operating system's GUI has a different look and feel, so if you switch to a different operating system it may seem unfamiliar at first. However, modern operating systems are designed to be easy to use, and most of the basic principles are the same.

Microsoft Windows

Microsoft created the Windows operating system in the mid-1980s. There have been many different versions of Windows, but the most recent ones are Windows 10 (released in 2015), Windows 8 (2012), Windows 7 (2009), and Windows Vista (2007). Windows comes pre-loaded on most new PCs, which helps to make it the most popular operating system in the world.

macOS

macOS (previously called OS X) is a line of operating systems created by Apple. It comes preloaded on all Macintosh computers, or Macs. Some of the specific versions include Mojave (released in 2018), High Sierra (2017), and Sierra (2016).

According to StatCounter Global Stats, macOS users account for less than 10% of global operating systems—much lower than the percentage of Windows users (more than 80%). One reason for this is that Apple computers tend to be more expensive. However, many people do prefer the look and feel of macOS over Windows.

Linux

Linux (pronounced LINN-ux) is a family of open-source operating systems, which means they can be modified and distributed by anyone around the world. This is different from proprietary software like Windows, which can only be modified by the company that owns it. The advantages of Linux are that it is free, and there are many different distributions—or versions—you can choose from.

According to StatCounter Global Stats, Linux users account for less than 2% of global operating systems. However, most servers run Linux because it's relatively easy to customize.

b Answer the questions from the text.

What is the primary role of an operating system in a computer?

- A) To manage the computer's memory and processes, as well as all software and hardware
- B) To manage software installation only
- C) To serve as an antivirus program
- D) To provide an entertainment platform

What would happen to a computer without an operating system?

- A) It would have less software compatibility
- B) It would run more efficiently
- C) It would be completely useless
- D) It would only run a single program at a time

Can operating systems be changed or upgraded after purchasing a computer?

- A) Yes, but only on personal computers
- B) No, because the hardware is not compatible with more than one OS
- C) Yes, it's possible to upgrade or change operating systems
- D) No, the pre-loaded operating system cannot be changed

Which of the following is NOT one of the three most common operating systems for personal computers?

- A) Linux
- B) Android
- C) Microsoft Windows
- D) macOS

What is a GUI in the context of operating systems?

- A) Graphical Unifying Interface
- B) Generic Utility Infrastructure
- C) General User Input
- D) Graphical User Interface

How do modern operating systems typically display information on the screen?

- A) Using text-only interfaces
- B) Exclusively through audio feedback
- C) Through command-line interfaces only
- D) Through a combination of graphics and text

Why might an operating system seem unfamiliar when you switch to a different one?

- A) Because each operating system's GUI has a different look and feel
- B) Because different operating systems are more prone to viruses
- C) Because it might have different compatibility with software
- D) Because all your files are deleted when you switch

What is 'gooey' a colloquial pronunciation for in the context of operating systems?

- A) Graphical User Interface
- B) Global Operating Oscillatory Environment
- C) Generally Obscure Operating Yield
- D) General Universal Output Interface

What commonality do modern operating systems share despite having different GUIs?

- A) They all come from the same software company
- B) They only run on one type of processor
- C) They all use the exact same icons and menus

D) They are designed to be easy to use

How does the operating system ensure that multiple programs running simultaneously on a computer operate efficiently?

A) By assigning all resources to the most important program

B) By limiting each program to a single task

C) By coordinating access to the CPU, memory, and storage

D) By storing all files in a centralized location

c Read the dialogue. Then write out from the dialogue system requirements for installing Windows 10 then act the dialogue.

Customer: Hi there! I'm in a bit of a pickle. I need a computer urgently for work, but I don't know the first thing about them!

Sales Assistant: No problem at all! I'm here to help. What kind of work will you be doing on the computer?

Customer: Honestly, I'm not entirely sure. I just got a new job, and they told me I need a computer pronto. But I do remember them mentioning something about needing Windows 10?

Sales Assistant: Ah, got it! Windows 10 is a great choice. Let me check the system requirements to see what kind of computer you'll need.

(Customer nervously twiddles thumbs while the sales assistant types away on the computer.)

Sales Assistant: Alright, it looks like you'll need a computer with at least a 1GHz processor, 1GB of RAM for a 32-bit operating system, and 16GB of storage. Oh, and don't forget about the graphics card and display resolution!

Customer: (scratches head) Um, sorry, could you repeat that? I think you lost me at "1GHz processor."

Sales Assistant: (smiling sympathetically) No worries! Basically, you'll need a computer that's fast enough to run Windows 10 smoothly, with enough memory and storage space to store all your files and programs.

Customer: Gotcha! So, like, a supercomputer or something?

Sales Assistant: (trying not to laugh) Not quite! But we do have some great options that meet these requirements without breaking the bank. Let's find you something that'll get the job done without blowing your budget!

d In pairs, act out the dialogue.

2 SPEAKING

a Read the instructions of Windows 10 installation.

Full installation

Before you start:

- Make sure you have a stable internet connection.

- Get a blank USB drive with at least 8GB of storage space. You'll need to erase everything on the drive, so use a blank one if you can.

This will erase everything and install a clean version of Windows 10. Follow these steps:

Step 1: Download and Open Windows 10 installation media from [Microsoft's website](#).

Step 2: Accept license terms by choosing Accept.

Step 3: Choose Create installation media and click Next.

Step 4: Click Next.

Step 5: Choose USB flash drive and click Next to proceed.

Step 6: Plug your USB Device into the PC

Step 7: Select the drive to install Windows and click Next. This will erase and reformat the drive.

Step 8: Windows 10 is now being downloaded into your USB device. Wait until this process finishes and close the setup window.

Step 9: Plug your USB Device (as a bootable device now) with Windows 10 installer into a new PC.

Step 10: Turn on your new computer and access the BIOS/UEFI (typically using F2, F10, or Del).

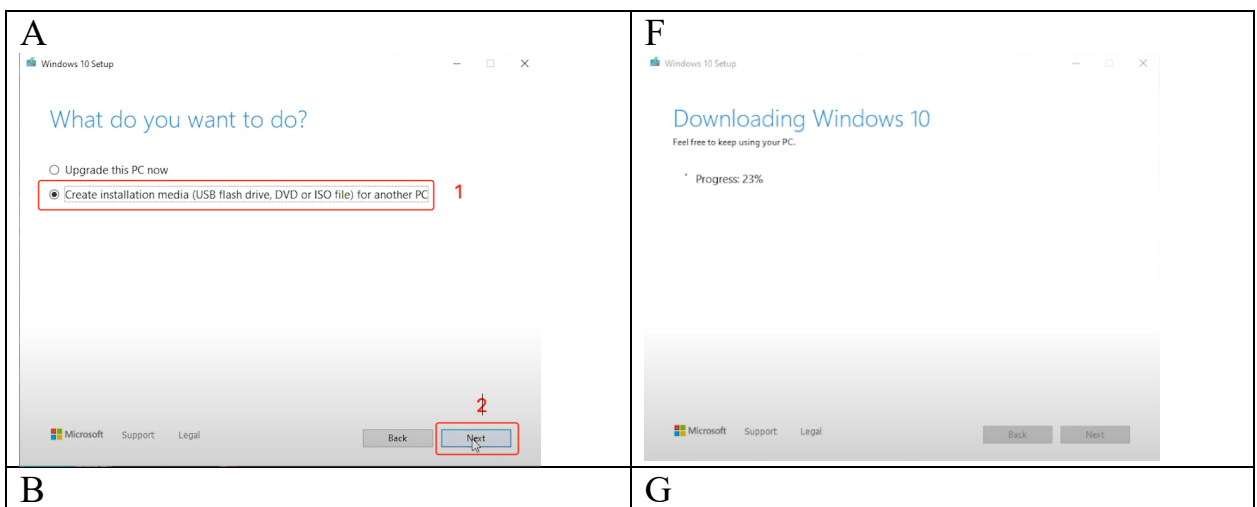
Step 11: In BIOS/UEFI, set the USB flash drive as the first boot option.

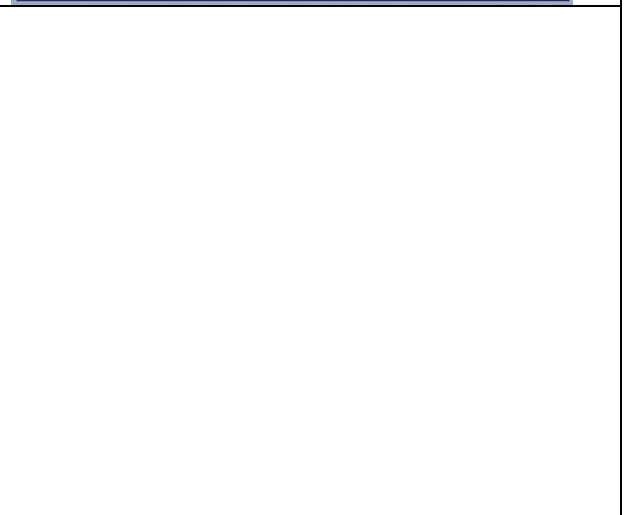
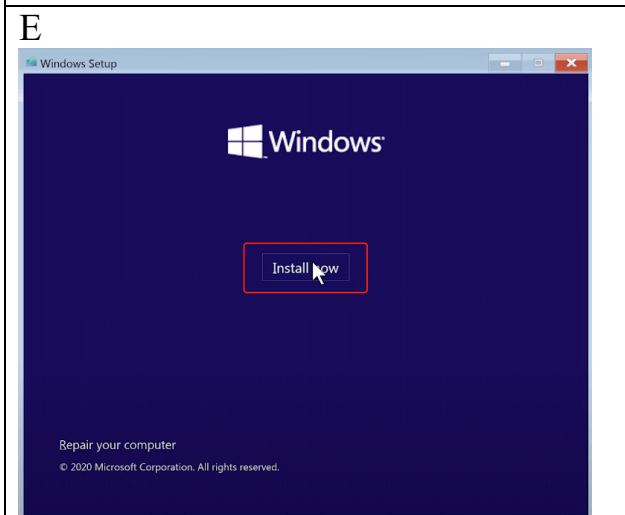
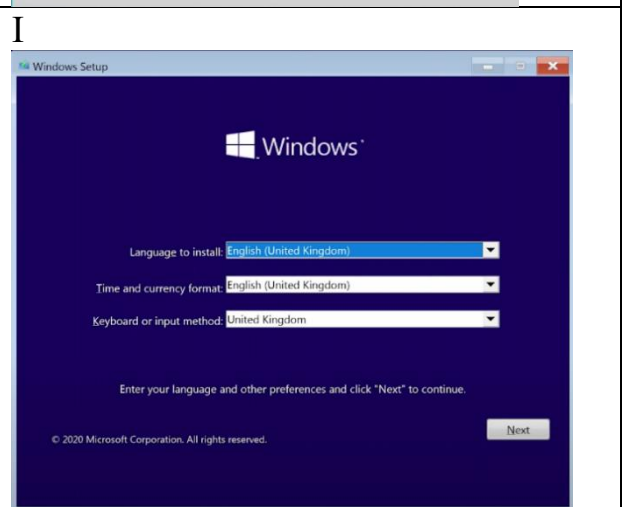
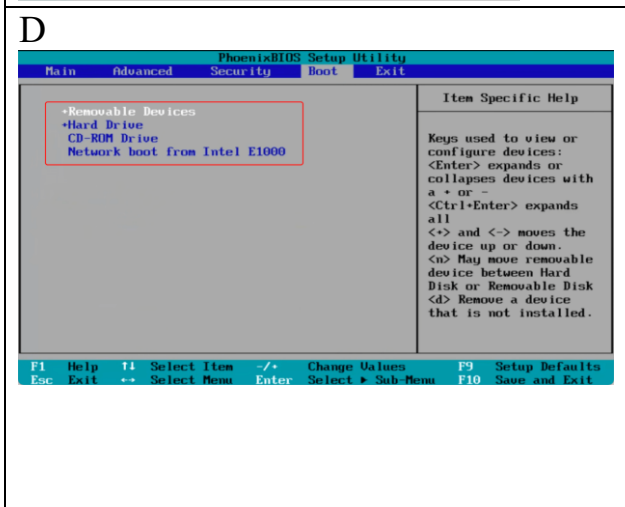
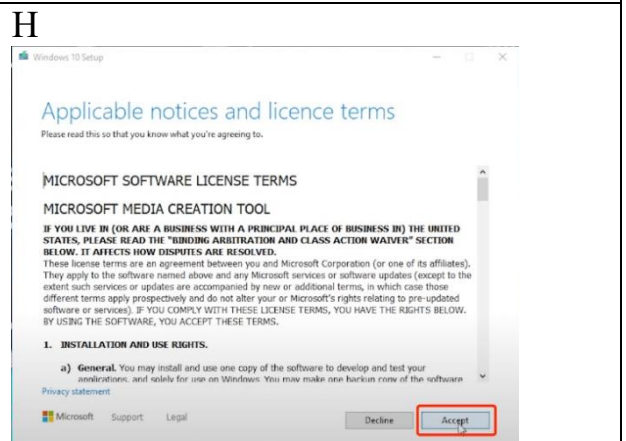
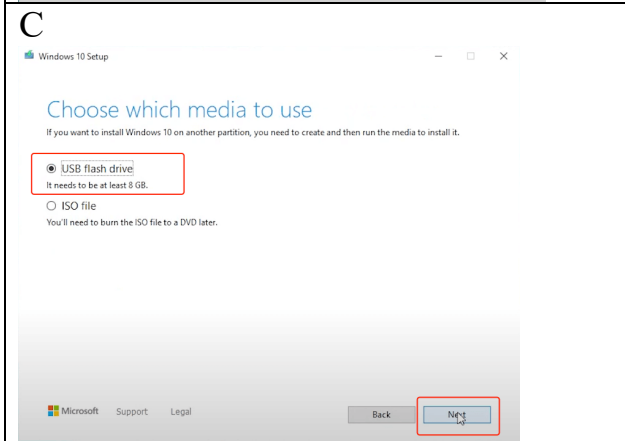
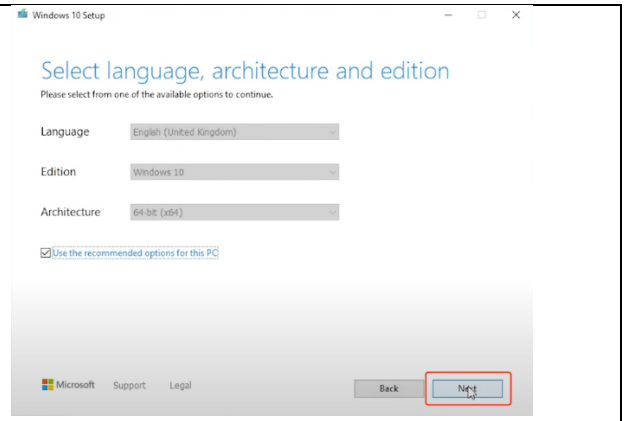
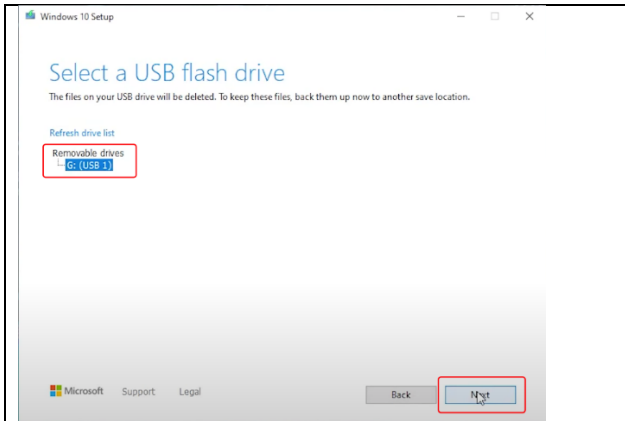
Step 12: Save changes and exit. Your PC will reboot from the USB drive.

Step 13: When the Windows Setup appears, select language, time/currency format, etc. then choose Next.

Step 14: After that, Click Install Now and follow the prompts to set up Windows.

b Put the pictures into the right order. Indicate to which steps above the pictures related to.



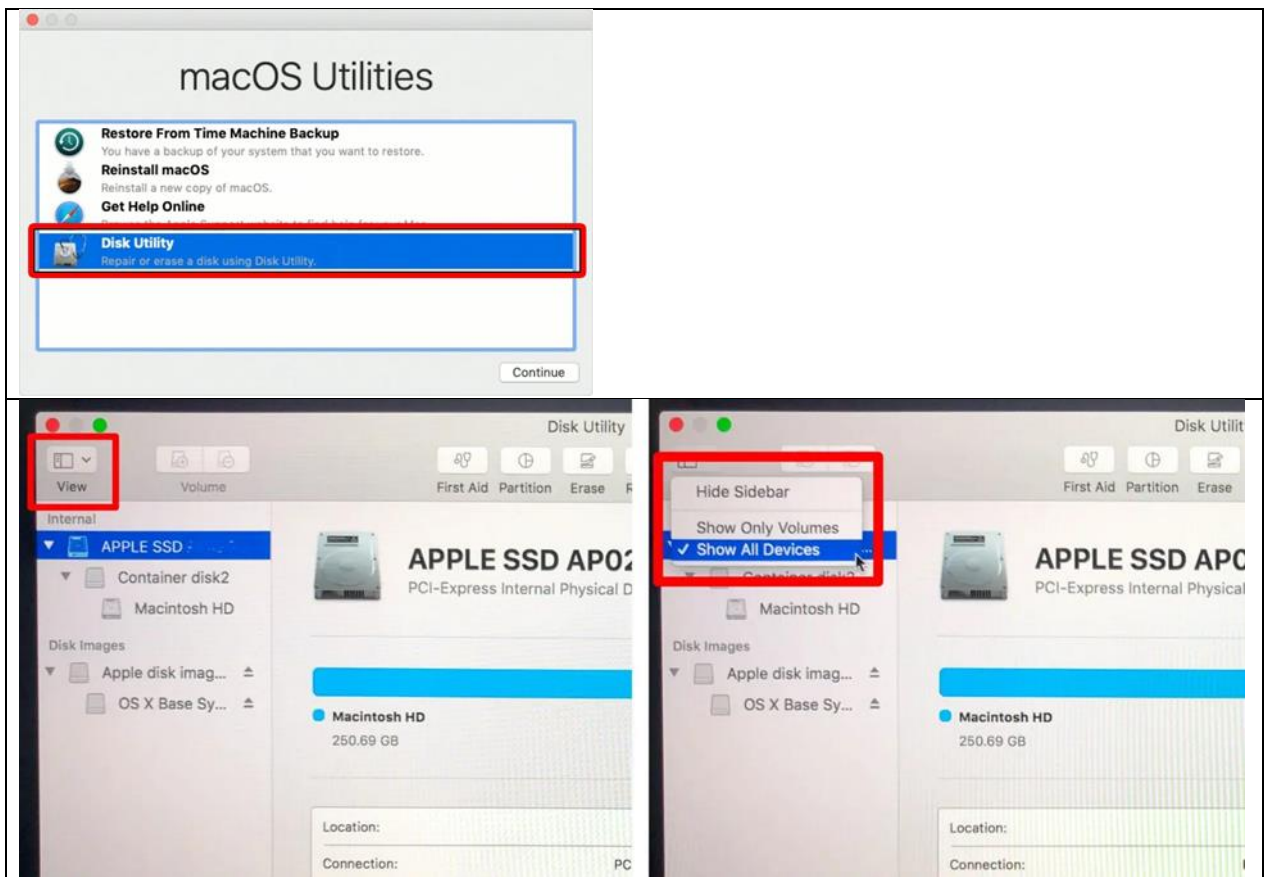


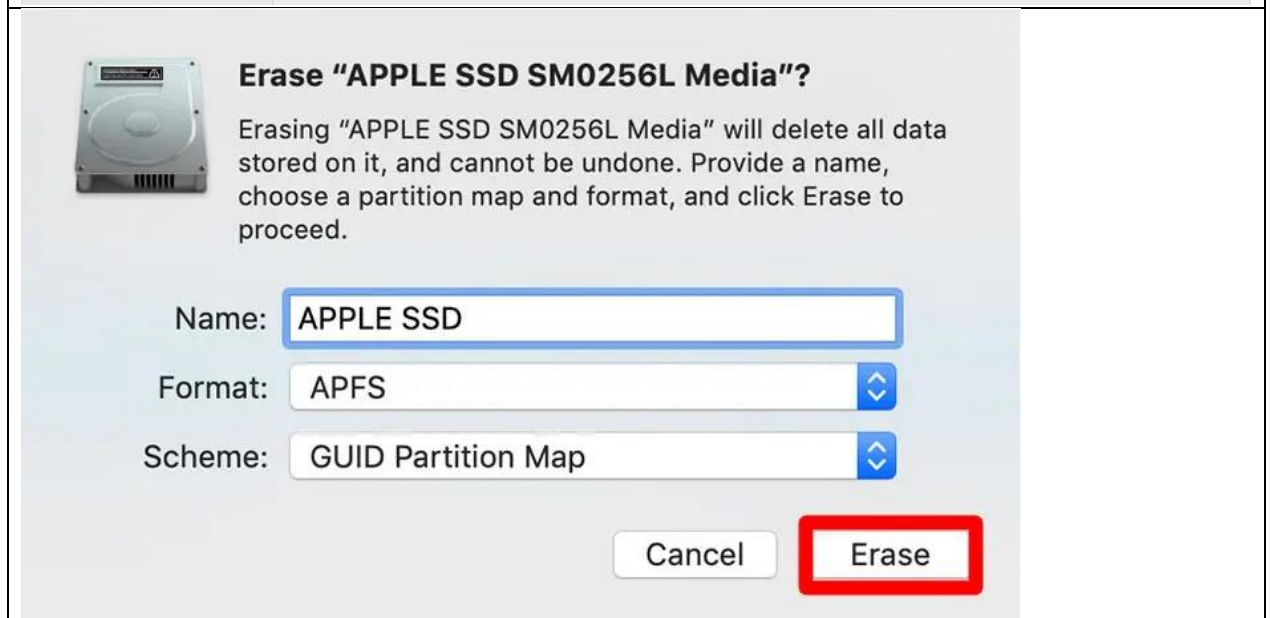
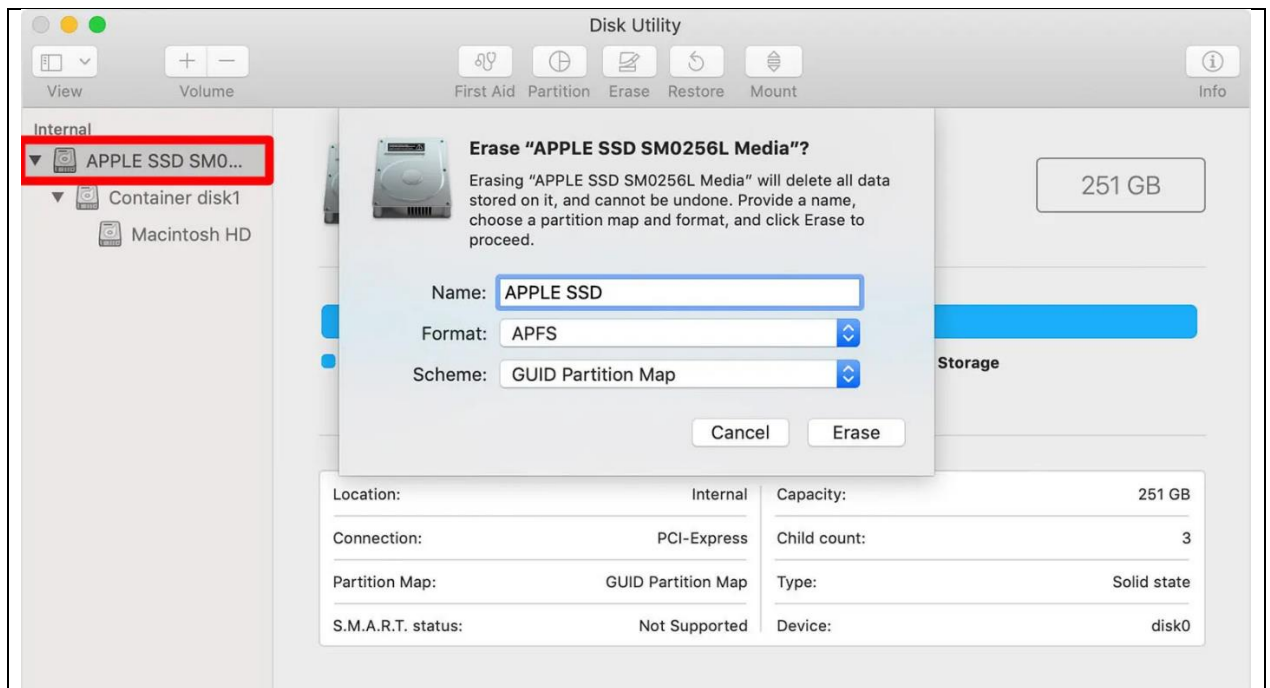
- Step ____ picture ____
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- Step ____ picture ____

How to Install macOS By Wiping Hard Drive First

If you wish to do a clean installation of your Mac operating system, you will need to wipe the internal hard drive first. You should do this if you are selling your device or giving it to someone else to use.

c Look at the pictures that describe some steps and show the correct order of installing macOS by wiping hard drive first.





d Put these steps in right order.

- ___ While your computer is restarting, press and holding the Command + R keys.
- ___ Click Erase and fill in the name, format, and Scheme.
- ___ Select your Mac's drive and then click Erase. This will be the highest option in the device tree.
- ___ Restart your Mac.
- ___ Select Erase by the bottom right corner of the screen. This step will start the process of wiping your Mac's hard drive. This process will take a few hours, so make sure that your Mac is plugged in. When prompted, click Done.
- ___ Click View > Show All Devices.
- ___ Click Disc Utility and then click continue.

____ Once your data is wiped, you can then start the reinstallation process. If you are in the functioning recovery partition when you boot, you will see the Reinstall macOS option. Click the button, and the process will start.

e The operating systems we've been talking about so far were designed to run on desktop and laptop computers. In pairs, answer the question: What operating systems do **Mobile devices** such as **phones, tablet computers, and MP3 players** run?

d Read the dialogue. Write an e-mail to your line manager. The customer remained unsatisfied and filed a complaint. Explain your position.

Customer: Hi there! I'm looking to buy a computer and a smartphone today. Can you help me out?

Sales Assistant: Of course! We have a wide range of options available. What kind of computer and smartphone are you looking for?

Customer: Well, I need a computer for work, and I want a smartphone for staying connected on the go. Also, I heard about this JNE operating system and I want it installed on both devices. Can you do that?

Sales Assistant: Hmm, I'm not quite familiar with the JNE operating system. But let me check if we have any devices that support it.

(Customer waits patiently as the sales assistant checks the computer and smartphone options.)

Sales Assistant: I'm sorry, ma'am, but it seems like the JNE operating system isn't one that we offer. However, we do have computers and smartphones that run on other popular operating systems like Windows, macOS, iOS, and Android.

Customer: Oh, I see. Well, in that case, can you recommend a computer and smartphone with the most popular operating systems?

Sales Assistant: Absolutely! For a computer, we have options with Windows or macOS, depending on your preference. And for a smartphone, we have devices with Apple iOS or Google Android.

Customer: Great! I'll take one of each, please. Can you also help me set them up and transfer my data?

Sales Assistant: Of course! We offer setup and data transfer services for all our devices. Just let me know which ones you choose, and we'll take care of the rest.

UNIT III

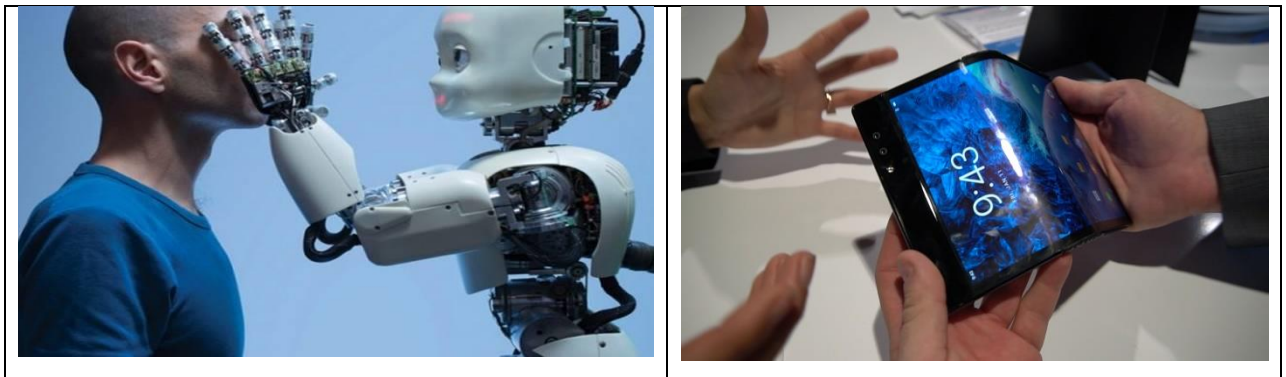
Data communication



LEAD-IN

Task 1.

Look at the pictures and discuss the influence of these devices on human lives in our century.



SPEAKING

Task 2.

Discuss with your partner and give reasons for your answer.

What types of the Internet connection do you use in your everyday life and in your studying?

What types of networks are the most secure and why? Give your reasons.

Task 3.

Work in pairs or small groups

- what networks are better: wired or wireless;
- what are the advantages and disadvantages of different types of networks?
- make your predictions of the future of communication networks

TASK 3

VOCABULARY

Match the words (1 – 5) with their definitions (a – e) and make up your own story with given words

- | | |
|-------------|-------------------------------------|
| 1) topology | a) electrical channel |
| 2) node | b) the layout or shape of a network |
| 3) gateway | c) a set of rules |
| 4) protocol | d) any computer device in a network |
| 5) bus | e) a piece of networking hardware |

READING

Task 4.

Read the text quickly and make the diagram on network topology.

Discuss advantages and disadvantages associated with each type of topology given in the text.

NETWORK TOPOLOGY

"Point-to-point" topology is used to connect two digital devices within a network. The network wiring can be referred to a single line between two devices. For this purpose a twisted pair of wires, a coaxial cable, and an optical fibre. Thus, the "shape" of a network is technically known as its topology.

If there are more devices or nodes on the network, we can talk about different types of network configuration such as bus topology, star topology or ring topology.

Bus topology is the simplest one for installation and maintenance. Nodes can be easily added or removed with minimal wiring changes. On the other hand, one bus network must handle all communication signals from all nodes. This is known as broadcast networking, and is analogous to a group of people talking to each other over a single telephone connection, where only one person can talk at a time (limiting data exchange rates), and everyone can hear other people when they are talking (it concerns data security issue). Though, a fault in the bus wiring causes isolation of nodes into groups.

Star topology. At branching points in the network such devices as "gateways" can restrict data flow between nodes, allowing private communication between specific groups of nodes. This concerns the issues of the speed and security in the simple bus topology. However, those branches could easily be deleted from the rest of the "star" network if one of the gateways were to fail. Such a switched network is similar to the standard telephone system.

Ring topology. This kind of topology provides the highest degree of reliability with the least amount of wiring. Since each node has two connection points to the ring, a single break in any part of the ring doesn't affect the integrity of the network. The devices, however, must be designed with this topology in mind. Also, the network must be interrupted to install or remove nodes. As with bus topology, ring networks are broadcast by nature.

To achieve the best result, two or more ring topologies may be combined for specific purpose. This is often, true for industrial networks. Engineers and technicians joint multiple networks together in order to share wide information resources.

In addition to the issue of the physical network structure (signal types and voltage levels, connector pinouts, cabling, topology, etc.), there must be a standardized way in which communication can be provided between

multiple nodes in a network, even in a simple two-node, point-to-point system.

When a node “talks” on the network, a signal is generating on the network wiring. Nodes that "listen" are simply measuring that applied signal on the network (from the transmitting node) and passively monitoring it. If two or more nodes "talk" at the same time, however, their output signals may clash (imagine two logic gates trying to apply opposite signal voltages to a single line on a bus!), corrupting the transmitted data. The standardized method by which nodes are allowed to transmit to the bus or network wiring is called a protocol. There are many different protocols for providing the use of a common network among multiple nodes.

The Internet is a global collection of networks that are interconnected with each other on the basis of a common networking standard called TCP/IP (Transmission Control Protocol/Internet Protocol).

Task 5.

Read the text and fill in the gaps with the missing words and expressions given below.

Discuss with your partner what do we use e-mail for? Give your reasons.

over the Internet, from other, often, on the Internet, on other system, on an Internet computer, by your ISP.

E-mail features

Internet e-mail works essentially the same as e-mail _____ – messages can be created, sent, forwarded, stored, printed, and deleted. To receive e-mail _____, you must have a mailbox, which is a file used to collect your messages _____. Although your mailbox can be located anywhere _____, it usually is located on the computer that connects you to the Internet, such as the server operated _____. Most ISPs and

online services provide an Internet e-mail program and a mailbox as a standard part of their Internet access services.

An Internet mailbox address is a combination of a user name and the domain name that identifies the location of the mailbox computer. Your user name, or user-ID, is a unique combination of characters that identifies you. It must be different _____ user names located on the same mailbox computer. A user name sometimes is limited to eight characters and _____ is a combination of your first and last names, such as the initial of your first name plus your last name.

Task 6.

SPEAKING

A friend of yours didn't understand chat abbreviations you used while talking online. Write an email using all phrasal verbs given above to your friend explaining to him the meanings of the most common used chat abbreviations.

to be free of charge, to purchase at relatively low cost, to be trained in something, to be faced with something, to ensure compatibility with something, to connect to something via something

Task 7.

WRITING

You are having problems with the internet connection. Write an e-mail to your Internet Service Provider to complain and ask the company to help you in solving the problem.

Task 8

What types of network do you use? Give reasons for your choice.
Complete the chart to organize your ideas:

<i>Name:</i>	<i>Type:</i>
--------------	--------------

<i>Advantages:</i>	<i>Disadvantages:</i>
<i>Special features:</i>	<i>How would you improve it:</i>
<i>Typical user:</i>	
<i>Conclusion:</i>	

FINAL PROJECT

Task 9

In pairs or groups, list all the advantages or disadvantages of a network. Then together consider how the disadvantages can be minimized.

<i>Team 1</i>	<i>Team 2</i>
<i>Advantages:</i>	
<i>Disadvantages:</i>	
<i>Possible solutions to minimize disadvantages:</i>	
<i>Conclusion:</i>	

UNIT IV

Administration



LEAD-IN

Task 1.

Discuss questions with your partner and give your reasons for your answer.

- Can you imagine a world without technology?
- Make a list of the ways you use databases, spreadsheets and formulae at everyday life and in your free time.

Task 2.

Work in pairs or in small groups

- features of spreadsheet programs;
- applications of databases;
- is it safe to keep your personal information in databases?

VOCABULARY

Task 3.

Match the sentence halves (1 – 8) with (a – h).

1. Databases are structured to facilitate
2. A database is stored as a file or a set of files on
3. Using keywords and various sorting commands, users can rapidly
4. The power of a DBMS comes from its ability to define new relationships from
5. In flat databases, records are organized according to
6. The records in hierarchical databases are organized in a treelike structure
7. The largest databases are usually maintained
8. Increasingly, formerly separate databases are being combined

- a) magnetic disk or tape, optical disk, or some other secondary storage device.
- b) search, rearrange, group, and select the fields in many records to retrieve or create reports on particular aggregates of data.
- c) the storage, retrieval, modification and deletion of data.
- d) by governmental agencies, business organizations, and universities.
- e) with each level of records, branching off into a set of smaller categories.
- f) a simple list of entities.
- g) the basic ones given by the tables and to use them to get responses to queries.
- h) electronically into larger collections known as data warehouses.

Task 4.

Match the words (1 – 6) with (a – f) to make technical terms and be ready to explain it in English.

- | | |
|-----------------|---------------|
| 1) optical | a) programs |
| 2) a string of | b) storage |
| 3) spreadsheet | c) linkages |
| 4) treelike | d) access |
| 5) hierarchical | e) structure |
| 6) data | f) database |
| 7) random | g) disk |
| 8) multiple | h) characters |

READING

Task 5.

Read the text and fill the gaps with missing words given below.

asymmetric key encryption, encryption, digital signatures, public key encryption, encryption key, symmetric key encryption, encryption algorithm, decryption

Data security

The primary method of maintaining the security of data, both on internal systems and transmitted data is by encrypting the data. _____ is the process of altering data so that unauthorized users cannot view it. _____ is the process of converting encrypted data back to its original state. Data stored in files or a database on hard drives or other storage devices can be encrypted to protect it against theft. Data sent across a network can be encrypted to prevent eavesdropping or theft during transmission. A thief or eavesdropper who steals or intercepts encrypted data receives a meaningless group of bits that are difficult or impossible to convert back into the original data.

An _____ is a complex mathematical transformation that encrypts or decrypts binary data. An encryption key is a binary input to the encryption algorithm—typically a long string of bits.

The encryption algorithm varies the data transformation based on the _____ so that data can be decrypted only with the same key or a compatible decryption key.

A significant problem with _____ is that both sender and receiver use the same key, which must be created and shared in a secure manner. Security is compromised if the key is transmitted over the same channel as messages encrypted with the key.

Also, sharing a key among many users increases the possibility of key theft. _____ uses different but compatible keys to encrypt and decrypt data. _____ is a form of asymmetric key encryption that uses a public key for encryption and a private key for decryption. The two keys are like a matched pair. After information is encrypted with the public key, it can be decrypted only with the private key. It cannot be decrypted with the same public key that encrypted it. Organizations that use this technique broadcast their public key so that it is freely available to anybody who wants it.

Some asymmetric encryption methods can encrypt and decrypt messages in both directions. That is, in addition to encrypting a message with the public key that can be decrypted with the private key, an organization can also encrypt a message with the private key and decrypt it with the public key. Notice that both keys must still work as a pair, but the message can go forward or backward through the encryption/decryption pair. This second technique is the basis for _____ and certificates.

SPEAKING

Task 6.

Imagine you are responsible for choosing an appropriate database system for a new office.

Conduct a research, compare two/three suitable options and write a short report for your boss reasoning your choice.

WRITING

Task 6.

Nowadays a great amount of information is stored in electronic databases. Write about the databases security measures.

UNIT V

Choice



1 VOCABULARY & SPEAKING

In pairs, answer the questions.

1. What are the key factors to consider when choosing a hosting provider for a website?
2. How does the type of website (e.g., personal blog, e-commerce site, corporate website, drag-and-drop website builder) influence the choice of hosting plan?
3. What role does customer support play in the hosting decision-making process, and what level of support should individuals or businesses look for in a hosting provider?
4. In what ways can scalability and flexibility impact the choice of hosting solution, especially for websites experiencing growth or fluctuations in traffic?

2 READING

You are going to read about Most Popular Types of Web Hosting.

a *Read the introduction and answer the questions.*

- 1) How would people be able to access your website without web hosting?
- 2) What is “server”?
- 3) What does server do?
- 4) How are web hosting and server related to each other?

Web Hosting

What makes a great website? Design, content, and features are all part of the mix, but the truth is that no one would be able to access your site without web hosting.

Every website is stored on a server. That server makes the website available to users on the web. Web hosting is the service of storing (aka hosting) a website on a server.

Your “web host” or “hosting provider” is the company that owns and maintains the web server that hosts your site. In addition, these companies often provide helpful resources, support, and services like domain registration and custom email addresses.

Ideally, you’ll want to use a hosting plan that fits your needs and budget.

The Most Popular Types of Web Hosting

Shared Hosting

Shared hosting plans are the most popular choice among website owners. On this type of plan, a single server is shared between multiple users. That means a single computer will host a whole heap of websites.

Although you share resources with other users, they don’t have access to your files, information, or other data.

Think of it like having a timeshare on an exotic island. You get the benefit of a beautiful place to relax and some general upkeep, but you don’t have exclusive ownership.

Performance And Security:	Service And Features:	Pricing:	Pros Of Shared Hosting:	Cons Of Shared Hosting:
Good loading times for smaller sites, up to 1,000 visitors per day. Shared hosting is generally secure, but issues can be shared between sites on the same server.	All basic services are included, but you will need to install your own software and take some responsibility for performance and security optimization.	The industry standard for shared hosting is around \$5 per month. That said, you can find good plans for less.	It’s easy to find plans for less than \$5 per month. Depending on your service provider, you can get excellent performance on medium or small business websites.	Shared plans often don’t perform well for websites with heavy traffic. For the best rates, you may have to sign up for a multi-year contract.

Who is shared hosting best for:

For a beginner, shared hosting should be the go-to option. With the right provider, you’ll have all the tools you need for getting your project going and plenty of room to scale up over time.

Virtual Private Server (VPS) Hosting

Virtual Private Servers (VPS) offer **enhanced performance** and greater customization compared to shared hosting plans. In a VPS environment, a single physical server hosts multiple isolated units, each dedicated to individual websites.

So, if shared hosting is a timeshare property, VPS hosting is like having your own apartment in a large complex. In practical terms, VPSs provide a higher degree of isolation between users, although you still share the same physical server.

Performance And Security:	Service And Features:	Pricing:	Pros Of VPS Hosting:	Cons Of VPS Hosting:
VPS hosting guarantees better page-loading speeds and less downtime. Since each site is kept separate, security threats are rarely shared.	Unmanaged VPS hosting is a lot like shared hosting. Managed VPS hosting takes care of all technical tasks.	Highly variable, but the monthly industry standard is right around \$30 per month. Managed plans cost a bit more than unmanaged plans, although they make up for it with additional features and services.	You get fully dedicated resources for your website. Depending on your host, you might be able to configure your VPS to your specific needs.	Calculating the amount of resources you need can be challenging. Configuring a VPS often requires some technical know-how.

Who VPS hosting is best for:

If you want full control over your server without spending hundreds of dollars on a dedicated plan, consider using a VPS. The high level of **customizability** also makes it an attractive option.

Dedicated Hosting

With a dedicated server, you get **exclusive access** to a single server (or sometimes more than one). That means you'll have complete control over its configuration, and the web hosting provider simply houses it for you.

Carrying on the analogy — instead of a timeshare, you get the whole place to yourself.

Performance And Security:	Service And Features:	Pricing:	Pros Of Dedicated Hosting:	Cons Of Dedicated Hosting:
Optimum speed, stability, and security for high-traffic websites. The best performance comes from plans that use SSD (solid state drive) storage.	Unmanaged dedicated hosting means it's up to you to add features. Managed dedicated hosting provides features like a unique IP address, dedicated server backups, and extra support.	The average dedicated server starts at around \$100 per month, although plans at that price aren't likely to include a fully managed hosting package.	You get a whole server to yourself. In most situations, you can configure your server to your liking.	It's a relatively expensive option.

<i>Who dedicated hosting is best for:</i>	Dedicated hosting is the go-to choice for websites that require the very best when it comes to performance and have the budget for it.
--------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------

Alternative Hosting Types

Cloud Hosting

Cloud hosting can be either very cheap or incredibly expensive, depending on your server configuration. It's the type of setup that some massive internet-based companies use to power their operations. But unless your website is called Netflix, you probably won't need this option.

It offers a high degree of **scalability**. You can customize your server as you see fit.

The payment structures for cloud hosting can be complicated. It's not well suited to users who don't have experience with **configuring a server**.

Managed WordPress Hosting

It's not a type of plan but rather a kind of service. With managed WordPress hosting, your provider takes care of a lot of the day-to-day maintenance tasks that would otherwise fall on your shoulders. Those tasks include backups, security monitoring, software updates, and more. On top of WordPress-specific plans, there are also entire hosting platforms that only work with this **Content Management System (CMS)**.

You get access to WordPress-specific perks, such as free plugin licenses and one-click installations. It's only valuable for WordPress users and limits your ability to use other platforms.

Reseller Hosting

If you run a business that revolves around building websites, such as a development or design agency, you'll probably have to deal with hosting. A lot of clients don't quite understand how hosting works and could use help getting everything set up and working. In a nutshell, you get access to an account that lets you provide hosting to your clients. Those clients pay you directly, and you're responsible for managing their accounts.

Pros Of Reseller Hosting	Cons Of Reseller Hosting
You can set up hosting accounts for third-party users and charge them directly. You're in complete control of the hosting experience.	You're usually responsible for billing clients. In most cases, you'll have to take care of maintenance and support tasks independently.

Who reseller hosting is best for:

If you run a business that helps with web hosting for clients, it can make sense to offer that service **in-house**. With reseller hosting, you can bill clients directly for hosting and take care of maintenance for them while having another company provide the infrastructure.

b Match types of the web hosting with pictures. Browse the text and find information that can help you. One picture is odd-one-out.

- a Shared hosting
- b Dedicated Hosting
- c Virtual Private Servers (VPS)

1



2



3



c Read the text again and answer the questions with **SH** (Shared Hosting), **VPS** (Virtual Private Servers), **DH** (Dedicated Hosting), **CH** (Cloud Hosting), **RH** (Reseller Hosting).

- | | | |
|---|--|-----------------------------------------------------------------------------------------------|
| 1 | | is the go-to choice for websites that require the best performance and have the budget for it |
| 2 | | only work with this Content Management System (CMS) |
| 3 | | a single physical server hosts multiple isolated units, each dedicated to individual websites |
| 4 | | You can set up hosting accounts for third-party users and charge them directly |
| 5 | | type of setup that some massive internet-based companies use to power their operations |
| 6 | | you get exclusive access to a single server |
| 7 | | a single server is shared between multiple users |

d Look at the **highlighted** words and word phrases. With a partner, work out their meaning from the context.

3 GRAMMAR comparatives and superlatives

Comparative adjectives are a form of adjectives take when comparing two (and only two) things, such as “*she is older than him*” or “*he is more serious than them.*” For most short adjectives, we simply add the suffix **-er** at the end of the word, while for longer adjectives we usually add the adverb **more** directly before the word.

Way to use comparative adjectives in a sentence:

[Noun A] + [be or another linking verb] + [comparative adjective] + <i>than</i> + [Noun B]	linking verb: seems looks
--------------------------------------------------------------------------------------------	---------------------------------

*The movie was **more boring** than the book.*

*She seems **nicer than** her sister.*

*Shared hosting is **more affordable** than dedicated hosting.*

*VPS (Virtual Private Server) hosting plans are typically **more scalable** compared to shared hosting plans.*

Irregular comparative adjectives

Not all adjectives follow the rules above. Try memorizing these irregular comparative adjectives so you always know the right word to use.

Standard form

good

bad

far

many

Comparative form

better

worse

farther or further

more

Superlative adjectives are a form adjectives take when comparing three or more things, such as “the tallest student in class” or “the most popular game.” Generally, superlatives are used to show something is in the top of its category, with no others having more of that adjective’s trait.

You can make any adjective into a superlative. For short adjectives, simply add the suffix **-est** at the end of the word. For long adjectives, add the adverb **most** before the word.

Way to use superlative adjectives in a sentence:

Noun (subject) + verb + the + superlative adjective + noun (object)

*Dedicated hosting plans are **the most reliable** option.*

*Cloud hosting plans typically **offer the most flexibility** compared to other hosting options such as shared, VPS, or dedicated hosting.*

*a Read these tips for: **How to Choose a Web Hosting Provider.***

✓	Performance	any provider you consider should have an uptime guarantee of at least 99%. Evaluate the host’s performance-related features, such as
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		caching, SSD storage, and Content Delivery Service (CDN) access.
✓	Software	When you select a web hosting provider, check their technical documentation to ensure that the service supports the software, services, and languages that you plan to use.
✓	Security	Secure Socket Layer (SSL) certificates are particularly vital for keeping your site and users safe. Adding an SSL certificate to your site can be an additional expense, but some hosting providers will include one in your plan at no extra cost.
✓	Scalability	As your online presence expands, you'll need more resources, bandwidth, and disk space in order to maintain your site for all its users. A host that offers easy upgrades to a Virtual Private Server (VPS), Managed WordPress, or Dedicated Hosting plan can make this process smoother.
✓	Technical Support	Ensuring that your host has multiple contact methods and a 24/7 support team should guarantee that someone will be available whenever you need help.
✓	Pricing	Just remember that you might not be on the same plan forever. If you want to pick a host for the long term, consider what kind of resources you might need in future and check the pricing for plans that can cover your requirements. On a similar note, make sure to look into your potential host's renewal fees, as well as the initial sign-up costs.

b In pairs, decide whether the statements below are **true/false**.

1 Your website's performance influences Search Engine Optimization (SEO), bounce and conversion rates, and how trustworthy your site appears to visitors.

2 Whether you're building a personal blog or the next big tech startup, every website relies on certain technology. _____

3 It's exception to the rule when sites are hacked, so for smaller websites, cybersecurity shouldn't be a top priority. _____

4 For protection from threats like malware and DDoS (distributed denial-of-service), it's not important to choose a host that follows up-to-date security

protocols and provides features for protecting your site, but it's better to rely on destiny. _____

5 Automatic daily backups help you bring your site back if it becomes corrupted with malicious code, or you lose your content. _____

6 Performance and uptime can make or break your website. _____

c There are a ton of web hosting services that you can choose from, but some are better than others. Take a look below for a recap of best 3 web hosting services.

Compare Web Hosting Services using next adjectives:

affordable	/ə'fɔ:.də.bəl/
scalable	/'skeɪ.lə.bəl/
reliable	/rɪ'laɪ.ə.bəl/
flexible	/'flek.sə.bəl/
secure	/sɪ'kjʊər/
high-performance	/'haɪ.pə'fɔ:.məns/
managed	/'mæn.ɪdʒ/
dedicated	/'ded.ɪ.keɪ.tɪd/
shared	/ʃeəd/
customizable	/'kʌstəmaɪzəbl/



BEST VALUE

GrowBig

SAVE 80%

5.49 €/mo.*

Discounted from 27.99 €/mo.*

Excl. VAT

Unlimited Websites

20 GB Web Space

~ 100,000 Visits Monthly

Unmetered Traffic

Free Domain

Free SSL

Daily Backup

Free CDN

Free Email

Free Email Migrator

Enhanced Security

Ecommerce Enabled

Managed WordPress

Out-of-the-box Caching

Unlimited Databases

100% renewable energy match

30-Days Money-Back

Add Collaborators



On-demand Backup Copies

30% faster PHP

Our unique ultrafast PHP implementation makes your pages load up to 30% faster, cutting the TTFB (time to first byte) and allowing the server to process more of your visits faster.

Staging



BEST VALUE

Web Hosting Deluxe

Multiple site hosting with SSL for all sites. Plus, free matching domain and free email (with terms of 12/mo. or longer).

£5.99/mo

With a 1-yr term (50% savings)

You pay £71.88 today. Renewals at £143.88.

Standard Performance

10 websites

50 GB storage

25 databases

Unmetered bandwidth

Daily backups

Free 1-click WordPress install

3 free Microsoft 365 mailboxes (£107.64/yr value) - 1st year

Free domain (£8.99/yr value)

Free, unlimited SSL for all your websites

24/7 security monitoring & DDoS



BEST VALUE

Business

Level up with more power and enhanced features

~~£14.99~~ SAVE 73%

£3.99/mo

+2 months FREE

£8.99/mo when you renew

Top Features

100 Websites

Increased Performance (Up to 5x)

200 GB NVMe Storage

Daily Backups (£25.08 value)

Free Email

Unlimited Free SSL

Unlimited Bandwidth

Free Domain (£8.99 value)

Free CDN

X Dedicated IP Address

No-Code Website Builder

Drag&Drop Website Builder

AI Website Creation

150 Designer-Crafted Templates

Google Analytics Integration

Marketing Integrations

eCommerce Features

0% Transaction Fees

20+ Payment Methods

Security

Enhanced DDoS Protection

Web Application Firewall

Cloudflare Protected Nameservers

Malware Scanner

Secure Access Manager

d WRITING. Write an email to your colleague with recommendations how to speed up his or her customer's website. Recommend using recommend using Google's PageSpeed Insights. Describe the service characterizing its strengths.

IT COSTS

4 VOCABULARY & SPEAKING

a Complete sentences with words from the box.

price	budget	commission	charge	coupon
transfer	fee	rate	cashback	

- 1 The company negotiated a competitive _____ for the new IT services, ensuring they received the best value for their investment.
- 2 The sales representative earns a _____ for each software license they sell, incentivizing them to drive sales.
- 3 There is a monthly _____ associated with the software subscription, covering maintenance and support services.
- 4 Customers can redeem a _____ code at checkout to receive a discount on their purchase of IT products.

- 5 The service provider imposes a _____ for additional features beyond the basic package.
- 6 The _____ of the new hardware includes installation and setup by certified technicians.
- 7 The organization implemented cutbacks on unnecessary software subscriptions to optimize their IT _____.
- 8 As a promotional offer, customers receive _____ rewards for referring new clients to the IT company.
- 9 The company initiated a fund _____ to pay for the renewal of their software licenses.

b We can ask about prices in different ways. Here are some of the common expressions used to ask about prices:

How much is this/that (are these/those)?

How much does this/that (these/those) cost?

Telling the Price

To answer a question about prices, we use **the dummy 'it'**. If you are saying the price at the moment, you use: **'It + is'**. If you have bought something and you want to say how much you paid for it, you can use: **'It + was'**. Let's see some examples:

It is \$2.50. (two-fifty; two dollars fifty; two dollars and fifty cents)

It was £560.00. (five hundred and sixty pounds)

What is Currency?

Each country has its own system of money. It's called **currency**. In the following, you can see some of the currencies used in English-speaking countries.

Country	Currency	Symbol	Abbreviation
USA	US dollar	\$	USD
Uk	The Great British pound	£	GBP
Canada	Canadian dollar	C\$	CAD
Australia	Australian dollar	A\$	AUD
EU countries	Euro	€	EU

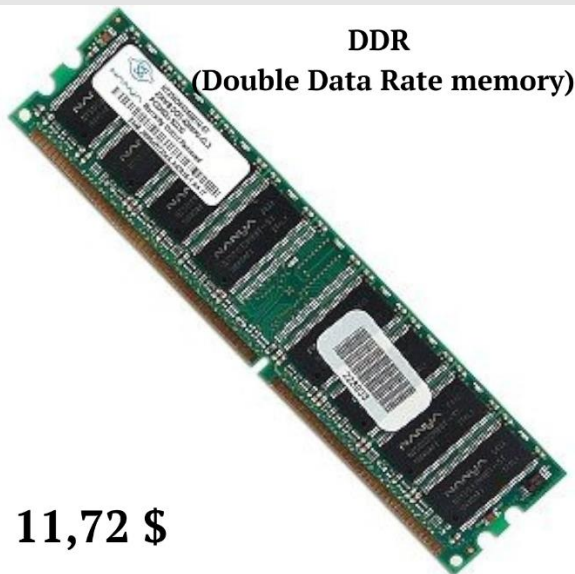
Units of Money

Dollar, Pound, Euro, etc. are all units of money. Each unit can have smaller units such as cents and pence. Let's have a look:

	Paper	Coins	Units
USD	\$1, \$2, \$5, \$10, \$20, \$50, \$100	¢1, ¢2, ¢5, ¢10, ¢25, ¢50	Dollar, Cent
Euro	€5, €10, €20, €50, €100	€0.01, €0.02, €0.05, €0.10, €0.20, €0.50, €1, €2	Euro, Euro cents

Paper	Coins	Units
Pound £5, £10, £20, £50	Penny (1 pence), 2 Pence, 5 pence, 10 pence, 20 pence, 50 pence, £1, £2	10 Pound, Pence, Penny

c Look at the pictures. In pairs, speak about prices.



Use 10 Ways to Talk About Price.



- 1 It cost a fortune. (= *it costs a lot of money*)
- 2 It cost an arm and a leg
- 3 That's a rip-off. (= *overpriced; far more expensive than it should be*)
- 4 I can't afford it. (= *I don't have enough money to buy it*)
- 5 That's a bit pricey.
- 6 That's quite reasonable. (= *it's a good price*)
- 7 It's 20% off. (= *there's a 20% discount*)
- 8 That's a good deal. (= *a good value for the amount of money*)
- 9 It was a real bargain.
- 10 It was dirt cheap. (= *extremely inexpensive*)

IT cost structure

1 SPEAKING

a Read the dialogue between CEO, CFO and CIO of IT Company.

CFO: We need to seriously consider reducing costs in our IT department. Our expenses are ballooning, and it's putting a strain on our bottom line.

CEO: I understand your concerns, but cutting costs in our IT department might not be the best approach right now. We need to ensure we're investing adequately in technology to stay competitive in the market.

CFO: But we can't ignore the fact that our IT costs are spiraling out of control. We need to trim unnecessary expenses and find more cost-effective solutions.

CIO: I agree with the CEO. While I acknowledge the need to manage costs responsibly, slashing our IT budget could have detrimental effects on our operations and hinder our ability to innovate.

CFO: Innovation doesn't have to come at the expense of fiscal responsibility. We can still invest in technology while being mindful of our expenditures. We need to find a balance.

CEO: I'm concerned that drastic cost-cutting measures could compromise the quality of our IT infrastructure and services. We can't afford to sacrifice reliability and performance for the sake of short-term savings.

CFO: We're not talking about sacrificing quality here. We're talking about being more prudent with our spending and finding efficiencies where we can.

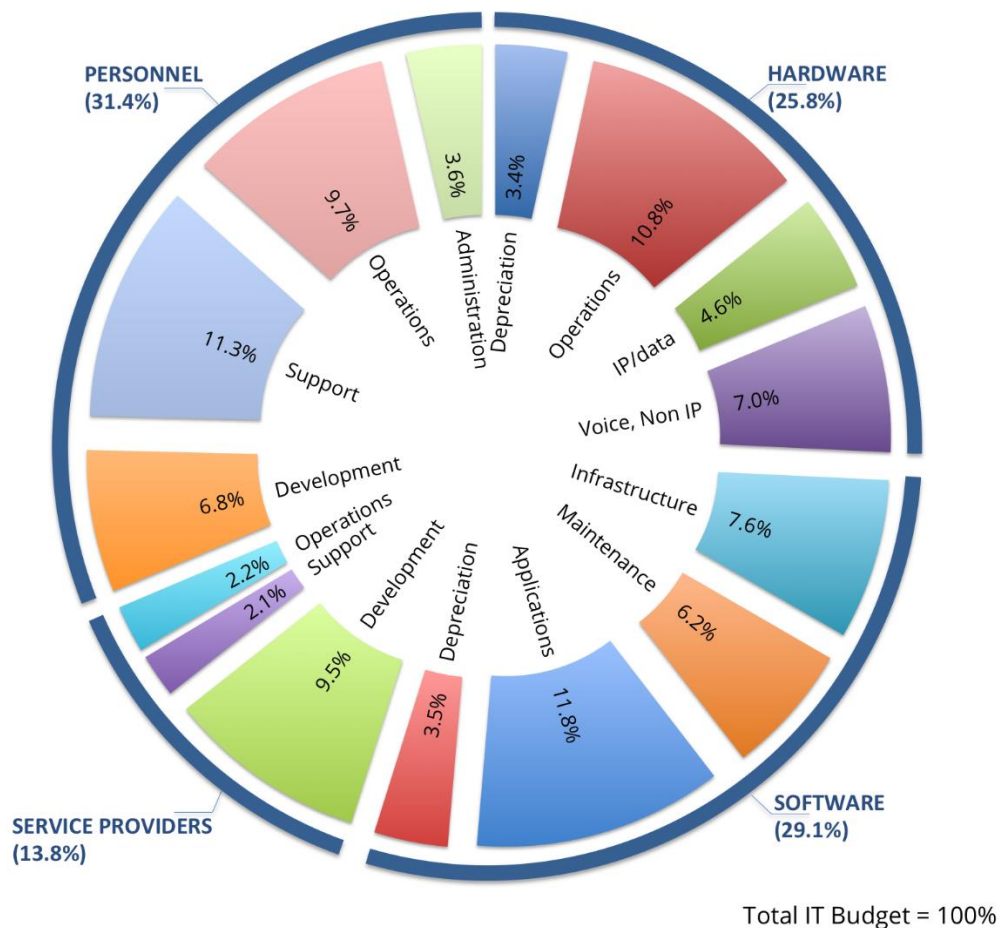
CIO: It's not just about finding efficiencies; it's about strategically investing in the right technology to drive our business forward. Cutting costs indiscriminately could hinder our ability to innovate and adapt to changing market conditions.

CFO: I hear what you're saying, but we need to prioritize financial sustainability. We can't continue to operate with unchecked expenses.

CEO: Let's take a step back and review our IT cost structure more comprehensively. We need to identify areas where we can optimize spending without compromising our long-term strategic goals.

CFO: Agreed. Let's work together to find a solution that balances cost management with our strategic priorities.

b *In pairs, act out a similar dialogue on reducing costs using the chart below.*



2 READING

a *Read the text.*

IT cost structure planning and decision-making

Effective planning for an IT cost structure should consider long-term business investments over several years, followed by the creation of line items in the budget that can be categorized and tied to specific costs.

The chief information officer ([CIO](#)) is normally primarily responsible for the strategic decisions in the IT department, including the IT cost structure, and determines which proposals fit within the IT budget. The CIO frequently collaborates with other senior managers such as the chief financial officer ([CFO](#)) and chief executive officer ([CEO](#)) to prepare and finalize the IT budget, and to make key decisions about the IT cost structure.

What are the four types of IT costs?

There are four categories that contribute to the overall IT cost structure:

- Operational costs, or the price of running IT services on a day-to-day basis.
- Staff costs, which include all expenditures associated with hiring, training and retaining an employee.
- Core costs, which represent the general operating expenses that have no direct relationship to the production or selling of a company's goods and services. These are also known as overheads.
- Costs, or money invested by a company to acquire or upgrade fixed, physical, non-consumable assets, such as buildings and equipment.

Cost analysts must be able to identify all these costs so they can understand the key variables influencing these costs and how those variables are subject to change. This information helps business leaders and decision-makers to predict IT costs and plan the IT budget accordingly. Understanding the IT cost structure also helps with capacity planning, enterprise asset management ([EAM](#)) and [project planning](#).

Fixed IT costs vs. variable IT costs

Many IT expenses are fixed, which limits the options for IT executives looking to [reduce expenditures](#). Fixed costs are generally long-term expenditures and don't change over time -- or at least don't change very quickly or to an appreciable extent.

Examples of fixed IT costs include the following:

- IT personnel salaries.
- Long-term [software licenses](#).
- Hardware components of the IT infrastructure.
- Infrastructure maintenance expenses.
- Infrastructure depreciation.
- Lease payments.

By contrast, variable IT costs include expenses that change in the near term. These variations might be due to internal factors, such as changing business volumes or usage, or due to external factors, such as price increases or the emergence of new IT products or services.

Examples of variable IT costs include:

- Per-seat software licenses.
- Costs of hiring contractors or other third parties for short-term staffing requirements.

- Incremental server capacity added.
- Incremental hardware costs.
- [Staff training](#) and awareness programs.
- Travel expenses.

Converting fixed costs to variable costs

In some cases, organizations can convert hard-to-control fixed IT costs into more controllable variable costs. One way to do so is by adopting cloud technologies.

In traditional, on-premises IT environments, many computing costs are fixed, predictable and incurred over a long period of time. These costs are known as capital expenditures or [CapEx](#).

CapEx requires large upfront cash investments and involves technology and vendor lock-in. It can be difficult to repurpose existing IT assets for new requirements, so businesses must often buy new equipment, which increases their CapEx.

Cloud computing removes many fixed IT costs by converting capital expenditures into operational expenditures ([OpEx](#)). OpEx refers to the costs of running day-to-day IT operations without the large upfront investments in hardware, software and networking. Most public cloud providers provide [pay-as-you-go](#) pricing, meaning organizations can use what cloud resources they require and only pay for the resources they actually use.

With this on-demand approach, businesses don't incur fixed, unchanging expenses on cloud-based IT resources. Rather, these expenses become variable depending on usage, which enables organizations to better control and optimize IT costs.

Another way to convert fixed IT costs into variable costs is through staffing changes. Hiring more external contractors instead of salaried employees enables organizations -- especially those under extreme cost pressures -- to convert fixed staffing costs into variable costs. Of course, shifting from full-time staff to external contractors can have a long-term negative impact, affecting an organization's ability to drive profitability and strategic advantage via its people. Companies must keep these considerations in mind before making the decision to convert staffing fixed costs to variable costs.

Changing the IT procurement model can also convert fixed costs to variable costs. It can reduce IT [total cost of ownership](#). For example, adopting [hardware-as-a-service](#) enables organizations to lease hardware as required instead of buying it outright. Similarly, the [software-as-a-service](#) procurement model minimizes the need to buy software for the long term and instead, organizations pay for a subscription as required and only *until* it is required.

What is cost management in IT?

[Cost management](#) is the ongoing effort to understand, plan and control the various costs incurred by running a business. IT cost management is the process of doing all of this for IT-related costs.

The IT cost management process includes the collection and analysis of information about IT expenses, with the aim of forecasting and monitoring costs as well as preventing overruns of the IT budget. In the long term, effective IT cost

management practices enable organizations to generate more savings and maximize returns on IT investments.

In building and trimming an IT cost structure, typical cost management initiatives include rationalizing IT assets and resources and renegotiating vendor contracts, especially around payment terms and discounts.

Organizations might also implement these IT-specific cost management initiatives to control and optimize IT costs:

- Simplify IT workflows to cut unnecessary, cost-increasing or unprofitable steps.
- Automate repetitive IT tasks, such as tasks related to [software patching](#), or helpdesk.
- Outsource low-value tasks to external contractors.
- Forecast future expenses and build them into the IT budget.
- Join a buying group that negotiates discounts with suppliers on behalf of member organizations.

b In pairs, do the quiz.

1. Who is primarily responsible for the strategic decisions in the IT department, including the IT cost structure?

- A) Chief Information Officer (CIO)
- B) Chief Executive Officer (CEO)
- C) Cost Analyst
- D) Chief Financial Officer (CFO)

2. Which category of IT costs includes all expenditures associated with hiring, training, and retaining employees?

- A) Core costs
- B) Costs
- C) Staff costs
- D) Operational costs

3. Which type of cost represents general operating expenses that have no direct relationship to the production or selling of goods and services?

- A) Core costs
- B) Staff costs
- C) Costs
- D) Operational costs

4. What is the purpose of categorizing line items in the budget tied to specific costs?

Choices

- A) To help understand the key variables influencing costs
- B) To decrease staff costs
- C) To avoid creating core costs
- D) To increase operational costs

5. Who frequently collaborates with the Chief Information Officer (CIO) to prepare and finalize the IT budget?

- A) Chief Financial Officer (CFO)
- B) Cost Analyst
- C) Chief Executive Officer (CEO)
- D) Staff Member

6. What type of assets do costs represent that are invested by a company to acquire or upgrade fixed, physical, non-consumable assets?

- A) Physical assets
- B) Software assets
- C) Intangible assets
- D) Human resources assets

7. What is one way organizations can convert fixed IT costs into variable costs?

- A) Adopting cloud technologies
- B) Increasing long-term software licenses
- C) Hiring additional IT personnel
- D) Purchasing more hardware components

8. Which of the following is an example of a fixed IT cost according to the text?

- A) IT personnel salaries
- B) Travel expenses
- C) Incremental server capacity added
- D) Per-seat software licenses

9. What is the main advantage of converting fixed IT costs to variable costs through cloud technologies?

- A) Requires large upfront cash investments
- B) Increases capital expenditures (CapEx)
- C) Reduces the need for staff training programs
- D) Provides an on-demand pricing model

10. Why are fixed IT costs generally considered long-term expenditures?

- A) Because they often involve unpredictable expenses
- B) Because they are easy to convert into operational costs
- C) Because they vary frequently
- D) Because they don't change over time or only change slowly

11. What characterizes variable IT costs according to the text?

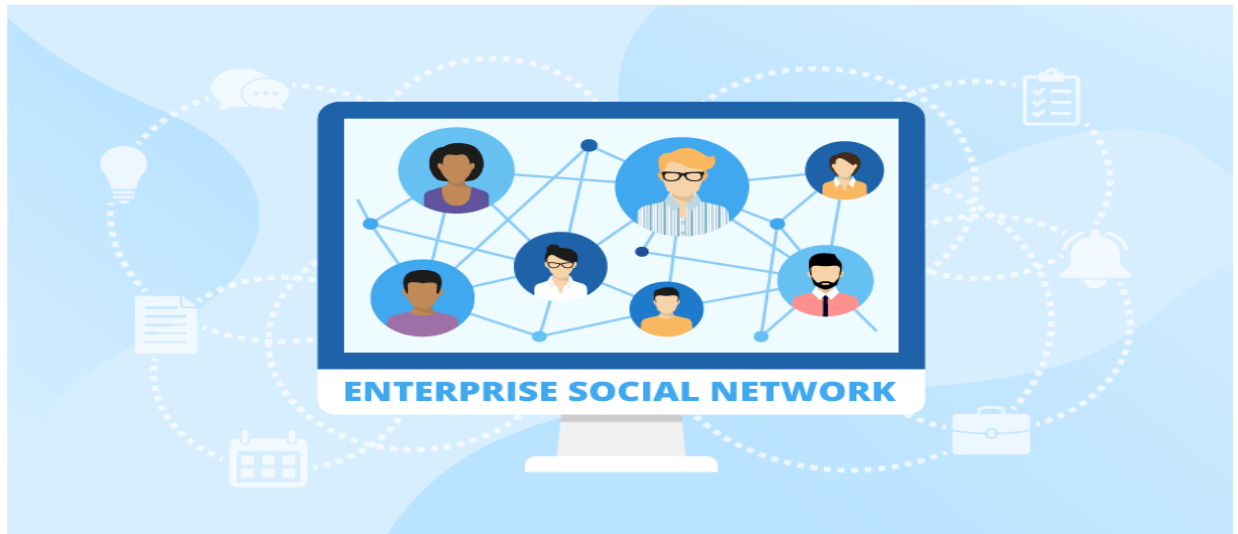
- A) They change in the near term due to internal or external factors
- B) They remain constant regardless of business volumes
- C) They are always predictable and fixed
- D) They are incurred over a long period of time

12. Which of the following is an example of a variable IT cost based on the text?

- A) Infrastructure maintenance expenses
- B) IT personnel salaries
- C) Long-term software licenses
- D) Incremental hardware costs

UNIT VI

Interactions



The main benefits of using an enterprise social network

1. Streamlined communications

ESNs can help reduce inbox clutter by replacing long and confusing email threads with public or private communication channels. While company-wide information can be shared publicly with all the employees, you can initiate direct conversations with team members through private channels and messaging from right within the ESNs. This in turn makes it easier for employees to keep track of all the conversations and ensure they are not missing out on any important information.

ESNs also make company directories more accessible since employees no longer need to hunt down email addresses of their coworkers just to communicate with them. It's possible to find colleagues and reach out to them in real-time directly with ESNs which can boost cross-team collaboration and help avoid communication issues that arise with emails.

2. Knowledge repository

Enterprise social networks work as an all-access platform where employees can find all the important company documents like project related data, training resources, guides, relevant research papers and industry news.

Integrating a cloud-based knowledge repository streamlines document management and allows team members to access the latest version of any file that is shared with them in real-time. A centralized knowledge repository also makes onboarding new employees easier and faster as you can quickly share all the relevant information with them.

3. Centralized collaboration

Putting all of your shared documents, project data, and task assignments in one single platform means your team members always know what needs to be done and by when. As a result, ESNs make collaboration easier even for distributed teams by centralizing the entire process. Whether your team is fully remote or just partly remote, you can ensure all the employees are always in loop with a dedicated ESN. Moreover, a company-wide communication network where employees can collaborate and reach out to each other in real-time also improves the employee morale. It instills a sense of belonging, especially during times like these when people already have limited face to face interactions with their colleagues.

4. A place for social and informal communication

ESNs are the perfect place for establishing informal and fun channels to build strong camaraderie among employees. You can create virtual spaces to discuss different personal interests and celebrate birthdays as well as important milestones. Encouraging team members to have informal conversations makes them feel more at home, even when they are working remotely from different locations.

5. Inclusive corporate culture

Of course, an ESN cannot make your company's corporate culture. After all, your corporate culture should be in place way before you plan to implement an ESN tool or any tool for that matter. But an ESN can help put emphasis on your

corporate culture, especially for new and remote employees who aren't in the office every day. Watching and reading conversations among other colleagues can help new employees get a clear idea about the company culture and make them feel more comfortable in speaking up and communicating more with their coworkers.

Comprehension Check

Exercise 1. Read the text to answer the following questions. Read the text again to check your answers.

1. What is one way enterprise social networks (ESNs) can help reduce communication clutter?
2. How do ESNs make company directories more accessible for employees?
3. What kind of documents and resources can be found in the knowledge repository of an ESN?
4. How does a centralized knowledge repository benefit the onboarding process for new employees?
5. How does using ESNs contribute to centralized collaboration within a team?
6. What is the impact of having a centralized platform for shared documents, project data, and task assignments on team members?
7. In what ways do ESNs improve employee morale, according to the text?
8. What role do ESNs play in fostering informal and social communication among employees?
9. Can an ESN establish a corporate culture, according to the text?
10. How does the text suggest that ESNs can help new employees feel more comfortable in a company, especially if they work remotely?

Exercise 2. Before you read the passage, talk about these questions:

- 1 What is videoconferencing?
- 2 What can videoconferencing be used?

Exercise 3. Read the email from professional an IT professional at Acme Enterprise. Then, mark the following statements as true (T) or false (F)

At present, we travel a lot to meet with our business partners. I propose that we use **videoconferencing** instead. It saves time and reduces costs. We only need a **webcam** to do basic videoconferencing. However, a **dedicated system** is even better. It allows us to do **multipoint videoconferences**. And it supports document sharing. It also has an **echo-cancellation** feature. The system comes with a camera and TV **monitor**. It also comes with a **codec**, but we need to order a **video bridge** separately. We also need to make sure we have high **bandwidth** Internet access. Still, it offers big savings. Let me know your thoughts.

Chuck Roberts

- 1 - Videoconferencing reduces traveling time and cost.
- 2 - The dedicated system comes with a video bridge.
- 3 - Videoconferencing works best with low bandwidth Internet access.

Exercise 4. Fill in the blank with the correct words and phrases from the word bank.

dedicated system

document sharing

monitor

videoconference

echo-cancellation

video bridge

- 1 My computer isn 't working No images are showing on the _____.
- 2 Let's purchase a _____. It comes with everything we need videoconferencing.
- 3 Only I can edit the report. The videoconference system does not _____.
- 4 You can't hold a multipoint videoconference without a _____.
- 5The _____ feature eliminates unwanted sound during a videoconference.

6 I want a face-to face meeting. Let's hold a

_____.

Exercise 5. Write a word that is similar in meaning to the underlined part.

1 A high amount of information that a network sends and receives helps images load quickly on the Internet.

b _ n _ _ i _ _ h

2 To set up a videoconference system, first connect the equipment that codes and reads signals. c _ d _ _

3 John attached a camera that broadcasts sound and video on the Internet.

w _ _ c _ m

4 Our offices can hold a videoconference among people in different locations.

m _ _ t _ _ o _ n _ v _ _ e _ _ _ n _ _ r _ _ _ _

Exercise 6. Match the following definitions to the words and phrases in the text:

1. Corporate culture
2. Inclusive corporate culture
3. Communication channels
4. ESN tool
5. Private channels
6. Cross-team collaboration
7. Camaraderie
8. Virtual spaces
9. Informal communication
10. Employee morale
11. Distributed teams
12. Centralized collaboration
13. Document management

14. Cloud-based
15. Knowledge repository
16. Streamlined communications
17. Working remotely
18. Enterprise Social Network (ESN)
19. Messaging
20. Company-wide information

1. A private platform within an organization that facilitates communication, collaboration, and information sharing among employees. It is designed to enhance internal communication and foster a sense of community within the enterprise.
2. Refer to the process of making communication more efficient and organized. It involves reducing unnecessary steps or complexities in communication methods to enhance clarity and effectiveness.
3. Various mediums or methods through which information is exchanged. Examples include email, messaging apps, face-to-face meetings, and other tools used for communication within an organization.
4. It encompasses data and updates that are intended for dissemination to all employees within an organization. This information is typically relevant to the entire company and is meant to keep everyone informed.
5. Specific communication avenues within a network that are restricted to a select group of individuals. These channels allow for confidential or targeted discussions among a defined set of users.
6. It involves the exchange of short written or spoken messages between individuals or groups. It can occur through various platforms, including instant messaging, chat applications, or other communication tools.
7. Centralized storage system that holds and organizes valuable information, documents, and resources. In the context of organizations, it serves as a collective source of knowledge accessible to employees.

8. It refers to the use of computing resources, services, or storage that are hosted on remote servers accessible over the internet. Cloud-based solutions offer flexibility, scalability, and accessibility from different locations.
9. Involves the systematic organization, storage, retrieval, and tracking of documents within an organization. It aims to streamline document-related processes and ensure efficient access to information.
10. It refers to the practice of bringing together collaboration tools, communication channels, and shared resources into a unified platform. This approach ensures that collaboration is coordinated and accessible from a central point.
11. Groups of individuals working on a common project or tasks from different geographical locations. Members of distributed teams may collaborate remotely using digital tools.
12. It reflects the overall satisfaction, happiness, and confidence of employees within an organization. It is influenced by factors such as working conditions, leadership, and the organizational culture.
13. It involves non-official, casual exchanges of information between individuals within an organization. It often occurs spontaneously and may not follow formal communication channels.
14. Online environments or platforms where individuals can interact, collaborate, or share information. In the context of organizations, virtual spaces may include digital forums, chat rooms, or collaborative platforms.
15. It refers to the sense of goodwill, trust, and friendship among members of a group or team. It contributes to a positive and supportive working environment.
16. One that values and promotes diversity, equity, and inclusion. It encourages an environment where all employees feel respected, supported, and have equal opportunities.

17. It encompasses the shared values, beliefs, and practices that define the working atmosphere within an organization. It influences behavior, decision-making, and the overall identity of the company.
18. A software application or platform specifically designed to facilitate enterprise social networking. It provides features and functionalities to support internal communication, collaboration, and information sharing within an organization.
19. It involves cooperation and coordination between different teams or departments within an organization. It aims to break down silos and enhance communication and synergy across diverse groups.
20. It refers to the practice of performing job responsibilities from a location outside the traditional office setting. It often involves using technology to connect with colleagues and access work-related resources from a remote location.

Exercise 7. Using the correct type of conditional sentences, complete these sentences

1. *If employees had utilized the enterprise social network for project updates, _____.*
2. *If the enterprise social network included advanced analytics features, _____.*
3. *If the company uses enterprise social networking tools for real-time collaboration, _____.*
4. *If managers provide constructive feedback on the enterprise social network, _____.*
5. *If colleagues support each other's ideas on the enterprise social network, _____.*
6. *If employees actively engage in the discussion forums on the enterprise social network, _____.*

7. *If the company had adopted a more user-friendly interface for the enterprise social network, _____.*
8. *If the company implements the latest features on the enterprise social network, _____.*
9. *When employees embrace the enterprise social network for project coordination, _____.*
10. *When managers actively participate in discussions on the enterprise social network, _____.*
11. *If the enterprise social network allowed anonymous posting, _____.*
12. *When managers had actively encouraged collaboration on the enterprise social network, _____.*
13. *If the company provided more training on using the enterprise social network, _____.*
14. *If the company uses enterprise social networking tools for real-time collaboration, _____.*
15. *When employees share important documents through the enterprise social network, _____.*
16. *If team members regularly update their project status on the enterprise social network, _____.*
17. *If colleagues had taken advantage of the networking opportunities on the enterprise social network, _____.*
18. *When team members regularly post updates on the enterprise social network, _____.*
19. *When employees had the option to create private groups on the enterprise social network, _____.*
20. *When team members had shared their achievements on the enterprise social network, _____.*

Exercise 8. Home Writing Assignment

Research the theme “Multipoint videoconferences”.

Prepare an essay or make a presentation in class revealing the main issues of the topic with a couple of specific examples.

Exercise 9. Answer the questions according to the video:

1. How have social media technologies impacted interpersonal relationships, according to the video?
1. What are some examples of social media platforms mentioned in the video?
2. How have social media tools been integrated into the workplace, as discussed in the video?
3. What are the potential benefits of using social media in the workplace, according to scholars and practitioners?
4. What concerns are raised regarding the use of social media for workplace communication?
5. How might excessive openness on social media platforms lead to negative outcomes in organizations?
6. Can you describe the findings of the field study mentioned in the video regarding engineers at a high-tech startup?
7. What communication strategies did the workers develop to manage tensions related to social media openness?
8. Besides open knowledge sharing, what other purposes are enterprise social media platforms used for, according to the video?
9. Where can viewers find more information about the work of Professor Jennifer Gibbs and her research team, as mentioned in the video?

Scan the QR code or open the link to watch the video



UNIT VII

Development



Evolution of IT Development: Website Design and Software Architecture

In the ever-evolving landscape of Information Technology (IT), the realms of website design and software development stand out as dynamic and crucial components. These areas not only shape the digital experiences of users but also determine the functionality and efficiency of the systems they interact with.

Website Design and Architecture:

Website design is the creative process of conceptualizing, planning, and arranging visual elements on a web page. It goes hand in hand with web architecture, which involves structuring and organizing the website's components to ensure optimal performance and user experience.

In contemporary web design, emphasis is placed on responsive and user-centric approaches. Responsive design ensures that websites adapt seamlessly to various devices, from desktops to smartphones. User-centric design focuses on creating interfaces that are intuitive, visually appealing, and enhance the overall user journey.

Architecturally, modern websites often follow a modular and scalable structure. Microservices architecture, for instance, breaks down the application into small, independent services, allowing for easier development, maintenance, and scalability.

Software Development:

Software development encompasses the entire process of creating software, from conception to deployment. In today's IT landscape, development methodologies such as Agile and DevOps have gained prominence for their emphasis on collaboration, adaptability, and continuous integration.

Programming languages play a pivotal role in software development, with languages like Python, Java, and JavaScript being widely used. Full-stack development has also become a common approach, where developers are proficient in both frontend and backend technologies.

The advent of cloud computing has revolutionized software deployment, enabling scalable and flexible hosting solutions. Containers and container orchestration tools like Docker and Kubernetes have further streamlined the deployment and management of software applications.

Security is a paramount concern in software development. With cyber threats becoming increasingly sophisticated, integrating robust security measures throughout the development lifecycle is imperative. Practices such as secure coding, regular audits, and penetration testing help fortify software against potential vulnerabilities.

As aspiring IT professionals, understanding the intricacies of website design and software architecture is essential. It lays the foundation for creating user-friendly, efficient, and secure digital solutions. Staying abreast of industry trends, embracing collaborative development methodologies, and mastering diverse programming languages contribute to a well-rounded skill set in the field of IT development.

In conclusion, the continuous evolution of website design and software architecture reflects the dynamic nature of IT. Embracing innovative approaches, staying informed about emerging technologies, and prioritizing user experience and security are key aspects of thriving in the ever-changing landscape of IT development.

Comprehension Check

Exercise 1. Read the text to answer the following questions. Read the text again to check your answers.

1. What are the two main components discussed in the text regarding Information Technology (IT) development?
2. What is the focus of responsive design in website development?
3. Can you explain what microservices architecture is in the context of website design?
4. What are some examples of programming languages mentioned in the text that are commonly used in software development?
5. Why is security considered a paramount concern in software development, according to the text?

Exercise 2. Fill in the blanks in the sentences with words from the text in the previous exercise

Website Design and Architecture:

Website design

Software architecture

Visual elements

Web page

Responsive design

User-centric design

Microservices architecture

Modular structure

Scalability

Software Development:

Software development

Development methodologies

Programming languages

Full-stack development

Cloud computing

Containers

Docker

Kubernetes

Deployment

Security

Secure coding

Audits

Penetration testing

1 _____ ensures that a _____ adapts seamlessly to various devices, providing a consistent experience for users on desktops, tablets, and smartphones.

2 In modern _____, the use of _____ is common, allowing developers to create, deploy, and run applications in isolated environments.

3 _____ like Agile and DevOps are crucial in ensuring efficient collaboration and continuous integration in the field of _____.

4 _____ is essential in breaking down an application into small, independent _____, facilitating easier development, maintenance, and scalability.

5 The goal of _____ in _____ is to create interfaces that are intuitive, visually appealing, and enhance the overall _____.

6 _____ involves creating a _____ that breaks down an application into small, independent services for easier development and maintenance.

7 Effective web page and _____ require a _____ that allows for scalability and easy integration of new features.

8 _____ is crucial in ensuring that a web page provides a consistent experience across various devices, from desktops to smartphones.

9 _____ is a key consideration in both _____ and _____, allowing for the efficient growth of systems.

10 In the realm of web page and _____, adopting Agile and DevOps methodologies is essential for fostering collaboration and adaptability.

Exercise 3. Provide the opposites to the following words:

Crucial, to enhance, to encompass, attractive, to avoid, globally, to entice, relevant, assured, paramount, lucrative.

Exercise 4. Match the words (1-6) with the definitions (A-F).

1 web design

2 coding

3 navigation

4 visibility

5 usability

6 content

- A choosing a website's visuals
- B how easily you can find a website on a search engine
- C a website's programming
- D how easily a user can use a website
- E moving around a website
- F everything contained in a website

Exercise 5. Rewrite the sentences in passive voice, using different tenses.

1. **Website design** - A user-centric web page _____ (design) to enhance the overall browsing experience.
2. **Software architecture** - Modular structure _____ (emphasize) for scalability and flexibility in modern software development.
3. **Visual elements** - High-quality graphics and visual elements _____ (integrate) into the web page for a visually appealing design.
4. **Responsive design** - Mobile responsiveness _____ (consider) essential for modern websites to cater to users on different devices.
5. **Microservices architecture** - In a well-designed system, microservices _____ (implement) for efficient and independent functionality.
6. **Software development** - Full-stack development _____ (become) a widely adopted approach in the industry.
7. **Programming languages** - Various programming languages _____ (use) depending on the project requirements.
8. **Cloud computing** - Resources in cloud computing _____ (access) remotely over the internet.
9. **Containers** - Docker _____ (commonly associate) with containerization in software development.

10. **Kubernetes** - Container orchestration tools like Kubernetes _____ (employ) for managing containerized applications.
11. **Deployment** - New features and updates _____ (regularly release) to enhance software functionality.
12. **Security** - Robust security measures _____ (implement) throughout the software development life cycle.
13. **Secure coding** - Best practices for secure coding _____ (follow) to prevent vulnerabilities.
14. **Audits** - Regular security audits _____ (conduct) to identify and address potential weaknesses.
15. **Penetration testing** - The system _____ (periodically test) through penetration testing for vulnerability assessment.

Exercise 6. Before you read the passage, talk about these questions.

- 1 What makes a good business website?
- 2 What kind of websites do you like to use?

Exercise 7. Read the article from a business newsletter. Then, choose the correct answers.

- 1 What does the Web Development class NOT teach?
- A making a website easy to use
 - B improving a website's visibility
 - C using code to program a website
 - D how to market a new website
- 2 What can you infer about the Web Design class?
- A Attending the class is mandatory.
 - B The first class addresses functionality.
 - C It focuses on improving a site's visual element.
 - D Its registration fee is less than the Web Development class.
- 3 What is the function of CSS?
- A It helps improve navigation.

- B It decreases a website's visibility.
- C It changes the style of a web page.
- D It expands the functionality of a website.



Spring Professional Development Courses

Website Review SOLUTIONS

Website Review Solutions now offers two spring classes. These classes focus on creating websites.

Web Development: Learn how to make a simple website. Create **coding** to build sites. Explore ways to expand **functionality**. Discuss improving **navigation** and **usability**. Learn ways to increase a website's **visibility**.

Web Design: Learn how to change a website's **appearance**. Use **CSS** to change a website's style. Compare the effect of different fonts and colors. Create attractive **content** to catch a user's attention.

E-mail Mary Shelton at mshelton@wrsolutions.com to register for classes.

Exercise 8. Home Writing Assignment

Research the theme “The possible Use of Web-Based Multimedia in the Future”.

Prepare an essay or make a presentation in class revealing the main issues of the topic with a couple of specific examples.

Exercise 9. Answer the questions according the video:

1. What are the two major components of modern web architecture discussed in the video?
2. Can you explain the front-end part of web architecture as described in the video?
3. How is the interaction between users and applications depicted in the video?
4. What is the role of the server in the web architecture explained in the video?

5. What are some examples of devices mentioned in the video that can interact with applications?
6. How does the communication between the client and server side occur in web architecture, according to the video?
7. When a user navigates to a web page, what process occurs, as described in the video?
8. What language is commonly used for building web pages, according to the video?
9. How does the browser handle the information received from the server, as explained in the video?
10. Can you provide examples of third-party applications mentioned in the video that websites may integrate with?

Scan the QR code or open the link to watch the video



UNIT VIII

IT solutions



IT infrastructure management

This IT solution involves planning, procuring, installing, and managing the IT infrastructure of a company. The primary goal of businesses that use this is to ensure that the systems crucial to the success of their operations are flexible, reliable, and secure. An IT infrastructure consists of two main components:

Hardware: This includes equipment such as desktop computers and laptops, and networks that consist of servers, routers, and other related fixtures. The company's facilities or the spaces they provide are also part of this component.

Software: This component typically consists of web servers and operating systems. It also includes software systems, such as enterprise resource planning (ERP), customer relationship management (CRM), and content management systems (CMS).

IT infrastructure may be traditional or cloud computing. Traditional infrastructure refers to the software and hardware components that are typically on site for a company or user. While cloud infrastructure consists of similar components, the end user or client can access it via the internet. This is possible through

virtualization, which makes computing resources available without installing the necessary components on-premises. As IT infrastructure comprises numerous elements, service providers often offer individual solutions, with each one focusing on a specific area, including:

Database management: Monitoring the client's database to reduce the risk of failures that may affect the business, maintaining it, and providing technical support

IT procurement: Determining, locating, and acquiring the ideal IT products or services to meet the client's needs

Network management: Administering, operating, and maintaining the client's computer network, often with the help of a network management system

Security management: Protecting a client's IT operations and digital assets through monitoring their IT infrastructure, ensuring compliance with security policies, and implementing and updating relevant technologies

Server management: Maintaining the client's servers to eliminate or minimize downtime and slowdowns and ensure optimal performance, and managing hardware and software server components

Virtualization solutions: Assisting clients to achieve various types of virtualization including application, desktop, network, server, and storage virtualization

Comprehension Check

Exercise 1. Read the text to answer the following questions. Read the text again to check your answers.

- 1 What does IT infrastructure management involve?
- 2 What are the primary goals of businesses using IT infrastructure management?
- 3 What are the two main components of IT infrastructure?
- 4 Can you provide examples of hardware components in an IT infrastructure?
- 5 What does the software component of IT infrastructure typically include?

- 6 How does traditional IT infrastructure differ from cloud computing infrastructure?
- 7 How is cloud infrastructure accessed by end users or clients?
- 8 What is virtualization, and how does it contribute to accessing cloud infrastructure?
- 9 In IT infrastructure management, what is the role of database management?
- 10 How do service providers offer individual solutions in IT infrastructure management, and can you provide examples of specific areas they focus on?

Exercise 2. Fill in the blanks with the correct words and phrases from the word bank.

icons

desktop

operating system

pointer

windows

GUI

- 1 Use the _____ to choose files and commands.
- 2 Small pictures or symbols in software are _____.
- 3 The _____ is the program that makes a computer work.
- 4 When something is on the _____ you see it onscreen.
- 5 An OS that uses small pictures to represent files is a _____.
- 6 You can minimize files and programs in different _____.

The New

CICIC OPERATING SYSTEM

Welcome to the CCC (OS). Review these key terms before starting your new system.

Icons: The CCC **graphical user interface** (GUI) uses icons. These pictograms are on the **desktop**. They represent files and software.

Pointer: Use the pointer to click on icons. This opens files or starts software. The pointer also **drags** files to different folders.

Shortcuts: Shortcuts are special icons. They are placed on the desktop, and you can click them to get to a program quickly.

Folders: Store your files in these icons.

Windows: Visual areas on a computer screen where different programs are operating.

Minimize: Hide windows without taking them off screen.

Maximize: Extend windows to the full width of the screen.

Menu: Each window has a menu. Click it to select a command from the list.

Exercise 3. Read the introduction to the operating system manual. Then, choose the correct answers.

1 What is the main idea of the passage?

- A where to locate shortcuts
- B the advantages of the CCC OS
- C how to identify and use parts of the OS
- D types of operating systems available

2 What can you infer about this operating system?

- A It comes with free software.
- B Files have to stay in one folder.
- C Menus contain multiple commands.
- D Folders do not maximize or minimize.

3 According to the passage, what does the pointer NOT do?

- A move files
- B open menus
- C start software

D minimize windows

Choose the best definition for each word.

1 Drag

A save an icon

B close a desktop

C move a file

2 Folders

A organize files

B move windows

C create shortcuts

3 Shortcut

A a type of software

B a type of icon

C a type of window

Exercise 4. Fill in the how-to sheet for the operating system.

CI I c OPERATING SYSTEM

Customer Service Call Summary Form

Customer Problem:

The shortcuts in the OS

Recommendation:

Move the pointer _____

Click on _____

Save the icons to _____

Problem Solved? Yes \ No

Exercise 5. A. Choose the correct term for each definition:

Database management

procurement

Network management

Security management
Server management
Virtualization solutions
cloud computing
systems crucial
infrastructure management
virtualization
secure
reliable
procuring
premises
facilities
component

1. The process of acquiring new hardware and software for the organization is called:
 - a. Procuring
 - b. Database management
 - c. Virtualization solutions
2. Managing and maintaining the organization's information infrastructure falls under the domain of:
 - a. Network management
 - b. Server management
 - c. Infrastructure management
3. Ensuring the confidentiality and integrity of information is a key aspect of:
 - a. Security management
 - b. Cloud computing
 - c. Systems crucial
4. Coordinating and optimizing the use of computing resources through remote servers is known as:

- a. Virtualization
 - b. Reliable systems
 - c. Component
5. The overall control and maintenance of servers within an organization are part of:
- a. Facilities
 - b. Premises
 - c. Server management

B. Put the appropriate words in the blanks in the sentences:

1. Effective _____ is essential for maintaining a secure and efficient IT environment.
2. The IT team is responsible for _____ new hardware and software for the organization.
3. _____ involves the coordination and optimization of computing resources.
4. _____ plays a crucial role in ensuring the confidentiality and integrity of sensitive data.
5. The _____ team successfully implemented virtualization solutions to optimize resource usage.

Exercise 6. Fill in the blanks with the correct form of the verb in either Present Perfect or Past Simple tense. Choose from the provided words in parentheses.

1. Our company _____ new servers for improved server management last month. (procure)
2. The IT team _____ the network to ensure the security management of sensitive data. (secure)
3. Last year, the company _____ new virtualization solutions for better efficiency in infrastructure management. (implement)

4. The IT department _____ on cloud computing services for several projects in the past. (rely)
5. The recent upgrade in security management _____ the systems more secure. (make)
6. The company _____ new software to enhance server management just a few days ago. (install)
7. Our organization _____ various virtualization solutions for years. (use)
8. The team _____ on the cloud computing platform extensively during the last project. (rely)
9. The company _____ its infrastructure management tools to include more advanced features. (upgrade)
10. The procurement of new facilities _____ the overall server management. (improve)
11. The recent changes in security management _____ our systems more reliable. (make)
12. The company _____ a new component in its virtualization strategy last month. (implement)
13. Our IT team _____ the company's premises with the latest access control technology. (secure)
14. The recent advancements in cloud computing _____ our approach to IT. (revolutionize)
15. The recent changes in infrastructure management _____ the overall performance of the systems. (improve)

Exercise 7. Home Writing Assignment

Research the theme “IT solutions”. Prepare an essay or make a presentation in class revealing the main issues of the topic with a couple of specific examples.

Exercise 8. Answer the questions according to the video:

1. What are the challenges discussed in the video that businesses face when their technology fails?
2. Why is it important for businesses to have a contract with an IT provider, according to the video?
3. What are the potential consequences of trying to fix IT issues internally, as mentioned in the video?
4. How does the video suggest businesses can handle IT issues if they don't have the budget for internal resources or expensive emergency support?
5. What benefits are highlighted for businesses that opt for a monthly IT managed service plan?
6. How does the video describe the proactive approach to IT problem-solving offered by managed IT services?
7. What role does remote monitoring play in the IT support plans discussed in the video?
8. How does the video emphasize the importance of familiarity with a business's IT environment for effective support?
9. What are the features of the help desk support mentioned in the video?
10. In what way does the video position managed IT services as a smart choice for businesses?

Scan the QR code or open the link to watch the video



Resources

- 1 **English for Information Technology 2. Pearson Education Limited**
Edinburgh Gate Harlow Essex CM20 2JE/England and Associated Companies throughout the world. www.pearsonlongman.com/Pearson Education Limited 2012
- 2 **Published by Express Publishing.** Information Technology: Textbook / Berkshire RG19 6HW/Liberty House, Greenham Business Park, Newbury, Design and Illustration © Express Publishing, 2011
- 3 **Krasnenko O. M., Kucheriava L. V., Rebenko M. Yu.** Professional English in IT: Textbook / O. Krasnenko, L. Kucheriava, M. Rebenko. – K.: НУБіП України, 2019.– 118 p.
- 4 Jon Marks. COMPUTERS AND INFORMATION TECHNOLOGY. A CIP entry for this book is available from the British Library. ISBN-10: 0 7136 7917 4/ISBN-13: 978 0 7136 7917 5/eISBN-13: 978-1-4081-0246-6/Text typeset by A & C Black. Printed in Great Britain at Caligraving Ltd, Thetford, Norfolk. Jonathan Marks 2007
- 5 <https://www.youtube.com>
- 6 https://economictimes.indiatimes.com/news/how-to/what-will-be-the-skills-required-to-survive-in-the-it-industry-in-future/articleshow/93595215.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- 7 <https://www.flexjobs.com/blog/post/transferable-skills/>
- 8 <https://ccmit.mit.edu/problem-solving/>
- 9 <https://www.tpp.co.uk/resources/blog/hard-soft-and-transferable-skills-do-you-know-the-difference/>
- 10 <https://www.codecademy.com/resources/blog/coding-projects-for-beginners/>
- 11 <https://zapier.com/blog/data-analysis-example/>
- 12 <https://www.comptia.org/career-change/why-change/it-pros-career-insights>
- 13 <https://edu.gcfglobal.org/en/computerbasics/inside-a-computer/1/>

- 14 <https://www.readingrockets.org/classroom/classroom-strategies/word-maps>
- 15 https://eu.siteground.com/web-hosting.htm?afcode=19a4b6e7fb282f8b9290ad187b82fb1d&campaign=hostingcc?ctaType=inline-link&text=SiteGround&touchpointId=aebe541d-4358-416a-898e-e43e39c796f8&preview=1&instance=15&source_uuid=7d70cd28-0c52-47c6-89b4-fa4edb0540ef
- 16 <https://www.godaddy.com/en-uk/offers/hosting>
- 17 <https://www.hostinger.co.uk/web-hosting?session=1024369bb4f009b289884efbd66b65>
- 18 <https://www.techtarget.com/searchcio/definition/IT-cost-structure>
- 19 <https://langeek.co/en/grammar/course/1551/money-and-prices>
- 20 <https://omtco.eu/references/sam/it-costs-the-costs-growth-and-financial-risk-of-software-assets/>