**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 interactwith 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 taskson 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

# Sesson 2 | PRACTICE - FILE EXPLORER

# 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

# Open new tab

# Close tab : CTRL + T

# Reopen closed tab : CTRL +W

# Reload : CTRL + SHIFT + T

# Zoom : F5

# Navigate on tabs : CTRL + Tap>

# View history: CTRL + H

# View Download: CTRL +J

# 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 collects and organizes information on the **internet** and makes it available 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 single 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**

**mengheang.pho@passerelles** **numeriques.org**

Top level Domain

User Name @ (at) symbol Domain name

**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?