

Lab N°01 : Introduction to Operating Systems

Objective: Basic Linux / UNIX Commands

We are going to work under UNIX/ LINUX, using a **Terminal**.

- Start by opening a Terminal.
- A command prompt will appear.
- We are going to type a few commands into it (all commands end with enter).
- For each command you don't know, consult the online manual by : **man command_name**.

Exercise I.1: (System Info)

- Q1) What system is installed?
- Q2) What distribution is installed?
- Q3) Who are the current system users?
- Q4) Open a new Terminal using another account.
- Q5) Close this Terminal.

Exercise I.2: (The man Command)

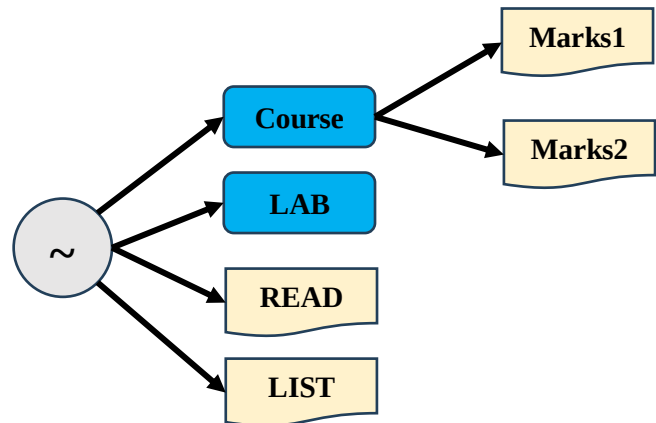
- Q1) Test the man command to get help on **man**.
- Q2) Which commands can be documented in **man**?

Exercise I.3: (Files and Directories)

- Q1) Create in your home directory a directory **OS1**.
- Q2) Navigate to the directory **OS1** and create inside an empty file with the filename **File1.txt**.
 - Do not use an editor application to create the file, but a command line command.
- Q3) Check the file size of the file **File1.txt**.
- Q4) Change the modification time of the file **File1.txt** to your birth date.
- Q5) Create a new file in the shell **File2.txt** and insert any text with more than just a single line as content into the new file.
 - Do not use an editor application to insert the text into the file, but a command line command.
- Q6) Print out the first line of the file **File2.txt** in the shell.
- Q7) Append the content of **File2.txt** to **File1.txt**.
 - Do not use an editor application, but a command line command.
- Q8) Create in your home directory, a directory with the directory name **OS1_new_semester**.
- Q9) Copy the files **File1.txt** and **File2.txt** from the directory **OS1** into the directory **OS1_new_semester**.
- Q10) Erase the directory **OS1**.

Exercise I.4: (Creations, Deletions and Access Rights)

- Q1) Using commands, create the tree structure shown below and move around it.
- Q2) By default, what are the access rights for files and directories created?
- Q3) Add write rights for the group to the **Marks1** file.
- Q4) Change the access rights of the **LIST** file to **521**.
- Q5) Compress the **Course** directory as a **tar.gz** archive using the **tar** command, then delete the **Course** directory.
- Q6) Recreate the **Course** directory by decompressing the previous archive in your directory.
- Q7) Then, delete all created directories and files.

**Exercise I.5: (User Management)**

- Q1) Create four users **user1**, **user2**, **user3** and **user4**?
- Q2) Set an initial password for **user1**.
- Q3) Verify the creation of the **user1** account.
- Q4) Modify the **home** directory of **user1** to **/home/users/user1**.
- Q5) Change the default shell for **user1** to **/bin/bash**.
- Q6) Verify the changes made to the **user1** account.
- Q7) Force **user1** to change the password on the next login.
- Q8) Set password aging for **user1** to expire in 30 days.
- Q9) Verify the password-related changes for **user1**.
- Q10) Delete the user account **user1**.
- Q11) Ensure that the **home** directory and files associated with **user1** are removed.
- Q12) Create two groups, **staff1** and **staff2**?
- Q13) Put users in groups:
- The **user1** and **user2** are members of the **staff1** group.
 - The **user3** and **user4** are members of the **staff2** group.
 - The **user2** is also a member of the **staff2** group.
 - The **user4** is also a member of the **staff1** group.
- Q14) Vérifier les membres du groupe **staff2**?
- Q15) Remove **user2** from the **staff2** group.
- Q16) Delete the **staff2** group.