Name: **Mussab Bin Shahid**
Sap-Id: 2024
Program: BSCS
LAB#3: **Operating System**

Exercise 1

Try to change the directory from home to its sub directory like downloads etc

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ pwd
/home/ubuntu
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd Downloads/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/Downloads$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd OperatingSystem/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OperatingSystem$
```

Exercise 2

Try to change the directory from its sub directory to parent directory.

Using (cd ..)

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd CompilerConstruction
ubuntu@ubuntu-HP-EliteBook-820-G2:~/CompilerConstruction$ ls
1.txt                        mussab
hello.c.save                 Mussab_2024_Compiler_Construction_Assignment#1.txt
ibrahim-CC-Assignment1.txt   Mussab BSCS 2024 Compiler Construction Assignment 1
lecture                      mussab.c
lecture1.txt.save            Projects
ubuntu@ubuntu-HP-EliteBook-820-G2:~/CompilerConstruction$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Using (cd ~)

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd CompilerConstruction/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/CompilerConstruction$ ls
1.txt                        mussab
hello.c.save                 Mussab_2024_Compiler_Construction_Assignment#1.txt
ibrahim-CC-Assignment1.txt   Mussab BSCS 2024 Compiler Construction Assignment 1
lecture                      mussab.c
lecture1.txt.save            Projects
ubuntu@ubuntu-HP-EliteBook-820-G2:~/CompilerConstruction$ cd ~
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Exercise 3

Try to use the cd commands and move to root directory from and then get back to home directory.

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd /
ubuntu@ubuntu-HP-EliteBook-820-G2:/$ pwd
/
ubuntu@ubuntu-HP-EliteBook-820-G2:/$ cd ~
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ pwd
/home/ubuntu
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Exercise 4

Make directories by using only one command.

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ mkdir OS
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ ls
AdvancedProgramming                 nano.save
assignment.txt                      OperatingSystem
CompilerConstruction                OS
Desktop                             OS_Lab
DifferentialEquation                Pictures
Documents                           Public
Downloads                           script.h
eclipse-workspace                   snap
examples.desktop                    SoftwareEngineering
file1.txt                           Templates
google-chrome-stable_current_amd64.deb  ubuntu-16.04.7-desktop-amd64.iso.gz
Lec#1.pptx                          Ubuntubasics
Lec#2.pptx                          Videos
Music                               Web-development
MyJavaDirectory
```

Exercise 5

After you move inside OS directory. What are you feeling differences between two prompts?

The difference is that before going to OS directory we were at home then after going towards OS we have moved to a subdirectory from our home directory.

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ mkdir OS
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ ls
AdvancedProgramming                     MyJavaDirectory
assignment.txt                          nano.save
books                                   OperatingSystem
CompilerConstruction                    OS
Desktop                                 OS_Lab
DifferentialEquation                    Pictures
Documents                               Public
Downloads                               script.h
eclipse-workspace                       snap
examples.desktop                        SoftwareEngineering
file1.txt                               Templates
google-chrome-stable_current_amd64.deb  ubuntu-16.04.7-desktop-amd64.iso.gz
Lec#1.pptx                              Ubuntubasics
Lec#2.pptx                              Videos
Music                                   Web-development
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd books
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$
```

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ pwd
/home/ubuntu
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Exercise 6

Create other directory LAB1 under OS, and move to LAB1 directory.

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd OS
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OS$ mkdir LAB1
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OS$ cd LAB1
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OS/LAB1$ cd ~
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ pwd
/home/ubuntu
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Exercise 7

Go to Home directory directly. without (cd ..) command

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd OS/LAB1/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OS/LAB1$ cd ~
ubuntu@ubuntu-HP-EliteBook-820-G2:~$
```

Exercise 8

Now you are in your home directory. How will you go directly to LAB1 directory?

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd OS/LAB1/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/OS/LAB1$ █
```

Exercise 9

Make the following directory hierarchy:

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ mkdir books
ubuntu@ubuntu-HP-EliteBook-820-G2:~$ cd books
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ mkdir math
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ mkdir physics
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ mkdir computer
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ ls
computer  math  physics
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd math
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ mkdir trignometry
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ mkdir calculus
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ ls
calculus  trignometry
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd physics
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ mkdir quantum
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ mkdir classical
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ mkdir nuclear
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ ls
classical  nuclear  quantum
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ █
```

Exercise 10

You are in books directory, from here try to remove sub-directory quantum under the directory physics. ☻ Now move to directory computer, from here remove sub-directory calculus under the directory math. ☻ Now create again both removed directories.

```
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ rmdir physics/quantum/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd physics
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ ls
classical  nuclear
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd computer
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/computer$ rmdir ../math/calculus/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/computer$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd math
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ ls
trignometry
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd math
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ mkdir calculus
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ ls
calculus  trignometry
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/math$ cd ..
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ mkdir physics/quantum
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books$ cd physics/
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$ ls
classical  nuclear  quantum
ubuntu@ubuntu-HP-EliteBook-820-G2:~/books/physics$
```