CHAPTER 1 | USE WINDOWS

Sesson 1 | theory - What is a COMPUTER?

Sesson 2 | theory - First steps on window

Sesson 1 | THEORY - WHAT IS A COMPUTER?

✓ What is a computer, what is a hardware

Computer is an electronic machine that performs,processes,calculations and operation base on instuctions proveded by a software.

Hardware is any part of computer that can be seen and touched, such as deyboard, mouse, screen, hard disk, printer, and so on.

✓ How to login and logout on Windows

+How to login: Click on the start button and then go to setting>Account>Your account. Password insteed, input your Microsoft account password and click “next”.

+How to logout: select start, then on the left side of the start menu, choose the accounts icon (or picture) and then select signout.

✓ How to change a password

+Enter the magec keys: CTRL+ALT+Delete

+Select: change password

+Change password.

✓ What are the 5 mouse actions

+left click : select object

+right click : open pop-up menus

+double left click : open file, applications

+Drag : move and select object

+scroll : scroll on a document.

Sesson 2 | THEORY - FIRST STEP OF WINDOWS

✓What is an **Operating System** ?

An operating system is a program that allows you to interact with your computer.

✓Use **Windows basic features** :

+ How to use Window task bar

The **taskbar** has many purposes

quick short cut, current running applications, search bar, notifications.

+ What is an application?

An application is a software that allows you to complete tasks on your computer.

✓What is a **window ?**

When we open an application, this app appears in a **new window.**

CHAPTER 2 | FILES AND FOLDERS

Sesson 1 | THEORY - FILES AND FOLDERS

✓ What is a file, a folder

+ A file is a set of data representing a specific type of information.

+ A folder is a container of files, A folder can also contain other folders.

✓ File attributes

Type of file : Images, sound, video, application,document...

+ A file has a name

- A name

- An extension

- A size

✓ Understand the window drives (C: D:)

File location

File and folders are stored in the hard drive of your computer.

Hard drives in Windows are represented with a letter (C: or D:)

Sesson 2 | PRACTICE - FILE EXPLORER

File Explorer is an application to navigate and manage files and folders on Windows.

Windows + E key is an easy way to open File Explorer

File Explorer components

- The QUICK ACCESS AREA allow you to pin your favorite folder.

  + Right click on the folder to PIN it to the Quick access
  + TIPS: You should hide the recent files in the QUICK ACCESS – TO do it disable the option in the options.

- The NAVIGATION AREA allow you to see the content of each drive of your computer.
  + A drive is composed of folders and sub folders

- The SEARCH AREA allow you to search for file or folders with key words
  + Search for a file or folder by typing text on this zone

- The FILE AREA

  You can:

  o Hide or display some columns

  o Sort files by name, date modified.

  o Group files with a criteria

- The DOWNLOAD FOLDER

  The download folder contains all the files you will download from internet.

Hierarchy of folders

- A file is always located on a specific drive

- A file is always located on a parent

- Parent folder can also have a parent folder

The recycle bin

- The recycle bin contains file you have deleted.

Sesson 3 | THEORY - FILE ORGANIZATION

✓ Why you should organize your data on computer ?

+ you can find easily your work

+ you can easy to find your files that you want

✓ **Organize your files following 3 simple rules**

+ RULE 1: Clean up every week temporary folders
  - Desktop
  - Download
  - Bin
+ RULE 2: Create 2 folders on Desktop
  - One folder to store your all PNC courses
  - One folder to store your Personal data
+ RULE 4 : On each session folder, also separate your code, the correction etc.
  - Create sub folders on each sessions...

CHAPTER 3 | INTERNET

Sesson 1 | THEORY - WHAT IS INTERNET?
Sesson 2 | THEORY - WHAT IS BROWSER?
Sesson 3 | THEORY - WHAT IS SEARCH ENGINE?
Sesson 4 | E-MAIL - (Gmail and Handout)

Sesson 1 | THEORY - WHAT IS INTERNET?

✓ **History of Internet**

- **Internet** was invented by**: Bob Kahn**(1938-now) and **Vint Cerf**(1943-now)

- The Internet as we know it today first started being developed in the late **1960s** in **California** in the **United States.**

- The Internet was first **invented** for military purposes, and then expanded to the purpose of communication among scientists.

- Network is the connection between two or more computers and can communicate with each other.

✓ What is Internet

- The Internet: sometimes called simply "**the Net**," is a worldwide system of **computer networks**

✓ What is a web site, a web page

- A website: a **collection** of many **webpages** which are grouped together that belong to one domain or owner.

- A webpage: a **single document** which contains text, images, video, audio, and other media.

  + **Website** is a **book.**

  + **Webpage** is a **page in a book**

✓ What is a Web Browser

- **A web browser** is a software application that help you to **access** and **view websites** on the **internet.**

✓ What is a Web Address

- **A website address** refers to the name that points to a location where the website is hosted over the internet. It is also known as the URL (uniform resource locator).

➢ Example:

✓ Our PN's **website address** is:
http://www.passerellesnumeriques.org/

✓ Our school webpage address is:
https://www.passerellesnumeriques.org/en/our-actions/cambodia/

Search Engine

Application dedicated to **search** information on World Wide Web

➢ Example: **Bing**, **Google**,**DuckDuckGo**

Sesson 2 | THEORY – WHAT IS BROWSER?

✓ Web browser

A browser is a tool to help you access resources through www on the Internet. There are many browsers but we focus on Google Chrome.

- Example: **Google Chrome, Mozilla Firefox, Internet Explorer, Safari, Vivaldi, Microsoft edge...**

✓ Google Chrome

Google Chrome browser is a free web browser used for accessing the internet and running web-based applications.

✓ Using tabs

a tab is a **clickable** area at the top of a window

that shows another **page** or area on **Web browser**.

- Shortcut key : 

Use to close the current tab
- Shortcut key : 

Use to open the new tab

✓ Address bar and bookmark

- Address Bar is somewhere you can **entering** the

address of the **webpage** or key words that you want to search on the **Web Browser.**

- **Bookmark Bar** is somewhere on the **web browser** where you can easily **access** to your favorite **web pages.**

➢ **You also can organize your favorite web pages into the folder on the bookmark bar.**

✓ Shortcut key

1. **Open new tab**
2. **Close tab : CTRL + T**
3. **Reopen closed tab : CTRL +W**
4. **Reload : CTRL + SHIFT + T**
5. **Zoom : F5**
6. **Navigate on tabs : CTRL + Tap>**
7. **View history: CTRL + H**
8. **View Download: CTRL +J**
9. **View Download: CTRL +F**
10. **Close Browser: CTRL +SHIFT +W**

Sesson 3 | THEORY – WHAT IS SEARCH ENGINE?

✓What is search Engine?

- **Search engine** is a **software system** that is designed to search for information on the **World Wide Web.**

- Search Engine is the **tool** (**software system**) that is designed to search for information (text, picture, video, sound...) on **the World Wide Web**. There are a lot of search engine companies but the most popular are: Google, Bing, Yahoo, Ask.com

✓How to search on internet?

1.Go to a **search engine**. A **search engine** is a **website** that coll ects and organizes information on the **internet** and makes it avail able for searching. Search ...
2.Type what you're looking for into the **search bar.** You'll find the **search bar** at the top of most **search engines**. You can enter a si ngle word, a sentence, a ...
3.Press the Enter or **Return key** to run your search. This displays your search results in a list.

✓How to download things from internet?

1. **Most files**: Click the **download link**. Or, right-click on the file and choose **Save as**.
2. **Images**: **Right-click** on the image and choose **Save Image As.**
3. **Videos**: Point to the video. **Click Download** . ...
4. **PDFs**: **Right-click** on the file and choose **Save Link As.**
5. **Webpages**: At the top right, click More. **More Tools**

✓ How search engine work ?

- **Search engines work** by **crawling hundreds of billions of pages using their own web crawlers**.
- These web crawlers are commonly referred to as search engine bots or spiders.

- **A search engine** navigates the web by **downloading web pages** and **following links** on these pages to discover new pages that have been made available.

Sesson 4 | E-MAIL

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❖ There are many **free companies** that provide **Email** to **customer**. There are the best **Email provider:**

- **Other**
- **Yahoo**
- **Gmail**
- **Hotmail**
- **AOL**
- **Comcast**

✓What is Email?

E-mail(Electronic Mail) is defined as the transmission of messages over communication net work.

✓How does an email work?

1. You login to **your email** (webmail or mobile device or desktop client).
2. Open the **composer** and specify the subject, type in the **email content**, choose the recipients and **draft the email**.
3. You hit send and send the **email**.

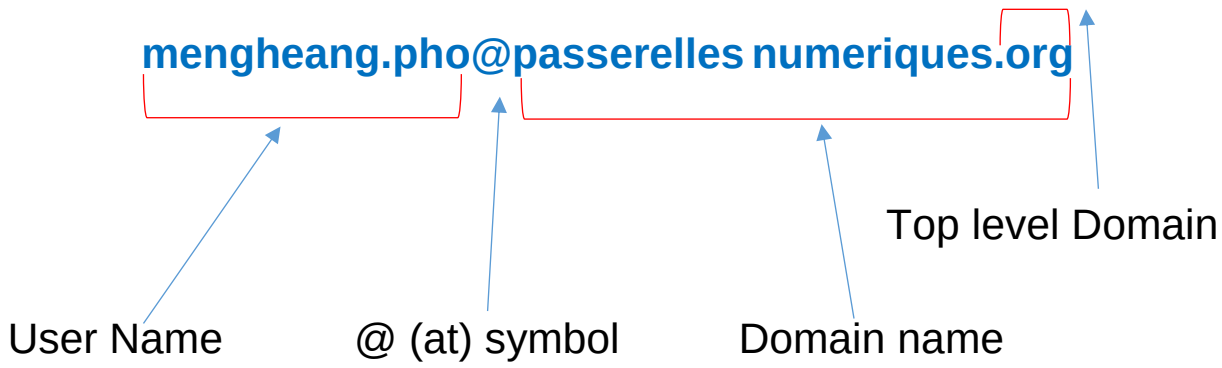
✓How does an email work?

1. Writing an **email** can be as simple as typing a **message**
2. You can use **text formatting**
3. File attachment
4. And **customize** your signature

✓How to sending and responding to email (Gmail)

1. On your computer, go to **Gmail.**
2. Open the **message.**
3. Below the message, click **Reply** or **Reply to all**.
4. Click **Send**. If you click **Send +** , the conversation will also **be archived**, or **removed** from your inbox until someone else replies. **Learn more** about archiving.

Email Address Structure



When you see your friends' email, reply to them what you want to say

1. Response to only one person that sent you With your dream country's photo.

2. Response to all people that have in cc with an image of your province.

CHAPTER 4 | COMPUTER HARDWARE

Sesson 1 | COMPUTER FUNCTIONS

✓ The 4 function of a computer

Computer accept data from an Input device and processes into useful information which is display on it Output device. These tasks are all related to the four basic computer operations:

- Data Input (Use Input device)
- Data Processing (Use processor / CPU)
- Storage/Memory (RAM/ Storage device)
- Output information (Use Output device)

✓ Computer hardware

➢ **Hardware** Physical components, like monitor, system unit, mouse, keyboard…

➢ **Software** Set of instructions that tell the computer what to do and how to do it. (Operating system, applications)

Desktop hardware :

- Speaker
- Monitor
- Mouse
- Keyboard

Case :

- Power Supply
- DVD Rom
- Mainboard
- CPU
- CPU Fan
- RAM
- VGA Card
- Sound Card
- Hard disk
- Reader-all-in-one Internal

✓ How Computer Operate

❖Basic Operations

➢ **Input device** is any hardware device that sends data to a computer, allowing you to interact with and control it.

- Remote Control
- Touch screen
- Scanner

- Keyboard
- Web cam
- Microphone/Mic
- Mouse

➢ **Processing devices** are used in processing the data, using the program instructions. They perform different calculations and also control the hardware devices.

- RAM
- Motherboard
- Sound card
- CPU/Processor
- Expansion slots
- Network card

➢ **Storage device** include any device which will store data until is needed for processing. This can include temporary and long-term storage devices.

- Hard disk
- External HDD
- USB
- SSD M-2
- RAM
- Memory card
- Tape media
- CD / DVD

➢ **Output device** is anything that comes out of a computer. Output devices can be display screens, loudspeakers, printers and etc.

- Display screen/Monitor
- Plotter
- Printer
- Projector
- Speaker
- Headset

Sesson 2 | Motherboard and CPU

✓ What is Motherboard

❖ The motherboard is the most important part of a PC that enables the integration and control of all other components and devices in a complete computer system.

❖ Motherboard or Mainboard or System Board

Motherboard in short

- Motherboard is a Circuit Board
- It's a Backbone of the computer
- It integrates all Hardware into one system
- Allow all components to receive power and communicate together

✓ Components that connected to Motherboard

- RAM Slots
- CMOS battery

- Northbridge
- SATA connector
- Expansion Slots
- Port connectors
- Southbridge
- CPU Sockets

- Hard Disk
- DVD ROM
- Power Supply
- RAM
- Processor (CPU)
- Video/VGA Card
- Wireless Card

Type of Motherboard

- ITX (6.7”x6.7”)
- M-ATX (9.6”x9.6”)
- ATX (12”x9.6”)
- E-ATX (12”x13”)

✓ What is CPU?

It does all decisions, calculations all processing in Computer. Example, even you typing or you move your mouse, all process need CPU make decisions.

CPU in short

- CPU is the “brain”of Computer system

- CPU stands for Central Processing Unit
- It runs program instructions
- Basically the faster the CPU, the faster computer will perform

✓ **How does CPU work?**