2026

Computer Basic Student Manual

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Picmov Solution Centre

1/1/2026

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Computer Basics and Microsoft Office

Student Manual

Chapter 1: Introduction to Computers

Learning Objectives

At the end of this chapter, students should be able to:

- Define a computer.
- Explain the characteristics of a computer.
- Identify different types of computers.
- Distinguish between hardware and software.
- Identify the major components of a computer system.
- Explain the functions of input, processing, storage, and output devices.
- Start and shut down a computer correctly.
- Apply basic computer care and safety practices.

1.1 What is a Computer?

A **computer** is an electronic device that accepts data (input), processes it according to instructions, stores it, and produces meaningful information (output).

The Information Processing Cycle

INPUT
|
▼
PROCESSING (CPU)
|
▼
STORAGE
|
▼
OUTPUT

Example

Input	Processing	Output
Student marks	Calculate average	Report card

1.2 Characteristics of a Computer

A computer has several important characteristics.

Speed

A computer performs millions or billions of calculations in a second.

Example:

A calculator may take several seconds to solve many calculations, while a computer completes them almost instantly.

Accuracy

Computers produce accurate results when correct instructions and data are provided.

Remember

Incorrect data produces incorrect information.

This is called:

GIGO – Garbage In, Garbage Out

Storage

Computers store enormous amounts of information.

Examples include:

- Documents
- Videos
- Music
- Databases
- Pictures

Diligence

Computers do not become tired or bored.

They can repeat the same task thousands of times without losing accuracy.

Versatility

One computer can perform many tasks:

- Typing documents
- Playing music
- Watching videos
- Designing posters
- Programming
- Banking
- Learning online

1.3 Types of Computers

Desktop Computer

Designed for use on a desk.

Typical uses:

- Offices
- Schools
- Cyber cafés

Advantages

- Powerful
- Easy to upgrade
- Large monitor

Laptop Computer

Portable computer with a built-in screen and battery.

Advantages:

- Portable
- Battery powered
- Wireless connectivity

Tablet

Touchscreen computer.

Commonly used for:

- Reading
- Internet browsing
- Video conferencing

Smartphone

A handheld computer capable of:

- Internet access
- Photography
- Email
- Office applications
- Online learning

Activity 1

Identify the type of computer shown by your instructor and list two advantages of each type.

1.4 Parts of a Computer System

A computer system consists of:

- Hardware
- Software
- Data
- Users (Peopleware)
- Procedures

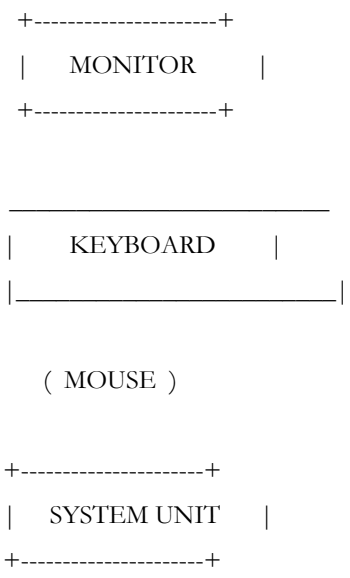
Hardware

Hardware refers to the physical parts of a computer that you can see and touch.

Examples:

- Monitor
- Keyboard
- Mouse
- CPU (System Unit)
- Printer
- Scanner

Basic Desktop Computer Layout



Software

Software is a set of instructions that tells the computer what to do.

Two main categories:

System Software

Examples:

- Windows 11
- Linux
- macOS

Functions:

- Controls hardware
- Runs applications
- Manages memory

Application Software

Examples:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Google Chrome
- Adobe Acrobat Reader

1.5 Input Devices

Input devices send data into the computer.

Examples include:

Device	Purpose
Keyboard	Typing
Mouse	Pointing
Scanner	Scanning documents
Webcam	Capturing images
Microphone	Recording sound
Barcode Reader	Reading barcodes
Fingerprint Scanner	Security

The Keyboard

The keyboard contains different groups of keys:

- Alphabet keys
- Number keys
- Function keys
- Navigation keys
- Numeric keypad

Keyboard Layout

Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12

Q W E R T Y U I O P

A S D F G H J K L

Z X C V B N M

Ctrl Alt Space Bar Alt Ctrl

The Mouse

A mouse typically has:

- Left button
- Right button
- Scroll wheel

Common actions:

- Click
- Double-click
- Right-click
- Drag and drop
- Scroll

Practice Activity

Practice the following:

- Single click
- Double click
- Right click
- Drag a file to another folder

1.6 Output Devices

Output devices present processed information to the user.

Examples:

Device	Function
Monitor	Displays information
Printer	Produces hard copies
Speakers	Produce sound
Projector	Displays presentations
Plotter	Prints engineering drawings

1.7 Storage Devices

Storage devices save information for future use.

Examples:

Device	Capacity
USB Flash Drive	16–256 GB
External Hard Drive	1–8 TB
SSD	256 GB–4 TB
Memory Card	8–512 GB
Cloud Storage	Depends on subscription

1.8 Understanding the CPU

The **Central Processing Unit (CPU)** is often called the **brain of the computer** because it carries out instructions and coordinates all computer operations.

Its main functions are:

- Processing data
- Performing calculations
- Controlling hardware
- Running software

1.9 Starting a Computer

1. Ensure all cables are connected.
2. Switch on the power source.
3. Turn on the monitor.
4. Press the power button on the system unit or laptop.
5. Wait for the operating system to load.
6. Sign in using your account.

1.10 Shutting Down Properly

1. Save your work.
2. Close all applications.
3. Select **Start**.
4. Choose **Power**.
5. Click **Shut Down**.
6. Wait until the computer powers off completely.

Never switch off the power while the computer is still running unless instructed during an emergency.

1.11 Computer Care and Safety

Good practices include:

- Keep food and drinks away from computers.
- Clean the keyboard and monitor regularly.
- Use a surge protector or UPS.
- Install antivirus software.
- Create regular backups.
- Shut down the computer correctly.
- Avoid exposing equipment to heat, dust, or moisture.

Key Terms

Term	Meaning
Computer	An electronic device that processes data into information
Hardware	Physical parts of a computer
Software	Programs that tell the computer what to do
CPU	Central Processing Unit
Input Device	Used to enter data into a computer
Output Device	Used to display or produce results
Storage Device	Saves data for later use
Operating System	Software that manages computer hardware and applications

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Chapter Summary

In this chapter, you learned:

- The definition of a computer
- The information processing cycle
- Types of computers
- Hardware and software
- Input, output, processing, and storage devices
- The CPU and its role

- Proper startup and shutdown procedures
- Basic computer care and safety

Review Questions

1. Define a computer.
2. List five characteristics of a computer.
3. Differentiate between hardware and software.
4. Name five input devices.
5. Name five output devices.
6. What is the function of the CPU?
7. Explain the information processing cycle.
8. Describe the correct steps for shutting down a computer.
9. Why is it important to back up data?
10. State three computer safety practices.

Practical Exercise

Complete the following tasks:

1. Identify the hardware components on a desktop computer.
2. Turn on the computer and sign in.
3. Open a web browser.
4. Open Microsoft Word.
5. Type your name and today's date.
6. Save the document in a folder named **Computer Basics**.
7. Close the document.
8. Shut down the computer correctly.

Computer Basics and Microsoft Office Student Manual

Chapter 2: Windows Operating System and File Management

Learning Objectives

By the end of this chapter, you should be able to:

- Define an operating system.
- Explain the functions of the Windows operating system.
- Identify the parts of the Windows desktop.
- Use the Start menu and taskbar.
- Open, switch between, and close applications.
- Create, rename, copy, move, and delete files and folders.
- Use File Explorer effectively.
- Search for files and applications.
- Customize the Windows desktop.
- Use common keyboard shortcuts.
- Apply good file management practices.

2.1 What Is an Operating System?

An **Operating System (OS)** is system software that manages the computer's hardware and software resources and provides an interface for users to interact with the computer.

Examples include:

- Microsoft Windows
- macOS
- Linux
- Android
- iOS

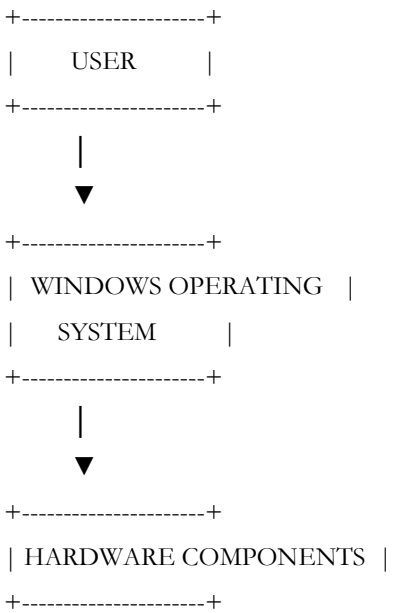
Windows is the most commonly used operating system in schools, offices, and homes.

2.2 Functions of an Operating System

The operating system performs several important functions:

- Starts the computer (booting)
- Manages files and folders
- Runs application software
- Controls hardware devices
- Manages memory
- Provides security features
- Connects to printers and networks
- Enables multitasking

Illustration: Relationship Between User and Hardware



2.3 Starting Windows

When you turn on the computer:

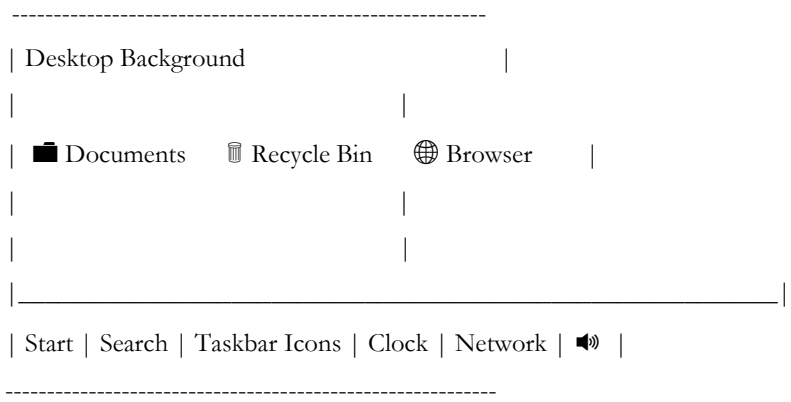
1. The computer performs a Power-On Self-Test (POST).
2. Windows begins to load.
3. The sign-in screen appears.
4. Enter your password or PIN.

5. The Windows desktop is displayed.

2.4 Understanding the Windows Desktop

The desktop is the main workspace where you interact with Windows.

Main Parts of the Desktop



Desktop Components

Desktop Background

The image or color displayed behind icons.

Icons

Small pictures representing:

- Files
- Folders
- Programs
- Shortcuts

Common icons include:

- Recycle Bin
- This PC
- Documents
- Network

Taskbar

Located at the bottom of the screen.

It contains:

- Start button
- Search

- Pinned applications
- Running applications
- Notification area
- Clock and date

Start Menu

The Start Menu provides access to:

- Installed applications
- Settings
- Power options
- User account
- Search

Practical Activity

Click the **Start** button and locate:

- Microsoft Word
- Settings
- Calculator
- Paint
- File Explorer

2.5 Opening Applications

Method 1:

- Click **Start**
- Select the application

Method 2:

- Type the application's name in the Search box
- Press **Enter**

Method 3:

- Double-click the desktop shortcut

2.6 Switching Between Applications

When multiple programs are open:

Method 1

Click the application's icon on the taskbar.

Method 2

Press:

Alt + Tab

This displays all open applications.

2.7 Closing Applications

Click the **X** button in the upper-right corner of the application window.

Keyboard shortcut:

Alt + F4

Always save your work before closing an application.

2.8 Understanding File Explorer

File Explorer helps you organize files and folders.

Open it by:

- Clicking the File Explorer icon on the taskbar
- Pressing **Windows + E**

Illustration: File Explorer Layout

```
 ------------------------------------------------------------
| File Explorer                                              |
------------------------------------------------------------
| Navigation Pane |            Contents                      |
|                 |                                          |
| Documents       | Assignment.docx                          |
| Downloads       | Budget.xlsx                              |
| Pictures        | Holiday.jpg                              |
| Music           | Presentation.pptx                        |
| Desktop         |                                          |
------------------------------------------------------------
```

2.9 Files and Folders

A **file** stores information.

Examples:

- Letter.docx
- Budget.xlsx
- Photo.jpg
- Music.mp3

A **folder** stores files and other folders.

Example:

Computer Basics

```
|
├── Assignments
├── Notes
├── Pictures
└── Projects
```

2.10 Creating a Folder

Steps:

1. Open File Explorer.
2. Open Documents.
3. Right-click an empty area.
4. Select **New**.
5. Select **Folder**.
6. Type the folder name.
7. Press **Enter**.

Example:

Computer Training

Practical Exercise

Create the following folders:

Computer Skills

```
├── Word
├── Excel
```

├── PowerPoint
├── Internet
└── Assignments

2.11 Renaming a Folder

Method 1

- Right-click the folder
- Select **Rename**
- Type the new name
- Press **Enter**

Method 2

Select the folder and press **F2**.

2.12 Copying Files

Method 1

- Right-click → Copy
- Open destination folder
- Right-click → Paste

Keyboard:

Ctrl + C

Ctrl + V

2.13 Moving Files

Keyboard:

Ctrl + X

Ctrl + V

2.14 Deleting Files

Select the file.

Press:

Delete

The file moves to the Recycle Bin.

Permanent delete:

Shift + Delete

Use with caution.

2.15 Restoring Deleted Files

1. Open Recycle Bin.
2. Right-click the file.
3. Select **Restore**.

2.16 Searching for Files

Click the Search box.

Type:

Assignment

Windows searches for:

- Files
- Programs
- Settings

2.17 File Extensions

Extension	File Type
.docx	Microsoft Word
.xlsx	Microsoft Excel
.pptx	PowerPoint
.pdf	PDF Document
.jpg	Image
.png	Image
.mp3	Audio
.mp4	Video
.zip	Compressed File

2.18 Saving Files

When saving a document:

Choose:

- Folder
- File name
- File type

Example:

Student_Report.docx

2.19 Desktop Personalization

You can change:

- Wallpaper
- Theme
- Screen resolution
- Colors
- Lock screen

Steps:

1. Right-click Desktop.
2. Select **Personalize**.
3. Choose the desired settings.

2.20 Windows Settings

Open Settings by:

- Start → Settings
- **Windows + I**

Common settings include:

- System
- Bluetooth & Devices
- Network & Internet
- Personalization
- Apps
- Accounts
- Time & Language

- Windows Update

2.21 Keyboard Shortcuts

Shortcut	Function
Ctrl + C	Copy
Ctrl + X	Cut
Ctrl + V	Paste
Ctrl + Z	Undo
Ctrl + Y	Redo
Ctrl + A	Select All
Ctrl + S	Save
Ctrl + P	Print
Alt + Tab	Switch applications
Windows + E	File Explorer
Windows + D	Show Desktop
Windows + L	Lock Computer
Windows + I	Open Settings
F2	Rename
Delete	Delete selected item
Shift + Delete	Permanently delete

2.22 Good File Management Practices

- Use meaningful file names.
- Organize files into folders.
- Avoid storing everything on the desktop.
- Back up important files regularly.
- Delete unnecessary files.
- Use cloud storage for important documents.
- Protect sensitive files with passwords where appropriate.

Chapter Summary

In this chapter, you learned:

- The purpose of the Windows operating system
- How to use the desktop, Start menu, and taskbar
- How to open and close applications
- How to create, rename, copy, move, and delete files and folders
- How to use File Explorer
- How to search for files
- How to personalize Windows
- Essential keyboard shortcuts
- Best practices for file management

Review Questions

1. What is an operating system?
2. List five functions of Windows.
3. Describe the purpose of the Start menu.
4. What is the taskbar used for?
5. Differentiate between a file and a folder.
6. Explain how to create a new folder.
7. What keyboard shortcut opens File Explorer?
8. What is the difference between **Delete** and **Shift + Delete**?
9. Name four common file extensions and their associated applications.
10. State five good file management practices.

Practical Exercise

Complete the following tasks:

1. Open File Explorer.
2. Create a folder named **ICT Course**.
3. Inside **ICT Course**, create the following subfolders:
    - Word
    - Excel
    - PowerPoint

    - Internet
4. Create a blank Microsoft Word document and save it as **My First Document.docx** in the **Word** folder.
5. Copy the document to the **Assignments** folder (create it if it does not exist).
6. Rename the copied file to **Assignment 1.docx**.
7. Delete the copied file, then restore it from the Recycle Bin.
8. Use the Search feature to locate **My First Document.docx**.
9. Change the desktop background.
10. Lock the computer using **Windows + L**, then sign back in.

Computer Basics and Microsoft Office Student Manual

Chapter 3: Internet and Email

Learning Objectives

By the end of this chapter, you should be able to:

- Define the Internet and the World Wide Web (WWW).
- Explain how the Internet works.
- Identify common web browsers and search engines.
- Browse websites safely.
- Use search engines effectively.
- Download and upload files.
- Create and manage an email account.
- Send, receive, reply to, and forward emails.
- Attach files to emails.
- Identify online threats such as phishing and malware.
- Practice responsible digital citizenship.

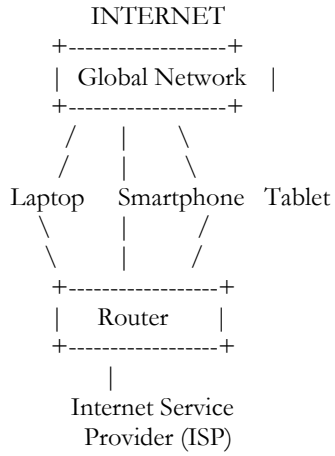
3.1 What Is the Internet?

The **Internet** is a global network of interconnected computers that communicate with one another to share information and services.

It allows people to:

- Browse websites
- Send emails
- Watch videos
- Attend online classes
- Conduct research
- Shop online
- Use cloud storage
- Communicate through social media and messaging apps

Illustration: How the Internet Connects Users



3.2 What Is the World Wide Web (WWW)?

The **World Wide Web (WWW)** is a collection of websites and web pages that are accessed through the Internet.

Key point:

- The **Internet** is the network.
- The **Web** is a service that runs on the Internet.

3.3 Common Internet Services

The Internet provides many useful services, including:

- Email
- Web browsing
- Video conferencing
- Online banking
- E-learning
- Cloud storage
- Social media
- Online shopping
- Streaming music and videos

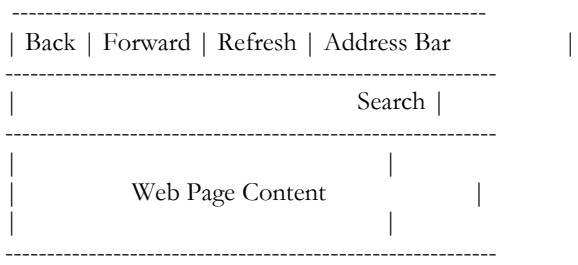
3.4 Web Browsers

A **web browser** is software used to access websites.

Examples include:

- Google Chrome
- Microsoft Edge
- Mozilla Firefox
- Safari
- Opera

Illustration: Browser Window



Parts of a Browser

- Back button
- Forward button
- Refresh button
- Address bar
- Tabs
- Bookmark bar
- Menu

3.5 Website Addresses (URLs)

Every website has a unique address called a **URL (Uniform Resource Locator)**.

Example:

https://www.example.com

A URL typically contains:

- **https://** – secure communication protocol
- **www** – web service (optional on many sites)
- **Domain name** – the site's unique name
- **Extension** – such as .com, .org, .edu, or .gov

3.6 Search Engines

A **search engine** helps users find information on the Internet.

Popular search engines include:

- Google
- Bing
- DuckDuckGo
- Yahoo

Performing a Search

Example search:

Microsoft Word beginner tutorial

Tips for Better Searches

- Use specific keywords.
- Put exact phrases in quotation marks.
- Add the year if you want recent information.
- Use trusted sources for academic research.

Activity

Search for:

1. Computer hardware
2. Keyboard shortcuts
3. Microsoft Excel formulas
4. Online computer courses

Record the first three reliable websites you find for each search.

3.7 Navigating a Website

Most websites include:

- Home page
- Navigation menu
- Search box
- Links
- Images

- Contact information
- Footer

Illustration: Website Layout

```
-------------------------------------------------------
| Logo | Home | About | Services | Contact          |
-------------------------------------------------------
| Banner Image                                        |
-------------------------------------------------------
| Main Content                                        |
|                                                     |
|                                                     |
-------------------------------------------------------
| Footer: Contact | Privacy | Copyright               |
-------------------------------------------------------
```

3.8 Downloading Files

Downloading means **copying a file from the Internet to your computer**.

Common downloads include:

- PDF documents
- Software installers
- Images
- Videos
- Music
- Presentations

Steps

1. Click the download link.
2. Choose where to save the file.
3. Wait for the download to complete.
4. Open the downloaded file from the **Downloads** folder.

3.9 Uploading Files

Uploading means **sending a file from your computer to a website or cloud service**.

Examples:

- Submitting assignments
- Uploading photos
- Attaching documents to emails
- Backing up files to cloud storage

Practical Exercise

Upload a document to your school's learning management system or another approved platform, then download it again to verify the upload.

3.10 Introduction to Email

Email (Electronic Mail) is a method of sending digital messages over the Internet.

Benefits:

- Fast
- Reliable
- Free or low cost
- Allows file attachments
- Accessible from almost anywhere

3.11 Parts of an Email Address

Example:

student@example.com

Components:

- **student** – username
- **@** – separator
- **example.com** – email domain

3.12 Creating an Email Account

General steps:

1. Visit an email provider's website.
2. Select **Create Account**.
3. Enter your personal details.
4. Choose a username.
5. Create a strong password.
6. Verify your account if required.
7. Sign in.

3.13 Email Interface

Typical email folders include:

- Inbox
- Sent
- Drafts
- Spam or Junk
- Trash or Deleted Items

Illustration: Email Window

```
-----------------------------------------------------
| Inbox | Sent | Drafts | Spam | Trash              |
-----------------------------------------------------
| New Message                                       |
-----------------------------------------------------
| Subject: Assignment                               |
|---------------------------------------------------|
| Message Body                                      |
|                                                   |
-----------------------------------------------------
| Attach File | Send                                |
-----------------------------------------------------
```

3.14 Sending an Email

1. Select **New Message** or **Compose**.
2. Enter the recipient's email address.
3. Add a subject.
4. Type your message.
5. Attach files if needed.
6. Select **Send**.

Sample Email

To: instructor@example.com

Subject: ICT Assignment Submission

Dear Instructor,

Please find attached my completed ICT assignment.

Thank you.

Kind regards,

Jane Student

3.15 Replying and Forwarding

- **Reply** sends a response to the original sender.
- **Reply All** sends the response to everyone included in the email.
- **Forward** sends the email to another recipient.

3.16 Email Attachments

Attachments may include:

- Word documents
- Excel workbooks
- PowerPoint presentations
- PDF files
- Images

Always check that the correct file is attached before sending.

3.17 Good Email Etiquette

- Use a clear subject line.
- Be polite and professional.
- Keep messages concise.
- Avoid typing in ALL CAPITAL LETTERS.
- Proofread before sending.
- Respond promptly when appropriate.

3.18 Internet Safety

Common online threats include:

- Phishing emails
- Malware
- Viruses
- Identity theft
- Fake websites
- Online scams

Recognizing Phishing

Be cautious if an email:

- Asks for passwords or banking details
- Creates a sense of urgency
- Contains suspicious links
- Has poor grammar or spelling
- Comes from an unfamiliar sender

Never share passwords through email.

3.19 Strong Passwords

A good password should:

- Be at least 12 characters long.
- Include uppercase and lowercase letters.
- Include numbers.
- Include symbols.
- Avoid personal information.
- Be unique for each account.

Example:

B0ok!River#2026

3.20 Digital Citizenship

Responsible digital citizens:

- Respect others online.
- Protect personal information.
- Cite sources when using information.
- Avoid cyberbullying.
- Verify information before sharing.
- Follow copyright laws.
- Report inappropriate content.

Chapter Summary

In this chapter, you learned:

- The difference between the Internet and the World Wide Web.
- How web browsers and search engines work.

- How to navigate websites.
- How to download and upload files.
- The basics of email communication.
- How to compose, send, reply to, and forward emails.
- Best practices for email etiquette.
- Essential online safety and cybersecurity principles.
- The importance of strong passwords and responsible digital citizenship.

Review Questions

1. Define the Internet.
2. Differentiate between the Internet and the World Wide Web.
3. What is a web browser? Give three examples.
4. What is a search engine?
5. What is the purpose of a URL?
6. Explain the difference between downloading and uploading.
7. List the main parts of an email address.
8. Describe the steps for sending an email with an attachment.
9. What are three signs of a phishing email?
10. List five characteristics of a strong password.

Practical Exercise

1. Open a web browser and search for **computer security tips**.
2. Bookmark a useful website.
3. Download a PDF document to the **Downloads** folder.
4. Create a folder named **Internet Resources** and move the downloaded PDF into it.
5. Compose an email to your instructor (or a practice account) with the subject **Chapter 3 Practical Exercise**.
6. Write a short message and attach the downloaded PDF.
7. Send the email.
8. Sign out of your email account.
9. Clear the browser history if using a shared computer.
10. Reflect on three ways you can improve your online safety.

Computer Basics and Microsoft Office Student Manual

Chapter 4: Microsoft Word (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

- Start Microsoft Word.
- Identify the parts of the Microsoft Word window.
- Create, save, open, and close documents.
- Format text and paragraphs.
- Insert tables, pictures, shapes, icons, and SmartArt.
- Apply page layout options.
- Use headers, footers, and page numbers.
- Check spelling and grammar.
- Print and export documents as PDF.
- Use keyboard shortcuts to work efficiently.

4.1 What Is Microsoft Word?

Microsoft Word is a **word processing application** used to create, edit, format, and print documents.

Common uses include:

- Letters
- Reports
- Assignments
- Books
- Resumes (CVs)
- Meeting minutes
- Newsletters
- Certificates
- Brochures

4.2 Starting Microsoft Word

Method 1

1. Click **Start**.
2. Type **Word**.
3. Select **Microsoft Word**.

Method 2

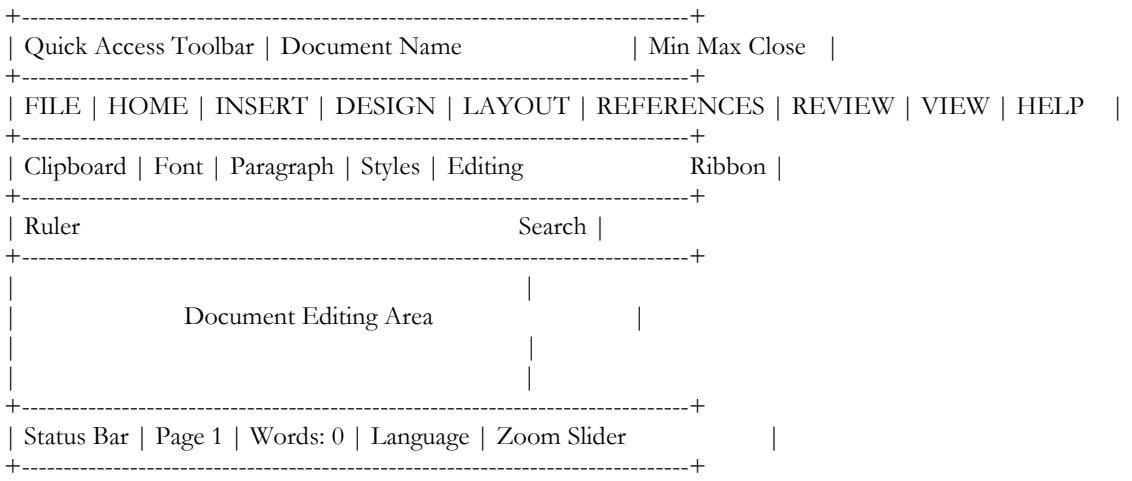
Double-click the **Microsoft Word** desktop icon.

Method 3

Open an existing **.docx** document.

4.3 The Microsoft Word Window

Illustration: Microsoft Word Interface



Parts of the Word Window

Component	Purpose
Title Bar	Displays the document name
Quick Access Toolbar	Frequently used commands
Ribbon	Contains tabs and command groups
Document Area	Where you type text
Ruler	Helps align text and objects
Status Bar	Displays page number and word count
Zoom Slider	Changes document magnification

Activity

Open Microsoft Word and identify:

- Title Bar
- Ribbon
- Status Bar
- Ruler
- Zoom Slider

4.4 Creating a New Document

1. Open Microsoft Word.
2. Select **Blank Document**.
3. Start typing.

To create another document:

File → New → Blank Document

4.5 Saving a Document

Save for the First Time

1. Select **File**.
2. Choose **Save As**.
3. Select a folder.
4. Enter a file name.
5. Select **Save**.

Example:

ICT Assignment.docx

Keyboard Shortcut

Ctrl + S

Tip: Save your work frequently to avoid losing changes.

4.6 Opening an Existing Document

1. Select **File → Open**.
2. Browse to the file location.
3. Select the document.
4. Click **Open**.

4.7 Entering and Editing Text

You can:

- Type text
- Insert new text
- Delete text using **Backspace** or **Delete**
- Move the cursor with the mouse or arrow keys

4.8 Selecting Text

To format text, you must first select it.

Methods:

- Click and drag the mouse.
- Double-click a word.
- Triple-click a paragraph.
- Press **Ctrl + A** to select the entire document.

4.9 Formatting Text

Formatting changes the appearance of text.

Font Formatting

You can change:

- Font type
- Font size
- Font color
- Highlight color

Example:

Computer Basics

COMPUTER BASICS

Computer Basics

<u>Computer Basics</u>

Common Formatting Buttons

Button	Function
B	Bold
I	Italic
U	Underline
A	Font Color
Marker	Highlight

Keyboard Shortcuts

Shortcut Function

Ctrl + B Bold

Ctrl + I Italic

Ctrl + U Underline

Practice Exercise

Type the following heading:

COMPUTER TRAINING COURSE

Format it using:

- Font: Calibri
- Size: 20
- Bold
- Dark Blue (or another color available)
- Center Alignment

4.10 Paragraph Formatting

Paragraph formatting includes:

- Alignment
- Line spacing
- Indentation
- Bullets
- Numbering

Text Alignment

Alignment	Description
Left	Text begins at left margin
Center	Text is centered
Right	Text aligns to right margin
Justify	Text aligns evenly on both margins

Keyboard Shortcuts

Shortcut	Function
Ctrl + L	Left Align
Ctrl + E	Center
Ctrl + R	Right Align
Ctrl + J	Justify

4.11 Bullets and Numbering

Bulleted List

- Computer
- Printer
- Scanner
- Keyboard
- Mouse

Numbered List

1. Open Word.
2. Create a document.
3. Save the document.
4. Print the document.

Activity

Create both a bulleted list and a numbered list in a new document.

4.12 Line and Paragraph Spacing

To adjust spacing:

1. Select the paragraph.
2. Go to **Home → Paragraph**.
3. Choose **Line and Paragraph Spacing**.

Common options:

- 1.0
- 1.15
- 1.5
- 2.0

4.13 Copy, Cut, and Paste

Command	Shortcut
Copy	Ctrl + C
Cut	Ctrl + X
Paste	Ctrl + V

Practice Exercise

1. Type a paragraph about computers.
2. Copy it.
3. Paste it below the original.
4. Cut the second paragraph and paste it at the end of the document.

4.14 Undo and Redo

Mistakes happen!

Shortcut	Function
Ctrl + Z	Undo
Ctrl + Y	Redo

4.15 Inserting Tables

Tables organize information into rows and columns.

Steps

1. Select **Insert**.
2. Choose **Table**.
3. Select the number of rows and columns.

Example

Student	Course	Marks
Jane	ICT	85
Peter	Word	90
Amina	Excel	88

Activity

Create a table with:

- 4 Columns
- 6 Rows

Enter sample student information.

4.16 Inserting Pictures

Steps:

1. Select **Insert**.
2. Choose **Pictures**.
3. Select **This Device** or **Online Pictures**.
4. Choose an image.
5. Click **Insert**.

You can then:

- Resize
- Rotate
- Crop
- Apply picture styles

4.17 Inserting Shapes

Steps:

1. **Insert**
2. **Shapes**
3. Select a shape.
4. Drag to draw it on the page.

Common shapes:

- Rectangle
- Circle
- Arrow
- Flowchart symbols
- Stars

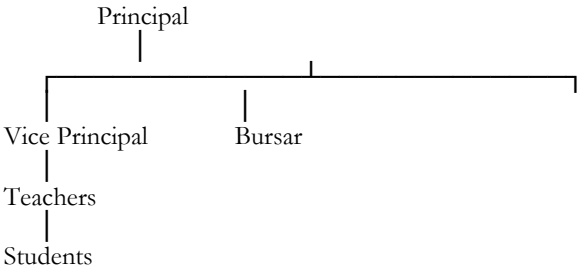
4.18 SmartArt

SmartArt creates professional diagrams.

Examples:

- Process
- Cycle
- Hierarchy
- Pyramid
- Organization Chart

Example Organization Chart



4.19 Headers and Footers

Headers appear at the top of every page.

Footers appear at the bottom.

Common uses:

- School name
- Report title
- Page numbers
- Date

4.20 Page Numbers

Steps:

1. **Insert**
2. **Page Number**
3. Select location.
4. Choose a style.

4.21 Spell Check and Grammar

Word automatically checks spelling and grammar.

Manual check:

Review → Spelling & Grammar

Shortcut:

F7

4.22 Find and Replace

Find:

Ctrl + F

Replace:

Ctrl + H

Useful when updating repeated words throughout a document.

4.23 Printing Documents

1. Select **File → Print**.
2. Choose a printer.
3. Set the number of copies.
4. Select page range if needed.
5. Click **Print**.

Always preview the document before printing.

4.24 Saving as PDF

Steps:

1. **File**
2. **Save As**
3. Choose a folder.
4. Select **PDF** as the file type.
5. Click **Save**.

4.25 Useful Keyboard Shortcuts

Shortcut	Function
Ctrl + N	New Document
Ctrl + O	Open
Ctrl + S	Save
Ctrl + P	Print
Ctrl + A	Select All
Ctrl + C	Copy
Ctrl + X	Cut
Ctrl + V	Paste
Ctrl + Z	Undo

Ctrl + Y	Redo
Ctrl + B	Bold
Ctrl + I	Italic
Ctrl + U	Underline
Ctrl + F	Find
Ctrl + H	Replace
F7	Spell Check

Chapter Summary

In this chapter, you learned:

- The purpose of Microsoft Word
- How to create, open, and save documents
- The parts of the Word interface
- How to format text and paragraphs
- How to insert tables, pictures, shapes, and SmartArt
- How to use headers, footers, and page numbers
- How to check spelling and grammar
- How to print and save documents as PDF
- Essential keyboard shortcuts for efficient document creation

---

Review Questions

1. What is Microsoft Word used for?
2. Name six parts of the Microsoft Word window.
3. Explain the difference between **Save** and **Save As**.
4. What keyboard shortcut selects the entire document?
5. List four text formatting options.
6. Differentiate between **Copy** and **Cut**.
7. How do you insert a table?
8. What is the purpose of SmartArt?
9. How do you perform a spelling check?
10. Explain how to save a document as a PDF.

Practical Exercise

Create a **two-page report** titled **"The Importance of Computer Literacy"** and complete the following tasks:

1. Create a new Word document.
2. Add a title using **Heading 1** style.
3. Insert your name, class, and date.
4. Write at least **400 words** on the topic.
5. Format the report with:
    - Font: Calibri, Size 12
    - 1.5 line spacing

    - Justified alignment
6. Insert a table showing three advantages and three challenges of computer literacy.
7. Add one relevant picture with a caption.
8. Insert page numbers in the footer.
9. Run **Spelling & Grammar** and correct any errors.
10. Save the document as **Computer_Literacy_Report.docx** and export it as **Computer_Literacy_Report.pdf**.

Mini Project

Design a professional **one-page school newsletter** that includes:

- A title and subtitle
- A school logo or placeholder image
- Two columns of text
- A table of upcoming events
- A SmartArt graphic
- A footer with page number and date

This project will reinforce the skills learned in this chapter and prepare you for creating polished, professional documents.

Computer Basics and Microsoft Office Student Manual

Chapter 5: Microsoft Excel (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

- Understand the purpose of Microsoft Excel.
- Identify the parts of the Excel window.
- Create, save, and open workbooks.
- Enter and edit data.
- Format cells and worksheets.
- Use formulas and functions.
- Create charts and graphs.
- Sort and filter data.
- Print worksheets professionally.
- Apply basic data analysis techniques.

5.1 What is Microsoft Excel?

Microsoft Excel is a spreadsheet application used to organize, calculate, analyze, and visualize data.

Excel is commonly used for:

- Budgeting
- Payroll
- Inventory management
- Student records
- Financial analysis
- Sales reports
- Data analysis
- Charts and graphs

5.2 Starting Microsoft Excel

Method 1

1. Click **Start**.
2. Type **Excel**.
3. Select **Microsoft Excel**.

Method 2

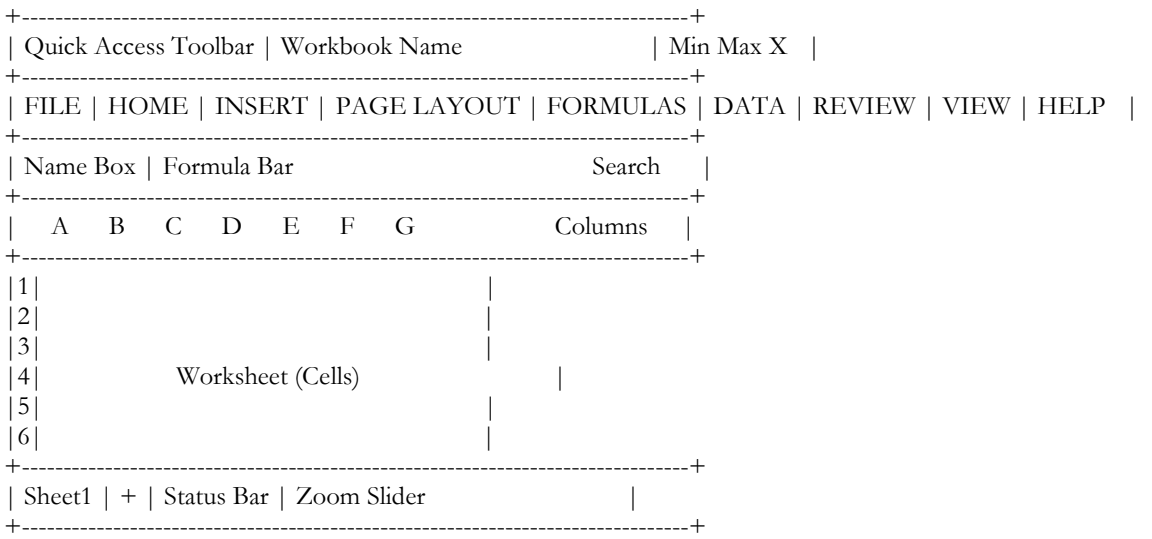
Double-click the Microsoft Excel icon.

Method 3

Open an existing **.xlsx** file.

5.3 Understanding the Excel Window

Illustration: Microsoft Excel Interface



Parts of the Excel Window

Part	Purpose
Title Bar	Displays workbook name
Ribbon	Contains commands
Formula Bar	Displays formulas and cell contents
Name Box	Shows selected cell address
Worksheet	Area where data is entered
Rows	Horizontal lines
Columns	Vertical lines

Cells	Intersection of rows and columns
Sheet Tabs	Switch between worksheets
Status Bar	Displays worksheet information

5.4 Workbook, Worksheet, Row, Column, and Cell

Workbook

A workbook is an Excel file.

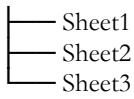
Example:

Student_Records.xlsx

Worksheet

A workbook contains one or more worksheets.

Workbook



Rows

Rows run horizontally.

They are numbered:

1
2
3
4

Columns

Columns run vertically.

They are labeled:

A
B
C
D
E

Cell

A cell is where a row and a column intersect.

Examples:

A1
B4
C10
D25

Activity

Identify the following cells:

- A1
- B7
- D10
- F15
- H20

5.5 Entering Data

Excel accepts different types of data.

Text

John
Computer
January

Numbers

250
35
1500

Dates

01/01/2026
15-Mar-2026

Currency

KSh 15,000
$250

Practice Exercise

Create the following table.

Student	Subject	Marks
Alice	ICT	85
Brian	Word	78
Carol	Excel	92
David	PowerPoint	88

5.6 Editing Data

To edit data:

- Double-click the cell.
- Press **F2**.
- Or edit in the Formula Bar.

5.7 Selecting Cells

Examples:

Single cell

A1

Range

A1:C10

Entire row

Click the row number.

Entire column

Click the column letter.

Entire worksheet

Click the Select All button.

5.8 Formatting Cells

You can format:

- Font
- Font size
- Font color
- Background color
- Borders
- Number format
- Alignment

Number Formats

Format	Example
General	100
Number	1,250
Currency	KSh 3,500
Percentage	75%
Date	07-Jul-2026
Time	08:30 AM

5.9 Basic Formulas

Every formula begins with:

=

Example

=5+10

Result:

15

Cell Reference Formula

Suppose:

A1 = 20

A2 = 15

Formula

=A1+A2

Answer

35

5.10 Arithmetic Operators

Operator	Meaning
+	Addition
-	Subtraction
*	Multiplication
/	Division
^	Power

Example

=(A1+B1)/2

5.11 Common Excel Functions

Functions simplify calculations.

SUM

Adds numbers.

Example

=SUM(B2:B10)

AVERAGE

Calculates the average.

=AVERAGE(B2:B10)

MAX

Largest value.

=MAX(B2:B10)

MIN

Smallest value.

=MIN(B2:B10)

COUNT

Counts numeric cells.

=COUNT(B2:B10)

COUNTA

Counts non-empty cells.

=COUNTA(B2:B10)

Activity

Using five student marks:

Calculate

- Total
- Average
- Highest mark
- Lowest mark

5.12 IF Function

The IF function performs logical tests.

Example

=IF(B2>=50,"PASS","FAIL")

Result

PASS

or

FAIL

Practice Exercise

Create this table.

Student	Marks	Result
Alice	75	PASS
Brian	40	FAIL
Carol	90	PASS

Use the IF function to calculate the result.

5.13 AutoFill

AutoFill automatically copies:

- Numbers
- Dates
- Days
- Months
- Formulas

Example

Monday

↓

Tuesday

↓

Wednesday

5.14 Sorting Data

Sorting arranges information.

Types:

Ascending

A → Z

1 → 100

Descending

Z → A

100 → 1

5.15 Filtering Data

Filtering displays only selected records.

Example

Display only students who scored above 70%.

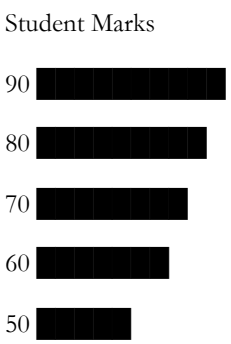
5.16 Creating Charts

Charts present data visually.

Common chart types

- Column Chart
- Bar Chart
- Line Chart
- Pie Chart
- Area Chart

Illustration



Steps to Create a Chart

1. Select data.
2. Click **Insert**.
3. Choose **Charts**.
4. Select chart type.
5. Add chart title.

Practice Exercise

Create a column chart showing student marks.

5.17 Conditional Formatting

Conditional Formatting highlights important data.

Examples:

- Marks above 80 → Green
- Marks below 50 → Red

Steps:

1. Select cells.
2. Home
3. Conditional Formatting
4. Choose a rule.

5.18 Freeze Panes

Freeze Panes keeps headings visible while scrolling.

Steps:

View

↓

Freeze Panes

5.19 Printing Worksheets

Before printing:

- Check margins
- Orientation
- Paper size
- Print preview

Options:

Portrait

Landscape

5.20 Saving as PDF

File

↓

Save As

↓

PDF

5.21 Keyboard Shortcuts

Shortcut	Function
Ctrl + N	New workbook
Ctrl + O	Open
Ctrl + S	Save
Ctrl + P	Print
Ctrl + C	Copy
Ctrl + X	Cut
Ctrl + V	Paste
Ctrl + Z	Undo
Ctrl + Y	Redo
F2	Edit Cell
F4	Repeat Action
Ctrl + Arrow	Jump to data
Ctrl + Home	Cell A1
Ctrl + End	Last used cell

Chapter Summary

In this chapter you learned:

- Excel interface
- Workbooks and worksheets
- Rows, columns, and cells
- Entering and editing data
- Formatting worksheets
- Basic formulas
- Excel functions
- Charts
- Sorting
- Filtering
- Conditional formatting
- Printing
- Saving as PDF

Review Questions

1. What is Microsoft Excel?
2. Define workbook and worksheet.
3. What is a cell reference?
4. Name five Excel functions.
5. What symbol begins every formula?
6. Explain the purpose of the IF function.
7. What is AutoFill?
8. Differentiate between sorting and filtering.
9. Name four chart types.
10. Explain conditional formatting.

Practical Exercise

Create a workbook named **Student_Marks.xlsx** containing two worksheets:

Worksheet 1: Student Results

Student	CAT	Exam	Total	Average	Grade
Alice	25	65			
Brian	18	52			
Carol	30	60			
David	20	70			
Esther	28	67			

Tasks:

1. Calculate the **Total** (CAT + Exam).
2. Calculate the **Average**.
3. Use an **IF** formula to assign grades:
    - 80–100 = A
    - 70–79 = B
    - 60–69 = C
    - 50–59 = D
    - Below 50 = F
4. Format the worksheet with borders and currency/number formats where appropriate.
5. Apply **Conditional Formatting** to highlight grades below 50.
6. Sort the table by **Average** in descending order.
7. Create a **Column Chart** showing each student's total marks.

Worksheet 2: Monthly Expenses

Create a simple budget with categories such as Rent, Food, Transport, Utilities, and Savings. Use the **SUM** function to calculate the total monthly expenditure and create a **Pie Chart** to show the percentage spent in each category.

Save the workbook as **Student_Marks.xlsx** and export it as **Student_Marks.pdf**.

Mini Project

Build a **Student Performance Dashboard** with:

- A title and school name
- Student marks table
- Automatic totals, averages, and grades
- Conditional formatting for pass/fail
- A column chart and a pie chart

- A summary section showing:
    - Highest mark
    - Lowest mark
    - Class average
    - Number of students who passed

This project combines the skills learned in this chapter and prepares you for real-world spreadsheet tasks.

Computer Basics and Microsoft Office Student Manual

Chapter 6: Microsoft PowerPoint (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

- Explain the purpose of Microsoft PowerPoint.
- Identify the parts of the PowerPoint interface.
- Create and save presentations.
- Insert and format slides.
- Apply themes and layouts.
- Insert text, images, tables, charts, SmartArt, audio, and video.
- Add animations and transitions.
- Use Slide Master.
- Present slides using Presenter View.
- Print presentation handouts.
- Deliver an effective presentation.

6.1 What is Microsoft PowerPoint?

Microsoft PowerPoint is presentation software used to create electronic slide presentations for meetings, teaching, seminars, conferences, and training sessions.

Common uses include:

- Classroom lessons
- Business meetings
- Project proposals
- Training workshops
- Sales presentations
- Research presentations
- Church sermons
- Conference talks

6.2 Starting Microsoft PowerPoint

Method 1

1. Click **Start**.
2. Type **PowerPoint**.
3. Select **Microsoft PowerPoint**.

Method 2

Double-click the PowerPoint desktop icon.

Method 3

Open an existing **.pptx** presentation.

6.3 Understanding the PowerPoint Window

Illustration: Microsoft PowerPoint Interface

```
+-------------------------------------------------------------------------------+
| Quick Access Toolbar | Presentation Name                  | Min Max Close  |
+-------------------------------------------------------------------------------+
| FILE | HOME | INSERT | DESIGN | TRANSITIONS | ANIMATIONS | SLIDE SHOW | VIEW |
+-------------------------------------------------------------------------------+
| Ribbon: Clipboard | Slides | Font | Paragraph | Drawing | Editing            |
+-------------------------------------------------------------------------------+
| Slides Pane |              Slide Workspace                      |
|             |                                                   |
| Slide 1     |          Title Placeholder                        |
| Slide 2     |          Content Placeholder                      |
| Slide 3     |                                                   |
+-------------------------------------------------------------------------------+
| Notes Pane                                                | Zoom Slider |
+-------------------------------------------------------------------------------+
```

Parts of the PowerPoint Window

Part	Purpose
Title Bar	Displays the presentation name
Quick Access Toolbar	Frequently used commands
Ribbon	Contains tabs and tools
Slides Pane	Displays slide thumbnails
Slide Workspace	Area for creating slides
Notes Pane	Add speaker notes
Status Bar	Presentation information
Zoom Slider	Zoom in and out

Activity

Open PowerPoint and identify:

- Ribbon
- Slides Pane
- Notes Pane
- Status Bar
- Zoom Slider

6.4 Creating a New Presentation

1. Open PowerPoint.
2. Select **Blank Presentation**.
3. A title slide appears.

6.5 Saving a Presentation

Save for the First Time

1. Select **File → Save As**.
2. Choose a folder.
3. Type the presentation name.
4. Select **Save**.

Example:

ICT Presentation.pptx

Shortcut

Ctrl + S

6.6 Understanding Slides

A presentation consists of individual **slides**.

Example:

Presentation

├── Slide 1 – Title
├── Slide 2 – Introduction
├── Slide 3 – Objectives
└── Slide 4 – Discussion

├── Slide 5 – Summary
└── Slide 6 – Questions

6.7 Adding New Slides

Method 1

Home → New Slide

Shortcut

Ctrl + M

Activity

Create a presentation containing six slides.

6.8 Slide Layouts

PowerPoint provides different layouts.

Examples:

- Title Slide
- Title and Content
- Two Content
- Comparison
- Blank
- Picture with Caption

Choose a layout that best fits your content.

6.9 Themes

A **theme** is a professionally designed set of colors, fonts, and effects.

To apply a theme:

1. Select **Design**.
2. Choose a theme.
3. Apply it to the presentation.

Benefits:

- Consistent appearance
- Professional design
- Saves time

6.10 Formatting Text

You can change:

- Font
- Font size
- Font color
- Bold
- Italic
- Underline
- Alignment
- Bullets

Best Practices for Slide Text

- Use large fonts (minimum 24 pt for body text).
- Use short bullet points.
- Avoid long paragraphs.
- Maintain high contrast between text and background.
- Limit each slide to one main idea.

6.11 Inserting Pictures

Steps:

1. Select **Insert**.
2. Choose **Pictures**.
3. Select **This Device** or **Online Pictures**.
4. Choose an image.
5. Click **Insert**.

You can:

- Resize
- Crop
- Rotate
- Add borders
- Apply picture styles

6.12 Inserting Shapes

Steps:

1. Select **Insert**.
2. Choose **Shapes**.
3. Select a shape.
4. Draw it on the slide.

Common shapes include:

- Rectangle
- Oval
- Arrow
- Callout
- Flowchart symbols

6.13 SmartArt

SmartArt creates visual diagrams.

Examples:

- Process
- Cycle
- Hierarchy
- Relationship
- Pyramid

Example: Process SmartArt

Start
↓
Plan
↓
Develop
↓
Test
↓
Complete

6.14 Inserting Tables

Tables organize information.

Example:

Item	Quantity	Cost
Laptop	5	250,000
Mouse	10	15,000
Printer	2	40,000

6.15 Inserting Charts

Charts present information visually.

Common chart types:

- Column
- Bar
- Pie
- Line
- Area

Example:

Sales

Jan ■■■■■■

Feb ■■■■■■■■

Mar ■■■■■■■■■■

6.16 Inserting Audio

PowerPoint allows you to insert:

- Narration
- Music
- Sound effects

Steps:

1. Insert → Audio.
2. Select the audio file.
3. Choose playback options.

6.17 Inserting Video

You can insert:

- Videos stored on your computer
- Online videos (if supported)

Useful for demonstrations and tutorials.

6.18 Slide Transitions

A **transition** is the visual effect that occurs when moving from one slide to another.

Examples:

- Fade
- Push
- Wipe
- Split
- Morph

To apply:

1. Select a slide.
2. Click **Transitions**.
3. Choose an effect.
4. Set the duration if desired.

Use transitions sparingly to maintain a professional appearance.

6.19 Animations

Animations affect objects on a slide.

Examples:

- Appear
- Fade
- Fly In
- Zoom

Animations can emphasize key points, but avoid excessive use.

6.20 Slide Show

Start the presentation:

- **Slide Show → From Beginning**
- Shortcut: **F5**

Start from the current slide:

- Shortcut: **Shift + F5**

Navigate:

- Next slide: Right Arrow or Spacebar
- Previous slide: Left Arrow

6.21 Presenter View

Presenter View provides:

- Current slide
- Next slide preview
- Speaker notes
- Timer
- Clock

This helps presenters stay organized without showing notes to the audience.

6.22 Printing Presentations

PowerPoint allows you to print:

- Full-page slides
- Notes pages
- Outline view
- Handouts (multiple slides per page)

Handouts are useful for students and meeting participants.

6.23 Saving as PDF

To share a presentation with people who may not have PowerPoint:

1. Select **File → Save As**.
2. Choose **PDF** as the file type.
3. Click **Save**.

6.24 Keyboard Shortcuts

Shortcut	Function
Ctrl + N	New presentation
Ctrl + O	Open
Ctrl + S	Save
Ctrl + M	New slide
Ctrl + P	Print
Ctrl + C	Copy
Ctrl + X	Cut
Ctrl + V	Paste
Ctrl + Z	Undo
Ctrl + Y	Redo
F5	Start slide show
Shift + F5	Start from current slide
Esc	End slide show
B	Black screen during presentation
W	White screen during presentation

Tips for Effective Presentations

- Keep slides simple and uncluttered.
- Use consistent fonts and colors.
- Limit text to key points.
- Use visuals to support your message.
- Avoid distracting animations.
- Practice before presenting.
- Maintain eye contact with your audience.
- Speak clearly and confidently.
- Use Presenter View when possible.

Chapter Summary

In this chapter, you learned:

- The purpose of Microsoft PowerPoint
- The parts of the PowerPoint interface
- How to create, save, and organize presentations
- How to apply themes and layouts
- How to insert text, pictures, tables, charts, SmartArt, audio, and video
- How to use transitions and animations
- How to present using Slide Show and Presenter View
- How to print handouts and save presentations as PDF

Review Questions

1. What is Microsoft PowerPoint used for?
2. Name six parts of the PowerPoint window.
3. What is the purpose of a slide layout?
4. Explain the difference between a theme and a transition.
5. What is SmartArt used for?
6. How do you add a new slide?
7. What is the purpose of Presenter View?
8. Name three chart types that can be inserted into a presentation.
9. What is the shortcut to start a slide show from the beginning?
10. List five tips for delivering an effective presentation.

Practical Exercise

Create a presentation titled **"Introduction to Computer Systems"** with **8 slides**:

1. **Title Slide** – Presentation title, your name, and date.
2. **Objectives** – Learning objectives.
3. **What is a Computer?** – Definition and key characteristics.
4. **Types of Computers** – Desktop, laptop, tablet, smartphone (include images or icons).
5. **Computer Hardware** – Label input, output, storage, and processing devices.
6. **Computer Software** – Explain system software and application software.
7. **Summary** – Key points from the presentation.
8. **Questions** – A closing slide inviting audience questions.

Apply the following formatting:

- Use a professional theme.
- Insert at least **three images**.
- Add one **SmartArt** diagram.
- Insert one **table** and one **chart**.
- Apply **Fade** transitions to all slides.
- Add a simple **Appear** animation to bullet points.

- Save the presentation as **Introduction_to_Computer_Systems.pptx** and export it as **Introduction_to_Computer_Systems.pdf**.

Mini Project

Prepare a **10-slide presentation** on **"Digital Skills for the Modern Workplace"**. Include:

- A title slide
- Agenda
- Five content slides with images and icons
- One chart illustrating digital technology use
- One SmartArt process diagram
- A summary slide
- A question-and-answer slide

Deliver the presentation to your classmates or instructor, using **Presenter View** if available. Focus on clear speaking, good pacing, and effective use of visuals.

Computer Basics and Microsoft Office Student Manual

Chapter 7: Microsoft Outlook (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

- Explain the purpose of Microsoft Outlook.
- Identify the parts of the Outlook interface.
- Create and manage email accounts.
- Send, receive, reply to, and forward emails.
- Organize emails using folders and categories.
- Manage contacts and contact groups.
- Use the Outlook Calendar.
- Schedule meetings and appointments.
- Create and manage tasks and reminders.
- Apply email etiquette and security best practices.

7.1 What is Microsoft Outlook?

Microsoft Outlook is an email and personal information management application included in Microsoft Office.

It helps users manage:

- Email
- Calendar
- Contacts
- Tasks
- Notes
- Meetings
- Appointments

Outlook is widely used in businesses, schools, government offices, and organizations.

7.2 Starting Microsoft Outlook

Method 1

1. Click **Start**.
2. Type **Outlook**.
3. Select **Microsoft Outlook**.

Method 2

Double-click the Outlook desktop icon.

7.3 The Microsoft Outlook Window

Illustration: Outlook Interface

```
+-------------------------------------------------------------------------+
| Quick Access Toolbar | Microsoft Outlook                | Min Max Close  |
+-------------------------------------------------------------------------+
| FILE | HOME | SEND/RECEIVE | FOLDER | VIEW | HELP                      |
+-------------------------------------------------------------------------+
| Navigation Pane | Inbox | Sent | Drafts | Calendar | Contacts | Tasks     |
+-------------------------------------------------------------------------+
| Folder List     | Email List              | Reading Pane            |
|-----------------|-------------------------|-------------------------|
| Inbox           | Subject                 | Email Content           |
| Sent Items      | From                    |                         |
| Drafts          | Date                    |                         |
| Deleted Items   |                         |                         |
+-------------------------------------------------------------------------+
| Status Bar                                        | Zoom Slider   |
+-------------------------------------------------------------------------+
```

Parts of the Outlook Window

Component	Function
Ribbon	Contains Outlook commands
Navigation Pane	Switch between Mail, Calendar, Contacts, and Tasks
Folder List	Displays mail folders
Message List	Shows received emails
Reading Pane	Displays selected email
Status Bar	Shows Outlook status

Activity

Open Outlook and identify:

- Inbox
- Sent Items
- Drafts
- Reading Pane
- Calendar
- Contacts

7.4 Configuring an Email Account

When Outlook starts for the first time:

1. Enter your email address.
2. Enter your password.
3. Click **Connect**.
4. Outlook configures the account automatically.
5. Select **Finish**.

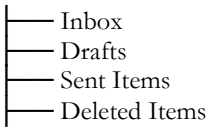
7.5 Email Folders

Common folders include:

Folder	Purpose
Inbox	Received emails
Sent Items	Emails you have sent
Drafts	Unfinished emails
Deleted Items	Deleted emails
Junk Email	Suspected spam

Illustration

Mailbox



7.6 Composing a New Email

Steps:

1. Click **New Email**.
2. Enter the recipient's email address.
3. Add a subject.
4. Type your message.
5. Attach files if necessary.
6. Click **Send**.

Example Email

To: training@school.edu

Subject: ICT Practical Assignment

Dear Instructor,

Please find attached my completed Microsoft Word practical assignment for your review.

Thank you.

Kind regards,

John Doe

7.7 Replying and Forwarding Emails

Reply

Responds only to the original sender.

Reply All

Responds to all recipients.

Forward

Sends the message to another person.

Activity

Practice:

- Reply to an email.
- Reply All.
- Forward an email to another address.

7.8 Attaching Files

To attach a file:

1. Click **Attach File**.
2. Browse to the document.
3. Select the file.
4. Click **Insert**.

Common attachments:

- Word documents
- Excel files
- PowerPoint presentations
- PDF files
- Images

7.9 Organizing Emails

Create folders to organize messages.

Example:

Inbox

```
├── Students
├── Finance
├── Human Resource
├── Meetings
└── Personal
```

Move emails into the appropriate folder for easier retrieval.

7.10 Searching for Emails

Use the **Search** box to locate messages by:

- Sender
- Subject
- Keywords
- Date
- Attachment

Example search:

Budget Report

7.11 Contacts

The **Contacts** module stores information about people and organizations.

Typical contact details include:

- Name
- Email address
- Phone number
- Company
- Address
- Notes

Creating a Contact

1. Go to **People** or **Contacts**.
2. Click **New Contact**.
3. Enter the contact details.
4. Click **Save & Close**.

7.12 Contact Groups

A **Contact Group** allows you to send one email to multiple recipients.

Example:

Computer Class

- Alice
- Brian
- Carol
- David
- Esther

7.13 Outlook Calendar

The Calendar helps you schedule:

- Meetings
- Classes
- Appointments
- Deadlines
- Holidays

Views include:

- Day
- Work Week
- Week
- Month

Illustration

Monday

09:00 ICT Lesson

11:00 Staff Meeting

02:00 Computer Lab

04:00 Assignment Deadline

7.14 Scheduling an Appointment

Steps:

1. Open **Calendar**.
2. Select **New Appointment**.
3. Enter:
    - Subject
    - Location
    - Date
    - Start time
    - End time
4. Save the appointment.

7.15 Scheduling a Meeting

A meeting invitation includes:

- Participants
- Date
- Time
- Location or online meeting link
- Agenda

Participants can:

- Accept
- Decline
- Propose a new time

7.16 Tasks

Tasks help you manage work.

Examples:

- Finish assignment
- Submit report
- Prepare presentation
- Attend training

Creating a Task

1. Select **Tasks**.
2. Click **New Task**.
3. Enter:
    - Task name
    - Due date
    - Priority
4. Save.

Example Task List

Task	Due Date	Status
Complete Word assignment	Monday	In Progress
Study Excel formulas	Tuesday	Not Started
Prepare PowerPoint	Friday	Completed

7.17 Notes

Outlook Notes are digital sticky notes.

You can record:

- Phone numbers
- Ideas
- Meeting reminders
- To-do items

7.18 Categories

Categories use colors to organize Outlook items.

Example:

Category	Color
Urgent	Red
Personal	Blue
Finance	Green
School	Yellow

7.19 Rules

Rules automatically organize incoming emails.

Example:

Move all emails from:

training@college.edu

to:

Training Folder

7.20 Email Signatures

A signature is automatically added to the end of your emails.

Example:

John Doe

ICT Trainer

ABC Training Institute

Phone: +254 XXX XXX XXX

Email: john@example.com

7.21 Out-of-Office Reply

When away from work, Outlook can automatically send a reply.

Example:

Thank you for your email. I am currently away from the office and will respond on my return.

7.22 Email Etiquette

Good email etiquette includes:

- Use a clear subject line.
- Be polite.
- Keep messages brief.
- Avoid unnecessary attachments.
- Proofread before sending.
- Reply promptly.
- Avoid using ALL CAPS.
- Respect confidentiality.

7.23 Email Security

Protect yourself by:

- Using strong passwords.
- Enabling two-factor authentication (2FA).
- Avoiding suspicious attachments.

- Not clicking unknown links.
- Updating antivirus software.
- Logging out of shared computers.

Useful Keyboard Shortcuts

Shortcut	Function
Ctrl + N	New Email
Ctrl + Enter	Send Email
Ctrl + R	Reply
Ctrl + Shift + R	Reply All
Ctrl + F	Forward
Ctrl + Shift + M	New Message
Ctrl + Shift + A	New Appointment
Ctrl + Shift + Q	New Meeting Request
Ctrl + E	Search
F9	Send/Receive All

Chapter Summary

In this chapter, you learned:

- The purpose of Microsoft Outlook
- How to configure an email account
- How to compose, send, reply to, and forward emails
- How to attach files
- How to organize emails using folders and rules
- How to manage contacts and contact groups
- How to schedule appointments and meetings
- How to use tasks and notes
- Best practices for email etiquette and security

Review Questions

1. What is Microsoft Outlook used for?
2. Name the main modules in Outlook.
3. Explain the difference between **Reply** and **Reply All**.
4. What is the purpose of the Calendar?
5. How do you create a contact?
6. What is a Contact Group?
7. Explain how Rules can help organize email.
8. Why is an email signature useful?
9. List five email security practices.
10. Explain the purpose of Tasks in Outlook.

Practical Exercise

Using Outlook (or a training email account), complete the following:

1. Configure your email account if required.
2. Create a folder named **ICT Course**.
3. Send an email with the subject **Microsoft Outlook Practical** to your instructor or a practice account.
4. Attach a Word document created in Chapter 4.
5. Create two new contacts and save them.
6. Create a Contact Group named **Computer Class** and add the two contacts.
7. Schedule a meeting titled **ICT Revision Session** for next week.
8. Add a task titled **Complete Excel Assignment** with a due date.
9. Create a professional email signature.
10. Create a rule that automatically moves emails from your instructor into the **ICT Course** folder.

Mini Project

Imagine you are the **ICT Coordinator** for a training institution. Use Outlook to organize your weekly activities:

- Create a calendar with classes and meetings for one week.
- Add five student contacts.
- Create a Contact Group for the class.
- Send a meeting invitation for a practical computer session.
- Create three tasks with reminders.
- Design a professional email signature including your name, job title, institution, and contact details.

This project demonstrates how Outlook can be used as a complete productivity and communication tool in an educational or office environment.

Computer Basics and Microsoft Office Student Manual

Chapter 8: OneDrive and Cloud Computing (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

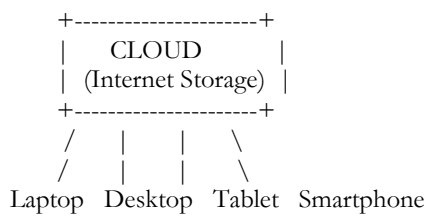
- Define cloud computing.
- Explain the advantages and disadvantages of cloud computing.
- Understand the purpose of Microsoft OneDrive.
- Sign in to OneDrive.
- Upload, download, and organize files.
- Create folders in OneDrive.
- Share files and folders securely.
- Collaborate on documents in real time.
- Restore deleted files from the Recycle Bin.
- Synchronize files between your computer and the cloud.
- Apply best practices for cloud security.

8.1 What is Cloud Computing?

Cloud computing is the delivery of computing services such as storage, software, and processing power over the Internet instead of relying only on a local computer.

With cloud computing, your files and applications can be accessed from almost anywhere with an Internet connection.

Illustration: Cloud Computing



Instead of saving files only on your computer, you save them in the cloud, making them available on multiple devices.

8.2 Examples of Cloud Services

Some popular cloud services include:

Service	Purpose
Microsoft OneDrive	File storage and sharing
Google Drive	File storage and collaboration
Dropbox	File storage
Apple iCloud	Backup and synchronization
Microsoft 365	Online Office applications

8.3 Advantages of Cloud Computing

Cloud computing offers several benefits:

- Access files from anywhere.
- Automatic backup of important documents.
- Easy file sharing.
- Real-time collaboration.
- Reduced risk of data loss from computer failure.
- Scalable storage options.
- Synchronization across multiple devices.

8.4 Disadvantages of Cloud Computing

Some challenges include:

- Requires an Internet connection for most features.
- Subscription costs for additional storage.
- Security risks if passwords are weak.
- Temporary service interruptions may affect access.

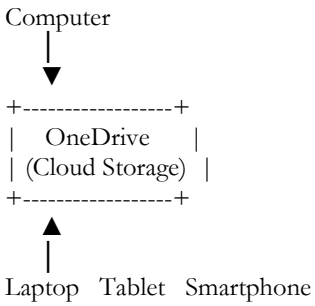
8.5 What is Microsoft OneDrive?

Microsoft OneDrive is Microsoft's cloud storage service included with Microsoft 365.

It allows users to:

- Store files online.
- Synchronize files across devices.
- Share documents with others.
- Collaborate in Microsoft Word, Excel, and PowerPoint.

Illustration: OneDrive Workflow



8.6 Signing In to OneDrive

To use OneDrive:

1. Open OneDrive from the Start menu or system tray.
2. Enter your Microsoft account email address.
3. Enter your password.
4. Complete any security verification.
5. Choose the OneDrive folder location on your computer.

8.7 Understanding the OneDrive Folder

When OneDrive is installed, it creates a special folder on your computer.

Example:

OneDrive

- Documents
- Pictures
- Assignments
- Excel Files
- PowerPoint
- Word Documents

Files saved here are synchronized with the cloud.

8.8 Uploading Files

To upload a file:

1. Open your OneDrive folder.
2. Drag and drop the file into the folder.

Alternatively:

1. Sign in to the OneDrive website.
2. Select **Upload**.
3. Choose the file.
4. Wait for the upload to complete.

Activity

Upload the following files to OneDrive:

- Computer_Literacy_Report.docx
- Student_Marks.xlsx
- Introduction_to_Computer_Systems.pptx

8.9 Downloading Files

To download a file:

1. Open OneDrive.
2. Select the file.
3. Click **Download**.
4. Save it to your preferred location.

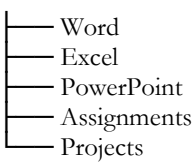
8.10 Creating Folders

To create a folder:

1. Open OneDrive.
2. Click **New**.
3. Select **Folder**.
4. Enter the folder name.
5. Click **Create**.

Example:

ICT Course



8.11 Sharing Files

OneDrive allows you to share files with others.

Steps:

1. Right-click the file.
2. Select **Share**.
3. Enter the recipient's email address or create a sharing link.
4. Choose permissions:
    - Can edit
    - Can view
5. Send the invitation or copy the link.

8.12 Collaboration

OneDrive supports **real-time collaboration**.

Multiple users can:

- Edit the same document.
- Leave comments.
- Track changes.
- See updates instantly.

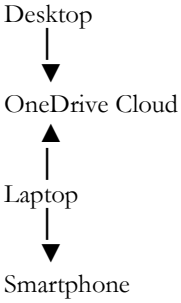
Example:

Two students working on the same group assignment in Microsoft Word.

8.13 Synchronization

Synchronization keeps files updated across all connected devices.

Example:



If you edit a document on your laptop, the updated version is available on your desktop and smartphone after synchronization.

8.14 Version History

OneDrive saves previous versions of many files.

This allows you to:

- Restore an earlier version.
- Recover accidental changes.
- Compare document versions.

8.15 Recycle Bin

Deleted files are moved to the OneDrive Recycle Bin.

To restore a file:

1. Open the Recycle Bin.
2. Select the file.
3. Click **Restore**.

8.16 Offline Access

Files marked as **Always keep on this device** remain available even when you are not connected to the Internet.

This is useful for travel or areas with unreliable connectivity.

8.17 Cloud Storage Best Practices

- Organize files into folders.
- Use meaningful file names.
- Avoid storing duplicate copies.
- Delete unnecessary files.
- Back up critical information.
- Review sharing permissions regularly.

8.18 Security in OneDrive

Protect your files by:

- Using a strong password.
- Enabling **Multi-Factor Authentication (MFA)**.
- Signing out of shared computers.
- Sharing files only with trusted people.
- Reviewing recent account activity.

8.19 Storage Indicators

You may see different icons beside files:

Icon	Meaning
☁	File stored online only
✓	File downloaded and available locally
✓ (solid green)	Always available on this device
🔄	File is currently synchronizing

8.20 Keyboard Shortcuts

Shortcut	Function
Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + X	Cut
Ctrl + Z	Undo
F2	Rename selected file
Delete	Move to Recycle Bin
Shift + Delete	Permanently delete (local files)

Chapter Summary

In this chapter, you learned:

- The concept of cloud computing.
- The advantages and disadvantages of cloud services.
- How Microsoft OneDrive stores and synchronizes files.
- How to upload, download, and organize files.
- How to share files securely.
- How to collaborate on documents in real time.
- How to restore deleted files.
- Best practices for cloud security and file management.

Review Questions

1. Define cloud computing.
2. What is Microsoft OneDrive?
3. List five advantages of cloud computing.
4. What are two disadvantages of cloud computing?
5. Explain how to upload a file to OneDrive.
6. How can you share a document with another user?
7. What is synchronization?
8. What is version history used for?
9. Why is Multi-Factor Authentication (MFA) important?
10. Explain the difference between an online-only file and a file that is always available on your device.

Practical Exercise

Complete the following tasks:

1. Sign in to your OneDrive account.
2. Create a folder named **Computer Skills**.
3. Inside it, create the following subfolders:
    - Word
    - Excel
    - PowerPoint
    - Projects
4. Upload:
    - A Word document
    - An Excel workbook
    - A PowerPoint presentation
5. Share the **Projects** folder with a classmate or instructor using **view-only** permission.
6. Edit one of the uploaded files and confirm that the changes synchronize across another device (if available).
7. Delete one file and restore it from the OneDrive Recycle Bin.
8. Mark one important file as **Always keep on this device**.
9. Check your available storage space.
10. Sign out of OneDrive on a shared computer.

Mini Project

Create a **Cloud-Based Student Portfolio** in OneDrive.

Your portfolio should include:

- A folder structure for each Microsoft Office application.
- Your completed assignments from Chapters 4, 5, and 6.
- A resume (CV) created in Microsoft Word.
- An Excel budget worksheet.
- A PowerPoint presentation introducing yourself.
- A shared folder for group work.
- Proper file names and organized folders.

Finally, share the portfolio with your instructor using **view-only** access and ensure that all files are synchronized.

Computer Basics and Microsoft Office Student Manual

Chapter 9: Microsoft Teams and Online Collaboration (Microsoft 365 / Office 2021)

Learning Objectives

By the end of this chapter, you should be able to:

- Explain the purpose of Microsoft Teams.
- Sign in to Microsoft Teams.
- Navigate the Teams interface.
- Create and join teams.
- Participate in online meetings.
- Use chat and channels for communication.
- Share files and collaborate on documents.
- Schedule meetings using Outlook and Teams.
- Share your screen during presentations.
- Record meetings (where permitted).
- Apply online meeting etiquette and security practices.

9.1 What is Microsoft Teams?

Microsoft Teams is a collaboration platform included with Microsoft 365. It combines chat, video meetings, file sharing, and teamwork tools in one application.

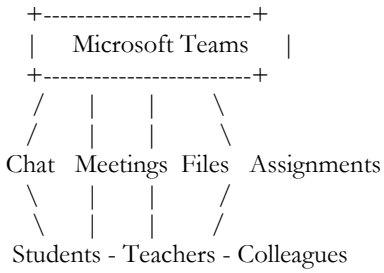
Microsoft Teams is widely used in:

- Schools and universities
- Businesses and government offices
- Non-profit organizations
- Remote and hybrid workplaces

With Teams, users can:

- Chat with individuals or groups
- Hold audio and video meetings
- Share files
- Collaborate on Word, Excel, and PowerPoint documents
- Manage projects and assignments

Illustration: Microsoft Teams Collaboration



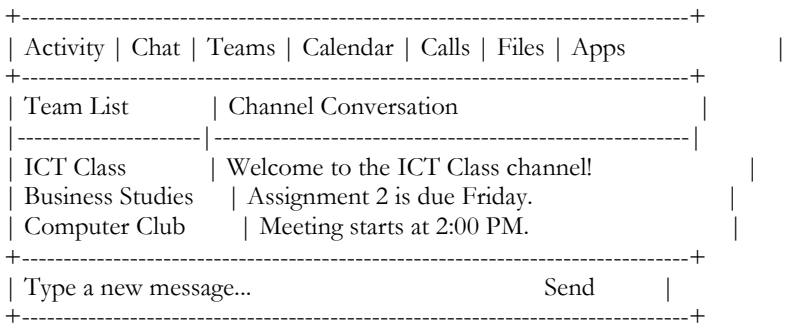
9.2 Signing In to Teams

To sign in:

1. Open Microsoft Teams.
2. Enter your Microsoft 365 account email address.
3. Enter your password.
4. Complete any multi-factor authentication (if required).
5. Teams opens to the main dashboard.

9.3 The Microsoft Teams Interface

Illustration: Teams Window



Main Navigation Menu

Menu	Purpose
Activity	Notifications and recent activity
Chat	Private and group conversations
Teams	Teams and channels
Calendar	Meetings and appointments
Calls	Voice and video calls
Files	Shared and personal files
Apps	Additional Microsoft and third-party apps

Activity

Open Teams and identify:

- Activity
- Chat
- Teams
- Calendar
- Files
- Profile icon

9.4 Teams and Channels

A **Team** is a group of people working together.

A **Channel** is a section within a team dedicated to a specific topic or project.

Example:

```
ICT Department
│
├── General
├── Assignments
├── Practical Sessions
├── Projects
└── Announcements
```

9.5 Creating a Team

Steps:

1. Go to **Teams**.
2. Click **Join or Create Team**.
3. Select **Create Team**.
4. Choose a team type (Class, Staff, Project, etc.).
5. Enter the team name and description.
6. Add members.
7. Click **Create**.

9.6 Joining a Team

You can join by:

- Using a team code.
- Accepting an invitation.
- Requesting access to a public team.

9.7 Chat

The Chat feature allows you to:

- Send text messages.
- Share emojis and reactions.
- Attach files.
- Make voice or video calls.

Sending a Chat Message

1. Select **Chat**.
2. Click **New Chat**.
3. Enter the recipient's name.
4. Type your message.
5. Press **Enter** or click **Send**.

Activity

Send a message to a classmate or instructor saying:

"Good morning. I have completed Chapter 9 practical activities."

9.8 Scheduling a Meeting

To schedule a meeting:

1. Open **Calendar**.
2. Click **New Meeting**.
3. Enter:
    - Meeting title
    - Date
    - Start and end time
    - Participants
    - Agenda
4. Click **Send**.

Participants receive a meeting invitation.

9.9 Joining an Online Meeting

To join:

1. Open Teams.
2. Select the meeting from **Calendar**.
3. Click **Join**.
4. Configure:
    - Camera
    - Microphone
    - Speakers
5. Click **Join Now**.

Meeting Controls

Button	Function
	Mute/Unmute microphone
	Turn camera on/off
	Share screen
	Open chat
	View participants
	Raise hand
	Start recording (if permitted)
	Leave meeting

9.10 Screen Sharing

Screen sharing allows you to present:

- Your entire desktop.
- A specific application window.
- A PowerPoint presentation.
- A digital whiteboard.

Use screen sharing to demonstrate software, present reports, or teach a lesson.

9.11 File Sharing

Teams integrates with OneDrive and SharePoint.

You can:

- Upload documents.
- Share links.
- Collaborate in real time.
- Control who can edit or view files.

Example Folder Structure

ICT Class Files
- Assignments
- Lecture Notes
- Presentations
- Projects
- Exams

9.12 Collaborating on Documents

When a Word, Excel, or PowerPoint file is shared in Teams:

- Multiple users can edit simultaneously.
- Changes are saved automatically.
- Comments can be added.
- Version history is available.

9.13 Using the Whiteboard

Microsoft Whiteboard allows participants to:

- Draw diagrams.
- Write notes.
- Brainstorm ideas.
- Collaborate visually during meetings.

9.14 Recording Meetings

If permitted by your organization:

1. Click **More actions** (⋯).
2. Select **Start recording**.

Recordings are useful for:

- Students who missed the class.
- Reviewing lessons.
- Training documentation.

Always inform participants before recording and follow your organization's privacy policies.

9.15 Background Effects

You can:

- Blur your background.
- Choose a virtual background.
- Upload a custom background (if enabled).

This helps maintain privacy during online meetings.

9.16 Meeting Etiquette

Follow these best practices:

- Join the meeting on time.
- Mute your microphone when not speaking.
- Dress appropriately.
- Test your camera and microphone before the meeting.
- Avoid background noise.
- Raise your hand before speaking.
- Stay focused on the discussion.
- Be respectful of others.

9.17 Teams Notifications

Customize notifications for:

- New messages
- Mentions
- Meeting reminders
- Team activity

This helps you stay informed without becoming distracted.

9.18 Security and Privacy

Protect your Teams account by:

- Using a strong password.
- Enabling Multi-Factor Authentication (MFA).
- Not sharing meeting links publicly unless appropriate.
- Verifying participants before admitting them to a meeting.
- Keeping confidential discussions within authorized teams.

9.19 Keyboard Shortcuts

Shortcut	Function
Ctrl + N	Start new chat
Ctrl + E	Search
Ctrl + Shift + M	Mute/Unmute microphone during a meeting
Ctrl + Shift + O	Turn camera on/off (desktop app)
Ctrl + .	Show keyboard shortcuts
Esc	Close a dialog or menu

Note: Shortcuts may vary slightly depending on the operating system and Teams version.

Chapter Summary

In this chapter, you learned:

- The purpose of Microsoft Teams.
- How to sign in and navigate the interface.
- The difference between Teams and Channels.
- How to create and join teams.
- How to schedule and join meetings.
- How to use chat and file sharing.
- How to collaborate on Microsoft Office documents.
- How to share your screen and use the Whiteboard.
- Best practices for online meeting etiquette and security.

Review Questions

1. What is Microsoft Teams used for?
2. Explain the difference between a Team and a Channel.
3. How do you schedule a meeting in Teams?
4. List four meeting controls available during a Teams meeting.

5. What are the benefits of screen sharing?
6. How can multiple users collaborate on the same document?
7. Why is it important to mute your microphone when not speaking?
8. What is the purpose of the Whiteboard feature?
9. Name three security practices for using Teams.
10. Explain the importance of meeting etiquette.

Practical Exercise

Complete the following tasks:

1. Sign in to Microsoft Teams.
2. Join a class team using a team code or invitation.
3. Send a greeting in the **General** channel.
4. Start a private chat with a classmate or instructor.
5. Upload a Word document to the **Assignments** channel.
6. Edit the document together with another participant.
7. Schedule a 30-minute meeting titled **ICT Group Discussion**.
8. During the meeting:
    - Turn your camera on.
    - Mute and unmute your microphone.
    - Share your screen.
    - Use the chat panel.
9. If permitted, record a short portion of the meeting.
10. Leave the meeting and review the shared files.

Mini Project

You are part of a student group preparing a presentation on **"Digital Transformation in Education."**

Working in Microsoft Teams:

- Create a team named **Digital Transformation Project**.
- Create channels for **Research**, **Presentation**, and **Resources**.
- Upload a Word report, an Excel data sheet, and a PowerPoint presentation.
- Schedule a project meeting and invite your team members.
- Collaborate on the presentation in real time.
- Share your screen during the meeting to present your slides.
- Use the Whiteboard to brainstorm ideas.
- Assign tasks to team members and track progress.

This project demonstrates how Teams supports communication, collaboration, and project management in both educational and workplace environments.

Computer Basics and Microsoft Office Student Manual

Chapter 10: Artificial Intelligence (AI) and Microsoft Copilot (Microsoft 365 / Office 2021/2024)

Learning Objectives

By the end of this chapter, you should be able to:

- Define Artificial Intelligence (AI).
- Explain the history and evolution of AI.
- Identify different types of AI.
- Understand Machine Learning and Generative AI.
- Explain how Microsoft Copilot works.
- Use AI responsibly in Microsoft Office applications.
- Write effective AI prompts.
- Recognize the limitations and ethical issues of AI.
- Apply AI tools to improve productivity in school and the workplace.

10.1 What is Artificial Intelligence (AI)?

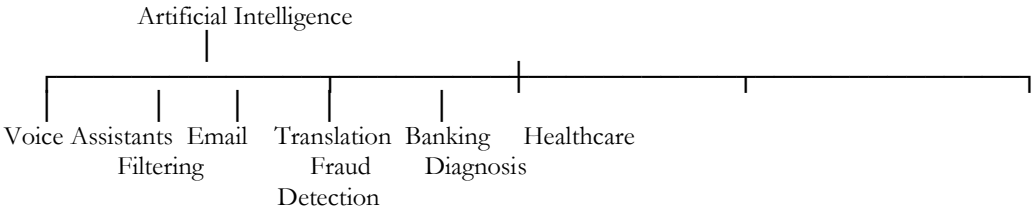
Artificial Intelligence (AI) is the branch of computer science that enables computers and machines to perform tasks that normally require human intelligence.

These tasks include:

- Learning
- Reasoning
- Problem-solving
- Understanding language
- Recognizing images
- Making predictions
- Generating text, images, audio, and code

AI is now used in education, healthcare, banking, agriculture, transportation, entertainment, and business.

Illustration: AI in Everyday Life



10.2 Brief History of AI

Year	Development
1956	The term "Artificial Intelligence" was introduced at the Dartmouth Conference.
1960s	Early AI programs solved mathematical and logical problems.
1980s	Expert systems became popular in businesses.
1997	IBM Deep Blue defeated world chess champion Garry Kasparov.
2010s	Machine Learning and Deep Learning advanced rapidly.
2020s	Generative AI became widely available for creating text, images, and code.

10.3 Types of Artificial Intelligence

1. Narrow AI (Weak AI)

Designed to perform a specific task.

Examples:

- Email spam filters
- Voice assistants
- Recommendation systems
- Face recognition

---

2. General AI (Strong AI)

A theoretical form of AI that would be capable of performing any intellectual task a human can do.

General AI does not currently exist.

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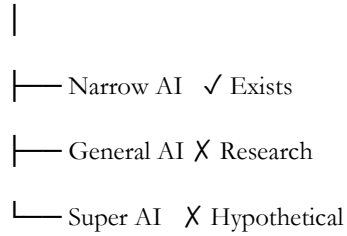
3. Super AI

A hypothetical future AI that would exceed human intelligence in nearly every area.

Super AI does not currently exist.

Illustration

Artificial Intelligence



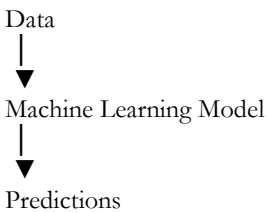
10.4 Machine Learning (ML)

Machine Learning is a branch of AI in which computers learn from data rather than being explicitly programmed for every task.

Examples include:

- Predicting weather
- Detecting fraud
- Recommending products
- Predicting student performance

Illustration



10.5 Deep Learning

Deep Learning is a specialized form of Machine Learning that uses artificial neural networks inspired by the human brain.

It is used for:

- Speech recognition
- Image recognition
- Medical diagnosis
- Self-driving cars
- Language translation

10.6 Generative AI

Generative AI creates new content such as:

- Essays
- Reports
- Images
- Music
- Computer code
- Videos
- Presentations

Examples of tasks:

- Writing a business letter
- Designing a presentation
- Creating lesson plans
- Summarizing documents

10.7 What is Microsoft Copilot?

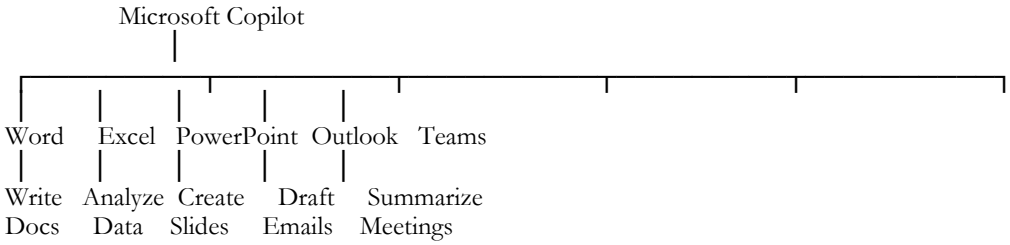
Microsoft Copilot is an AI-powered assistant integrated into Microsoft 365 applications.

Depending on your Microsoft 365 subscription and organization, Copilot can assist in:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Outlook
- Microsoft Teams

Copilot helps users create, summarize, analyze, and edit content using natural language prompts.

Illustration: Microsoft Copilot Across Apps



10.8 Using Copilot in Microsoft Word

Copilot can help you:

- Draft reports
- Rewrite text
- Summarize long documents
- Correct grammar
- Change writing tone
- Create outlines

Example Prompt

Write a one-page report explaining the advantages of cloud computing for small businesses.

10.9 Using Copilot in Microsoft Excel

Copilot can:

- Analyze data
- Create formulas
- Generate charts
- Identify trends
- Summarize spreadsheets

Example Prompt

Analyze this sales data and identify the top three performing products.

10.10 Using Copilot in Microsoft PowerPoint

Copilot can:

- Create presentations from prompts
- Generate speaker notes
- Suggest layouts
- Summarize documents into slides

- Add images and design ideas (where supported)

Example Prompt

Create a 10-slide presentation about cyber security for secondary school students.

10.11 Using Copilot in Microsoft Outlook

Copilot can:

- Draft professional emails
- Summarize long email threads
- Suggest replies
- Improve tone and clarity
- Organize meeting information

Example Prompt

Draft a polite email requesting an extension for submitting my assignment.

10.12 Using Copilot in Microsoft Teams

Copilot can help:

- Summarize meetings
- Capture action items
- Identify decisions made
- Answer questions about meeting discussions
- Generate follow-up notes

10.13 Writing Effective AI Prompts

A **prompt** is an instruction or question given to an AI system.

Good prompts are:

- Clear
- Specific
- Detailed
- Goal-oriented

Weak Prompt

Write about computers.

Better Prompt

Write a 500-word report explaining the components of a computer system. Include examples and use simple language suitable for beginners.

10.14 Tips for Better Prompts

- State the purpose.
- Specify the audience.
- Mention the desired length.
- Request a format (table, report, list, presentation).
- Ask for examples.
- Specify the tone (formal, friendly, academic).

10.15 Responsible Use of AI

AI should be used responsibly.

Good practices include:

- Verify AI-generated information.
- Cite sources when required.
- Use AI to assist learning, not replace it.
- Protect personal and confidential information.
- Follow your institution's academic integrity policies.

10.16 Limitations of AI

AI is powerful but has limitations:

- It can produce incorrect or outdated information.
- It may misunderstand unclear prompts.
- It lacks human judgment and common sense.
- It may reflect biases present in training data.
- It cannot replace human creativity, ethics, or accountability.

Always review AI-generated content before using it.

10.17 AI Ethics

Ethical considerations include:

- Privacy
- Data protection
- Fairness
- Transparency
- Accountability
- Avoiding plagiarism
- Respecting intellectual property

10.18 AI in Education

AI can help students:

- Explain difficult concepts.
- Practice languages.
- Solve mathematical problems (with understanding).
- Prepare presentations.
- Organize study schedules.
- Generate revision questions.

Teachers can use AI to:

- Prepare lesson plans.
- Create quizzes.
- Draft learning materials.
- Provide feedback on assignments.

10.19 AI in Business

Businesses use AI for:

- Customer support chatbots
- Sales forecasting
- Inventory management
- Fraud detection
- Marketing analysis
- Document automation
- Recruitment support

10.20 AI Safety Tips

- Never share passwords with AI tools.
- Avoid entering confidential company or personal data unless approved.
- Verify important facts using reliable sources.
- Review AI-generated work before submitting or publishing it.
- Be aware of your organization's AI usage policies.

10.21 Practice Prompts

Try these prompts:

1. Create a study timetable for a computer course.
2. Explain cloud computing in simple language.
3. Summarize a two-page report into five bullet points.
4. Draft a professional job application email.
5. Create a PowerPoint outline about computer security.
6. Suggest formulas for analyzing sales data in Excel.
7. Generate five ICT quiz questions with answers.
8. Rewrite a paragraph to make it more formal.

Chapter Summary

In this chapter, you learned:

- What Artificial Intelligence is.
- The history and types of AI.
- The difference between Machine Learning, Deep Learning, and Generative AI.
- How Microsoft Copilot assists users across Microsoft 365 applications.
- How to write effective prompts.
- The benefits, limitations, and ethical considerations of AI.
- How to use AI responsibly in education and the workplace.

Review Questions

1. Define Artificial Intelligence.
2. Differentiate between Narrow AI and General AI.
3. What is Machine Learning?
4. Explain Generative AI.
5. List five tasks Microsoft Copilot can perform in Microsoft Word.
6. Why are clear prompts important when using AI?
7. State four limitations of AI.
8. What ethical issues should users consider when using AI?
9. Explain how AI can improve productivity in the workplace.
10. Why should AI-generated content always be reviewed?

Practical Exercise

Complete the following activities using an AI assistant or Microsoft Copilot (if available):

1. Draft a one-page report titled **"The Importance of Digital Literacy."**
2. Ask the AI to summarize the report into five bullet points.
3. Generate a five-slide presentation outline on **Cyber Security**.
4. Create a monthly budget table suitable for Microsoft Excel.
5. Draft a professional email requesting internship opportunities.
6. Rewrite a paragraph in a more formal tone.
7. Generate ten multiple-choice ICT questions with answers.
8. Review all AI-generated content and correct any inaccuracies or formatting issues.

Mini Project

AI-Assisted Office Productivity Project

You have been asked to prepare materials for a school ICT awareness seminar.

Use AI (where available) to help create:

- A **Word report** explaining responsible use of AI.
- An **Excel worksheet** showing projected seminar costs.
- A **PowerPoint presentation** with 8–10 slides summarizing the seminar topics.
- A **professional invitation email** for participants.
- A **meeting agenda** for the seminar.

Review and edit all AI-generated content to ensure it is accurate, original, and appropriate for your audience.

End-of-Chapter Checklist

After completing this chapter, you should be able to:

✓ Explain what AI is and how it works at a basic level.
✓ Distinguish between Machine Learning, Deep Learning, and Generative AI.
✓ Use Microsoft Copilot to assist with common Microsoft 365 tasks.
✓ Write clear and effective AI prompts.
✓ Recognize the strengths and limitations of AI.
✓ Apply ethical and responsible practices when using AI tools.

Computer Basics and Microsoft Office Student Manual

Chapter 11: Computer Security, Cyber Safety, and Digital Citizenship

(Comprehensive Edition for Students and Professionals)

Learning Objectives

By the end of this chapter, you should be able to:

- Define cybersecurity and explain its importance.
- Identify common cyber threats and attacks.
- Differentiate between viruses, worms, Trojans, ransomware, spyware, and other malware.
- Create and manage strong passwords.
- Explain Multi-Factor Authentication (MFA).
- Recognize phishing and social engineering attacks.
- Browse the Internet safely.
- Protect personal and organizational data.
- Explain digital citizenship and online ethics.
- Apply cybersecurity best practices at school, home, and work.

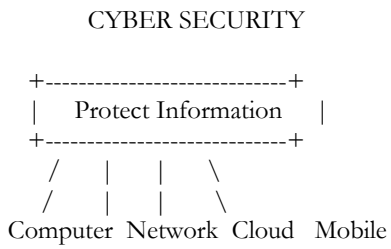
11.1 Introduction to Computer Security

Computer Security (also called **Cybersecurity**) is the protection of computers, networks, software, and data from unauthorized access, theft, damage, or attacks.

Cybersecurity protects:

- Computers
- Mobile phones
- Networks
- Servers
- Cloud storage
- Online accounts
- Personal information
- Business data

Illustration: Cybersecurity



11.2 Why Cybersecurity is Important

Cybersecurity helps to:

- Protect personal information.
- Prevent financial fraud.
- Protect business information.
- Prevent identity theft.
- Secure online banking.
- Protect government systems.
- Ensure business continuity.
- Protect educational records.

Case Study

A school stores examination results on its computers.

Without security:

- Hackers may steal student records.
- Files may be deleted.
- Ransomware may lock all records.

With proper cybersecurity:

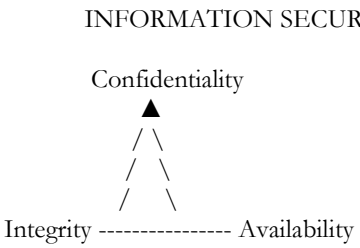
- Files remain protected.
- Users authenticate securely.
- Backups enable recovery.

11.3 The CIA Triad

The **CIA Triad** is the foundation of information security.

Principle	Meaning
Confidentiality	Only authorized people can access information.
Integrity	Information remains accurate and unaltered.
Availability	Information is available when needed.

Illustration



11.4 Common Cyber Threats

Some common cyber threats include:

- Malware
- Viruses
- Worms
- Trojans
- Spyware
- Ransomware
- Phishing
- Identity theft
- Data breaches
- Insider threats
- Social engineering

11.5 Malware

Malware means **malicious software** designed to damage, disrupt, or gain unauthorized access to computer systems.

Types include:

- Virus

- Worm
- Trojan Horse
- Spyware
- Adware
- Ransomware
- Rootkits
- Keyloggers

11.6 Computer Viruses

A **computer virus** is a malicious program that attaches itself to legitimate files and spreads when those files are opened.

Effects

- Corrupt files
- Slow down computers
- Delete data
- Prevent programs from running

Illustration

Healthy File

📄 Document

↓

Virus Infection

📄 + ☣

↓

Multiple Infected Files

11.7 Worms

A **worm** is malware that spreads automatically across networks without user action.

Characteristics:

- Self-replicates
- Uses network connections
- Consumes bandwidth
- Slows networks

11.8 Trojan Horse

A **Trojan Horse** appears to be useful software but secretly performs harmful actions.

Examples:

- Fake antivirus software
- Fake games
- Fake software updates

11.9 Spyware

Spyware secretly collects information about a user.

It may record:

- Passwords
- Browsing history
- Emails
- Banking information

11.10 Ransomware

Ransomware encrypts files and demands payment for their release.

Typical attack:

Computer

↓

Files Encrypted

↓

Payment Requested

↓

Possible Recovery (not guaranteed)

Never assume paying the ransom will restore your files. Organizations should instead rely on backups, incident response procedures, and guidance from security professionals.

11.11 Adware

Adware displays unwanted advertisements.

Symptoms:

- Pop-up windows
- Browser redirects
- Slow browsing
- Unexpected toolbars

11.12 Phishing

Phishing is an attempt to trick people into revealing confidential information.

Attackers may request:

- Passwords
- Banking information
- PIN numbers
- One-time verification codes

Example

Subject:

URGENT!!

Your bank account has been suspended.

Click here immediately to verify.

Warning signs:

- Poor spelling
- Unexpected urgency
- Suspicious links
- Unknown sender

11.13 Social Engineering

Social engineering manipulates people rather than computers.

Examples:

- Someone pretending to be IT support.
- Fake delivery personnel.
- Fake phone calls requesting passwords.
- Messages asking you to bypass normal procedures.

11.14 Password Security

A strong password should:

- Contain at least 12–16 characters.
- Include uppercase and lowercase letters.
- Include numbers.
- Include symbols.
- Avoid personal information.

Weak Passwords

123456

password

abc123

qwerty

Strong Password Examples

B!ueRiver#2026

Mango$Tree!48

Study@ICT2026

Password Best Practices

- Use a unique password for each account.
- Do not share passwords.
- Change passwords if you suspect they are compromised.
- Consider using a reputable password manager.
- Avoid writing passwords where others can easily access them.

11.15 Multi-Factor Authentication (MFA)

MFA requires two or more forms of verification before access is granted.

Example:

Username

↓

Password

↓

Phone Verification Code

↓

Access Granted

Benefits:

- Stronger account protection
- Reduced risk from stolen passwords

11.16 Safe Internet Browsing

Good browsing habits include:

- Visit trusted websites.
- Check that websites use **HTTPS** before entering sensitive information.
- Avoid downloading software from unknown sources.
- Keep your browser updated.
- Review website addresses carefully.

11.17 Safe Email Practices

Before opening an email:

- Check the sender.
- Read the subject carefully.
- Do not open unexpected attachments.
- Hover over links to inspect the destination before clicking (where possible).
- Verify unusual requests through another trusted communication method.

11.18 Safe Social Media Use

Protect yourself by:

- Limiting the personal information you share publicly.
- Reviewing privacy settings regularly.
- Being cautious when accepting friend requests from strangers.
- Thinking carefully before posting photos or personal details.

11.19 Data Backup

A **backup** is a copy of important information that can be used if the original data is lost or damaged.

Types of Backup

Type	Description
Full Backup	Copies all selected files.
Incremental Backup	Copies only changes since the last backup.
Differential Backup	Copies changes since the last full backup.

Illustration

Original Files

↓

Backup

↓

Hard Drive / Cloud Storage

↓

Restore if Needed

11.20 Firewalls

A **firewall** monitors and controls network traffic entering and leaving a computer or network.

It helps block unauthorized access while allowing legitimate communication.

11.21 Antivirus Software

Antivirus software helps to:

- Detect malware.
- Remove malicious software.
- Monitor suspicious activity.
- Scan files automatically.

Keep antivirus software updated to improve protection against new threats.

11.22 Software Updates

Updates often include:

- Security patches
- Bug fixes
- Performance improvements
- New features

Enable automatic updates where appropriate.

11.23 Digital Citizenship

A **digital citizen** uses technology responsibly, safely, ethically, and respectfully.

Good digital citizens:

- Respect others online.
- Protect personal information.
- Follow laws and school policies.
- Respect copyright.
- Communicate politely.

11.24 Cyberbullying

Cyberbullying involves using technology to harass, threaten, or embarrass another person.

Examples:

- Sending abusive messages
- Sharing embarrassing photos without permission
- Creating fake accounts to impersonate someone

If you experience or witness cyberbullying:

- Save evidence if it is safe to do so.
- Block the offender where possible.
- Report the behavior to the platform, school, workplace, or a trusted adult/authority as appropriate.

11.25 Protecting Personal Information

Do not publicly share:

- Passwords
- Bank account details
- National identification numbers
- Home address
- One-time security codes

Only provide sensitive information to trusted organizations through secure channels.

11.26 Cybersecurity Best Practices Checklist

✓ Use strong passwords.

✓ Enable MFA.

✓ Lock your computer when away.

✓ Install updates promptly.

✓ Use antivirus software.

✓ Back up important files regularly.

✓ Be cautious with links and attachments.

✓ Verify unexpected requests.

✓ Log out of shared computers.

✓ Report suspicious activity promptly.

Chapter Summary

In this chapter, you learned:

- The importance of cybersecurity.
- The CIA Triad: Confidentiality, Integrity, and Availability.
- Common cyber threats and malware.
- Password security and Multi-Factor Authentication.
- Safe Internet, email, and social media practices.
- Data backup and recovery concepts.
- The role of firewalls and antivirus software.
- Digital citizenship and responsible online behavior.

Review Questions

1. Define cybersecurity.
2. Explain the CIA Triad.
3. What is malware?
4. Differentiate between a virus, a worm, and a Trojan Horse.
5. What is phishing?
6. Why is Multi-Factor Authentication important?
7. List five characteristics of a strong password.
8. Explain the importance of regular data backups.
9. What is digital citizenship?
10. Describe five cybersecurity best practices.

Practical Exercise

Complete the following activities:

1. Create a strong password that follows the recommended guidelines.
2. Identify five signs of a phishing email.
3. Enable Multi-Factor Authentication on a practice or personal account if available.
4. Back up a folder containing your course assignments to an external drive or cloud storage.
5. Check that your operating system and antivirus software are up to date.
6. Review the privacy settings on one of your online accounts.
7. List three ways to protect yourself from cyberbullying.
8. Create a poster titled **"Think Before You Click!"** with five online safety tips.

Mini Project: Cybersecurity Awareness Campaign

Working individually or in groups, design a **Cybersecurity Awareness Campaign** for your school or workplace.

Your project should include:

Microsoft Word

- A two-page awareness brochure on cybersecurity best practices.

Microsoft Excel

- A spreadsheet summarizing common cyber threats, their effects, and prevention methods.

Microsoft PowerPoint

- A 10-slide presentation titled **"Staying Safe Online."**

Microsoft Outlook

- Draft a professional email inviting participants to a cybersecurity awareness seminar.

Microsoft Teams (Optional)

- Share your presentation with classmates and collect feedback through a collaborative discussion.

End-of-Chapter Checklist

After completing this chapter, you should be able to:

✓ Explain core cybersecurity concepts.
✓ Identify common cyber threats and scams.
✓ Create and manage strong passwords.
✓ Use Multi-Factor Authentication.
✓ Browse the Internet safely.
✓ Protect your personal information online.
✓ Back up and recover important data.
✓ Demonstrate responsible digital citizenship.
✓ Apply cybersecurity best practices at school, home, and work.

Computer Basics and Microsoft Office Student Manual

Chapter 12: Final Practical Projects, Mock Examination, and Course Revision

Capstone Edition (Comprehensive Student Assessment Manual)

Learning Objectives

By the end of this chapter, you should be able to:

- Demonstrate competency in Microsoft Windows.
- Create professional documents using Microsoft Word.
- Analyze and present data using Microsoft Excel.
- Design professional presentations in Microsoft PowerPoint.
- Communicate professionally using Microsoft Outlook.
- Store and collaborate using OneDrive and Microsoft Teams.
- Apply Artificial Intelligence (AI) tools responsibly.
- Practice cybersecurity best practices.
- Prepare for practical and theoretical examinations.

Chapter Overview

This chapter serves as the **capstone project** for the course. It combines all the skills learned in previous chapters into realistic workplace and academic scenarios.

Part I: Integrated Office Project

Scenario

You have been hired as an **ICT Assistant** at **Bright Future Training Institute**.

Your manager has assigned you the responsibility of organizing a **Digital Literacy Training Workshop** for new students.

You must use Microsoft Office applications to complete the project.

Task 1: Windows File Management (10 Marks)

Create the following folder structure:

Digital Literacy Workshop

|

├── Letters

├── Reports

├── Budgets

├── Presentations

├── Attendance

├── Certificates

├── Images

├── Videos

├── Backup

Requirements

✓ Create folders.

✓ Rename folders where necessary.

✓ Copy files.

✓ Move files.

✓ Delete unnecessary files.

✓ Restore one deleted file from the Recycle Bin.

Task 2: Microsoft Word Project (25 Marks)

Create a professional report titled:

DIGITAL LITERACY TRAINING PROGRAM

The report should include:

- Cover page
- Table of contents
- Introduction
- Objectives
- Training schedule
- Benefits
- Challenges
- Conclusion
- References

Formatting Requirements

- Font: Calibri
- Size: 12
- Line spacing: 1.5
- Justified paragraphs
- Page numbers
- Header and footer
- Table
- SmartArt
- Pictures
- WordArt title
- Page border

Illustration

DIGITAL LITERACY TRAINING

[Workshop Logo]

Prepared by:

Student Name

Institution

Date

Task 3: Microsoft Excel Project (25 Marks)

Create a workbook named:

Workshop_Budget.xlsx

Create the following worksheet.

Item	Quantity	Unit Cost	Total
Laptops	20	50,000	
Projector	2	70,000	
Chairs	50	2,500	
Internet	1	20,000	
Stationery	100	150	

Use formulas to calculate:

- Total Cost
- Grand Total
- Average Cost
- Highest Cost
- Lowest Cost

Apply:

✓ Currency formatting

✓ Borders

✓ Conditional Formatting

✓ Column Chart

✓ Pie Chart

Task 4: Microsoft PowerPoint Project (20 Marks)

Create a presentation containing **10 slides**.

Topics:

1. Title

2. Introduction
3. Objectives
4. Computer Basics
5. Microsoft Word
6. Microsoft Excel
7. Microsoft PowerPoint
8. Cybersecurity
9. Summary
10. Questions

Include

✓ Theme

✓ Pictures

✓ Icons

✓ SmartArt

✓ Charts

✓ Transitions

✓ Animations

✓ Speaker Notes

Task 5: Microsoft Outlook Project (10 Marks)

Create an email.

Subject:

Invitation to Digital Literacy Workshop

Include:

- Greeting
- Workshop details
- Venue
- Date
- Time
- Closing

Attach:

- Word report
- Excel budget
- PowerPoint presentation

Task 6: OneDrive Project (5 Marks)

Upload:

- Word document
- Excel workbook
- PowerPoint presentation

Create folders.

Share the project folder with your instructor using **view-only** permission.

Task 7: Microsoft Teams Project (5 Marks)

Join your class Team.

Upload your presentation.

Create a meeting.

Share your screen.

Participate in discussion.

Task 8: AI and Microsoft Copilot (10 Marks)

Use AI to:

- Draft a report outline.
- Suggest Excel formulas.
- Generate presentation ideas.
- Draft the invitation email.

Review and edit the AI-generated content before submission.

Task 9: Cybersecurity Checklist (10 Marks)

Complete the following:

□ Strong password created

□ MFA enabled

□ Antivirus updated

□ Files backed up

□ Safe browsing practices followed

□ Email checked for phishing

□ Device locked when unattended

□ Software updated

□ Privacy settings reviewed

□ Files synchronized with OneDrive

Part II: Practical Examination

Time:

2 Hours

Total:

100 Marks

Question 1

Create the following letter in Microsoft Word.

(20 Marks)

Question 2

Prepare the Excel worksheet provided.

Use formulas.

Create charts.

(20 Marks)

Question 3

Prepare a six-slide PowerPoint presentation.

(20 Marks)

Question 4

Send an Outlook email with an attachment.

(10 Marks)

Question 5

Upload files to OneDrive.

(10 Marks)

Question 6

Join a Microsoft Teams meeting.

(10 Marks)

Question 7

Use AI responsibly to improve a document.

(10 Marks)

Part III: Mock Theory Examination

Multiple Choice Questions

1.

Which application is used to create documents?

A. Excel

B. PowerPoint

C. Word

D. Outlook

Answer: C

2.

Which application is used for spreadsheets?

A. Word

B. Excel

C. Teams

D. Outlook

Answer: B

3.

Which application is used for presentations?

A. Word

B. Excel

C. Outlook

D. PowerPoint

Answer: D

4.

Which Microsoft application manages email?

A. Teams

B. Outlook

C. Word

D. Excel

Answer: B

5.

Which cloud service stores Microsoft files online?

A. Dropbox

B. OneDrive

C. Gmail

D. Chrome

Answer: B

6.

Which of the following is malware?

A. Keyboard

B. Virus

C. Monitor

D. Printer

Answer: B

7.

What does MFA stand for?

A. Multiple File Access

B. Multi-Factor Authentication

C. Microsoft File Application

D. Managed Folder Access

Answer: B

8.

Which symbol starts an Excel formula?

A. +

B. *

C. =

D. #

Answer: C

9.

Which shortcut saves a document?

A. Ctrl + P

B. Ctrl + S

C. Ctrl + O

D. Ctrl + X

Answer: B

10.

Which AI tool assists users in Microsoft 365?

A. Paint

B. Copilot

C. Notepad

D. Calculator

Answer: B

Part IV: Short Answer Questions

1. Define a computer.
2. What is software?
3. Explain the difference between RAM and ROM.
4. Name four input devices.
5. Name four output devices.
6. Explain cloud computing.
7. Define Artificial Intelligence.
8. What is phishing?
9. Explain cybersecurity.
10. Define digital citizenship.

Part V: Practical Projects

Project 1

Create a Student Registration System.
Use:

- Word
- Excel
- PowerPoint

Project 2

Design a Business Budget.
Use formulas.
Create charts.
Generate reports.

Project 3

Prepare a School Orientation Presentation.
Include:
Pictures
Icons
Animations
Videos

Project 4

Create a Personal Portfolio.

Include:

- Resume (CV)
- Certificates
- Photos
- Projects
- References

Store it in OneDrive.

Course Revision Checklist

Windows

✓ File Management
✓ Control Panel
✓ Settings
✓ Shortcuts
✓ Printing

Word

✓ Formatting
✓ Tables
✓ Pictures
✓ SmartArt
✓ Headers
✓ Footers
✓ Mail Merge
✓ Styles

Excel

✓ Functions
✓ Charts
✓ Conditional Formatting
✓ Sorting
✓ Filtering
✓ Printing

PowerPoint

✓ Themes
✓ Layouts
✓ Animations
✓ Transitions
✓ Presenter View

Outlook

✓ Email
✓ Calendar
✓ Tasks

✓ Contacts

OneDrive

✓ Upload
✓ Download
✓ Share
✓ Sync

Teams

✓ Meetings
✓ Chat
✓ Screen Sharing
✓ Collaboration

Artificial Intelligence

✓ Prompts
✓ Copilot
✓ Ethics
✓ Productivity

Cybersecurity

✓ Passwords
✓ MFA
✓ Antivirus
✓ Phishing
✓ Backup
✓ Digital Citizenship

Final Practical Assessment Rubric

Skill Area	Marks
Windows	10
Microsoft Word	20
Microsoft Excel	20
Microsoft PowerPoint	15
Microsoft Outlook	10
OneDrive	5
Microsoft Teams	5
Artificial Intelligence	5
Cybersecurity	10
Professional Presentation	10
Total	**110**

Note: If you require a total score of 100 marks, you can proportionally adjust the weighting or reduce one or more sections.

Final Course Outcomes

After successfully completing this manual, you should be able to:

✓ Operate a Windows computer confidently.
✓ Manage files and folders efficiently.
✓ Create professional documents in Microsoft Word.
✓ Analyze data and create reports in Microsoft Excel.
✓ Design engaging presentations in Microsoft PowerPoint.
✓ Communicate professionally using Microsoft Outlook.
✓ Store, synchronize, and share files using OneDrive.

✓ Collaborate effectively using Microsoft Teams.
✓ Use AI tools such as Microsoft Copilot responsibly and effectively.
✓ Protect computers, data, and online accounts using cybersecurity best practices.
✓ Apply digital skills confidently in academic, business, and workplace environments.

Glossary of Key Terms

Term	Definition
Algorithm	A step-by-step procedure for solving a problem.
Backup	A copy of data kept for recovery.
Cell	The intersection of a row and column in Excel.
Cloud Computing	Delivery of computing services over the Internet.
Copilot	Microsoft's AI assistant for Microsoft 365.
Firewall	Software or hardware that filters network traffic.
Formula	An expression used to perform calculations in Excel.
Malware	Malicious software designed to damage or disrupt systems.
Multi-Factor Authentication (MFA)	An authentication method requiring two or more verification factors.
Phishing	A fraudulent attempt to obtain sensitive information by pretending to be a trusted entity.
Spreadsheet	A worksheet used to organize and calculate data.
Word Processing	The creation, editing, formatting, and printing of text documents.

Congratulations!

You have completed the **Computer Basics and Microsoft Office Student Manual (Comprehensive Edition)**.

This manual has covered:

- Computer Fundamentals
- Windows Operating System
- File Management
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Outlook
- OneDrive and Cloud Computing
- Microsoft Teams
- Artificial Intelligence and Microsoft Copilot
- Cybersecurity and Digital Citizenship
- Integrated Projects and Final Assessment