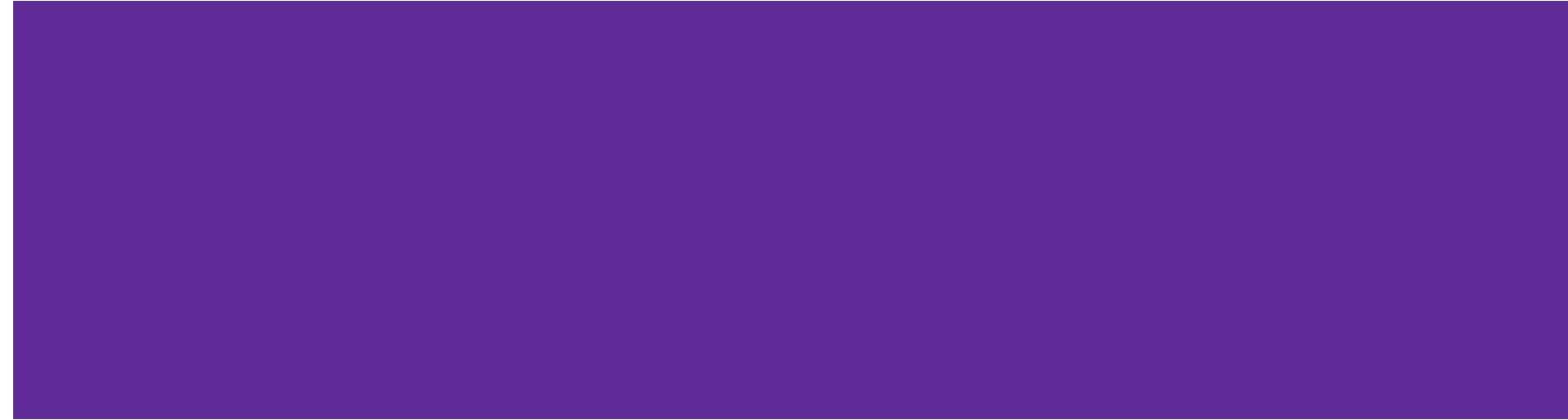


Practical Work 01

Access to Linux (Ubuntu) Server with Basic Command Line



Instruction

1. Install Linux (Ubuntu)
2. Basic Command (review)
3. Example Command
4. Assignment W01-1

Install Linux (Ubuntu)

There are **4 ways** of using Ubuntu:

1. Make it as your main OS on your computer
 - a. Go to <https://www.ubuntu.com/download>
2. Using VirtualBox or VMware on your Windows or Mac OS
 - a. Go to <https://www.virtualbox.org/wiki/Download>
3. Using Windows Subsystem Linux (instruction in next slide)
4. Access to Ubuntu Server
 - a. By using command line “SSH” which is a full form of Secure Shell

Windows Subsystem Linux

1. Install Ubuntu in your Windows 11 from Microsoft Store
 - a. <https://documentation.ubuntu.com/wsl/stable/howto/install-ubuntu-wsl2/#method-3-install-from-the-microsoft-store>
2. Install Ubuntu in your Windows 10 from Microsoft Store
 - a. Requirement
 - i. Windows 10 version 1607+
 - ii. Enable “**Windows Subsystem for Linux**” by going to menu and search “Windows PowerShell” and right click “Run as administrator”. Then enter below command
 - iii. `Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Windows-Subsystem-Linux`
 - b. Go to “Microsoft Store”
 - c. Search “Ubuntu” and click on “Ubuntu 24.04”
 - d. Click on “Get”

Basic Command (review)

- `pwd` : show your working directory
- `cd ..` : change directory to parent directory
- `cd directory_name` : change directory to child directory
- `cd` or `cd ~` : change directory to HOME directory
- `cd /home/coca/tmp` : change directory to a specific path location
- `mv oldname newname` : move/rename file/directory
- `cp src.txt dest.txt`: copy file "src.txt" to another file "dest.txt"

Basic Command (review)

- `ls` : list all files and directories of current directory
- `ls directory_name` : list all files and directories of a specified directory
- `cat filename` : display contents of a file
- `rm filename` : remove a file
- `mkdir dir_name` : create new empty directory
- `touch filename` : create new empty file

Basic Command (VIM)

- **vim filename.txt** : edit content of a file
 - a. ESC > :q > ENTER : to quit (exit) from vim
 - b. ESC > :q! > ENTER : to force quit without saving from vim
 - c. ESC > :w > ENTER : to write (save) edited content in vim
 - d. ESC > :wq > ENTER : to write and quite (save and exit) from vim
 - e. ESC > i : to edit and writing text in vim
 - f. ESC : to go to default mode in vim
 - g. ARROW KEYS : to navigate cursor around in vim

Using `man` and `--help`

- `man <command>` : detailed **manual** page
 - a. Example: `man ls`
- `<command> --help` : quick summary of options
 - a. Example: `ls --help`

Good Habit :

- Check `man` or `--help` first before searching online

Example W01-1

1. *(Work on your local machine from option 1 to 3 of your choice and open terminal)*
2. Show all files and directories in home directory by using command **"ls"**
3. Create a new directory in **home directory**, named **"hello"** by using **"mkdir"**
4. Go to directory **"hello"** by using command **"cd"**
5. Create a new file name **"your.full.name.txt"** inside directory **"hello"**
 - a. NOTE: **"your.full.name"** is your email before @ symbol
 - b. For example: **kannika.kong@cad.t.edu.kh** \Rightarrow **"kannika.kong"**
6. Show all files and directories in this **"hello"** directory
7. Show your current directory by using command **"pwd"**

Answer W01-1

1. Show all files and directories in home directory by using `ls`
➤ `ls ~`
2. Create a new directory in home directory, named `hello` by using `mkdir`
➤ `cd ~`
➤ `mkdir hello`
3. Go go to directory `hello` by using `cd`
➤ `cd hello`
4. Create a new file name `your.full.name.txt` inside directory `hello`
➤ `touch kannika.kong.txt`
5. Show all files and directories in this `hello` directory
➤ `ls`
6. Show your currencies directory by using command `pwd`
➤ `pwd`

Example W01-2

1. Edit content inside file "**your.full.name.txt**" and write text:
 - a. I Love Command Line!
2. Save and exit
3. Display content inside "your.full.name.txt"

Answer W01-2

1. Open terminal of your local Linux setup from the previous Example W01, and change the current directory to hello directory:
 - Enter `"cd ~/hello"`
2. Edit content inside file `"your.full.name.txt"` and write text `"I Love Command Line!"`
 - Enter `"vim kannika.kong.txt"`
 - Type `"ESC"`, then type `"i"`
 - Write text `"I Love Command Line!"`
3. Save and exit
 - Type `"ESC"`, then type `":wq"`, then hit `"ENTER"`
4. Display content inside `"your.full.name.txt"`
 - Type `"cat kannika.kong.txt"`

Try Yourself on Remote Server

1. Enter command: (change **group01** to your real group number 1, 2, 3 or 4)
 - `ssh group01@os.cammob.ovh`
 - The password is : `group01@student2026`
2. Check your current working directory by using command "**pwd**"
3. Show all files and directories in servers by using command "**ls**"
4. Go inside directory "**public_html**"
5. Create a directory "**your.full.name**" inside that directory "**public_html**"
 - "your.full.name" is your email before @ symbol (for example **kannika.kong**@cadt.edu.kh)
6. Create a file "**hello.txt**" inside your directory "**your.full.name**"
7. Write content inside "**hello.txt**" by using "**vim**" with below text and save it
 - "**I Love Command Line**"
8. Go to browser enter
 - `http://group01.os.cammob.ovh/your.full.name/hello.txt`
 - For example:
 - i. `http://group01.os.cammob.ovh/kannika.kong/hello.txt`

Assignment W01-1

1. Access to remote server "`ssh group01@os.cammob.ovh`"
2. Go to directory "`public_html/your.full.name/`" by using command "`cd`"
3. Create file name "`YOUR_STUDENT_ID.html`" by using command "`touch`"
4. Write text below inside this file "`YOUR_STUDENT_ID.html`" by using "`vim`" or "`nano`"
 - "`<h1>My name is your.full.name. My Student ID is YOUR_STUDENT_ID</h1>`"
 - Write down your answer below your info above inside the same file "`YOUR_STUDENT_ID.html`" with tag `<p>`
 - i. What is one thing you learned today in this lab that you didn't know before?
 - **Save it**
 - Go to browser enter this in address bar:
 - i. "`http://group01.os.cammob.ovh/your.full.name/YOUR_STUDENT_ID.html`"
 1. For example: "`http://group01.os.cammob.ovh/kannika.kong/IDTB090119.html`"
5. Create these directories inside your directory "`your.full.name`":
 - lab01, lab02, lab03, lab04, lab05, lab06, lab07, lab08, lab09, lab10
 - Go to browser enter this in address bar:
 - i. "`http://group01.os.cammob.ovh/your.full.name/`"

Submit Your Assignment W01-1

1. Screenshot of your command lines
2. Screenshot of your browser result including address bar for both
 - a. `"http://group01.os.cammob.ovh/your.full.name/YOUR_STUDENT_ID.html"`
 - b. `"http://group01.os.cammob.ovh/your.full.name/"`
3. Submit your work to eLearning