

Name: Phạm Mai Dung

ID: 19520477

Class: IT007.L21

## OPERATING SYSTEM LAB 1'S REPORT

### SUMMARY

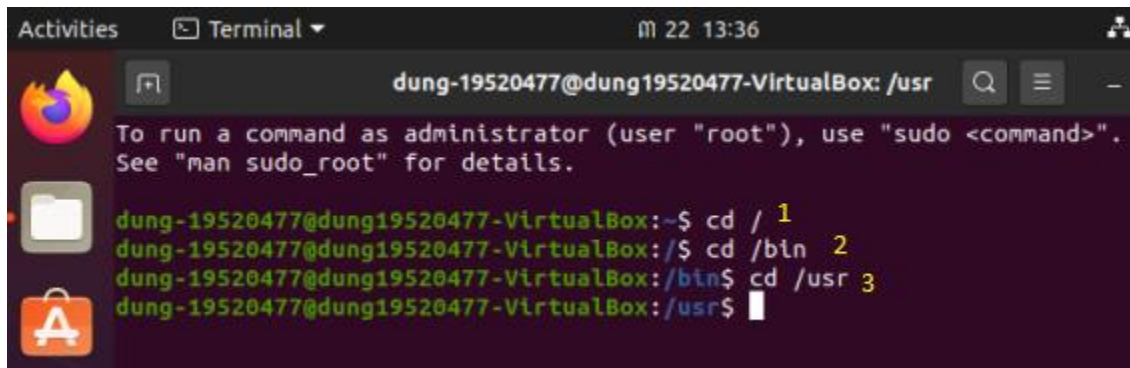
Task		Status	Page
Section 1.5	Task name 1	Done	2
	Task name 2	Done	2
	Task name 3	Done	3
	Task name 4	Done	4
	Task name 5	Done	4
	Task name 6	Done	4
	Task name 7	Done	5
...	...		
	...		

Self-scores:

*\*Note: Export file to **PDF** and name the file by following format:  
**LAB X – <Student ID>.pdf***

## Section 1.5

### 1. Task name 1



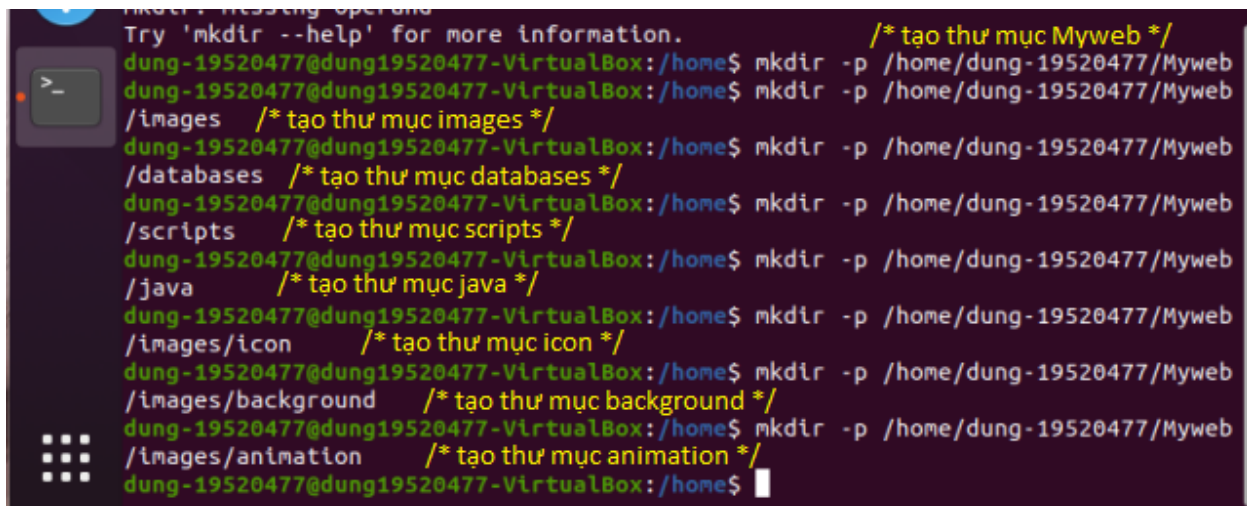
The screenshot shows a terminal window titled 'dung-19520477@dung19520477-VirtualBox: /usr'. It displays a series of commands to navigate the file system: `cd /`, `cd /bin`, and `cd /usr`. The prompt changes from `~$` to `/bin$` and finally to `/usr$`. A message at the top explains that `sudo` is used to run commands as administrator.

```
Activities Terminal M 22 13:36
dung-19520477@dung19520477-VirtualBox: /usr
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
dung-19520477@dung19520477-VirtualBox:~$ cd / 1
dung-19520477@dung19520477-VirtualBox:/$ cd /bin 2
dung-19520477@dung19520477-VirtualBox:/bin$ cd /usr 3
dung-19520477@dung19520477-VirtualBox:/usr$
```

Thực hiện chuyển thư mục

- 1 – chuyển về thư mục gốc.
- 2 – chuyển đến thư mục /bin.
- 3 – chuyển đến thư mục người dùng.

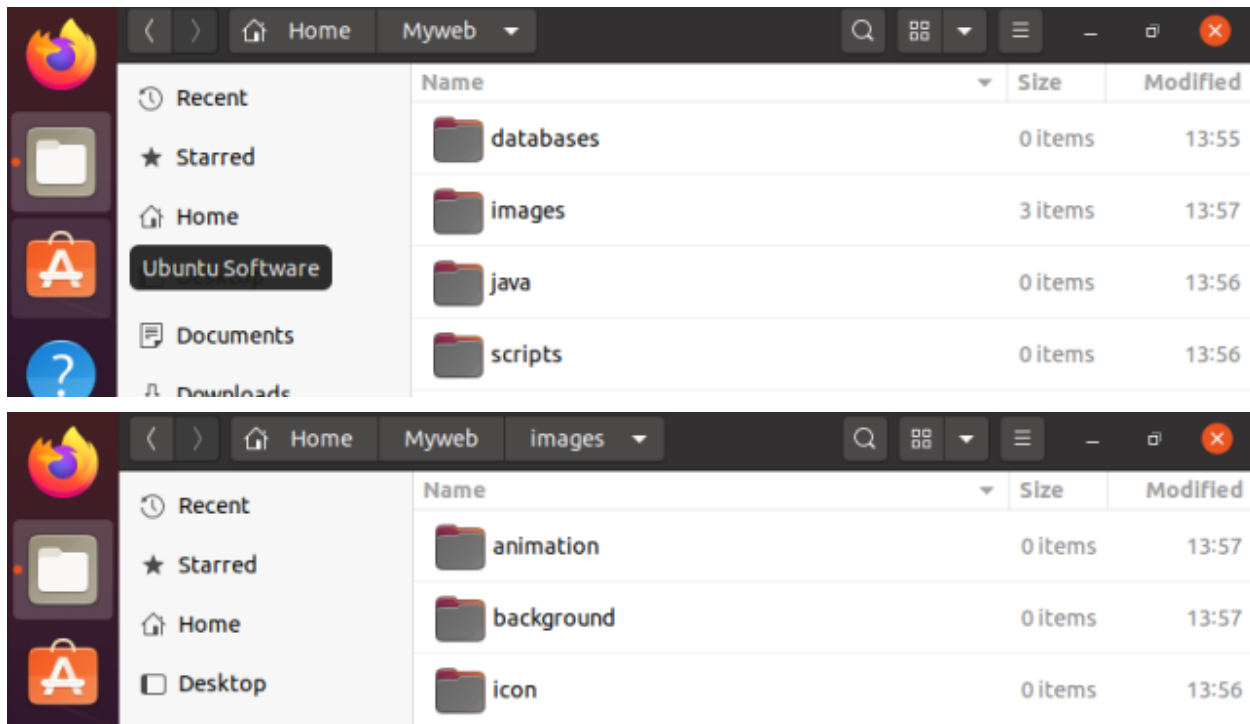
### 2. Task name 2



The screenshot shows a terminal window where a directory structure is being created using the `mkdir -p` command. The path is `/home/dung-19520477/Myweb`. The structure includes subdirectories for `images`, `databases`, `scripts`, `java`, `images/icon`, `images/background`, and `images/animation`. Each step is annotated with a comment in Vietnamese: `/* tạo thư mục Myweb */`, `/* tạo thư mục images */`, `/* tạo thư mục databases */`, `/* tạo thư mục scripts */`, `/* tạo thư mục java */`, `/* tạo thư mục icon */`, `/* tạo thư mục background */`, and `/* tạo thư mục animation */`.

```
Try 'mkdir --help' for more information.
/* tạo thư mục Myweb */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/images /* tạo thư mục images */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/databases /* tạo thư mục databases */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/scripts /* tạo thư mục scripts */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/java /* tạo thư mục java */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/images/icon /* tạo thư mục icon */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/images/background /* tạo thư mục background */
dung-19520477@dung19520477-VirtualBox:/home$ mkdir -p /home/dung-19520477/Myweb
/images/animation /* tạo thư mục animation */
dung-19520477@dung19520477-VirtualBox:/home$
```

Cây thư mục



Hiển thị giao diện của cây thư mục đã tạo

### 3. Task name 3

```
dung-19520477@dung19520477-VirtualBox:~$ find . -name "*.html"
dung-19520477@dung19520477-VirtualBox:~$ find . -name "*.class"
dung-19520477@dung19520477-VirtualBox:~$ ls
Desktop  Downloads  Myweb      Public     Videos
Documents Music       Pictures   Templates
dung-19520477@dung19520477-VirtualBox:~$ cd Music
dung-19520477@dung19520477-VirtualBox:~/Music$ touch yeuamnhac.html anime237.class
dung-19520477@dung19520477-VirtualBox:~/Music$ ls
anime237.class  yeuamnhac.html
dung-19520477@dung19520477-VirtualBox:~/Music$ cd ..
dung-19520477@dung19520477-VirtualBox:~$ find . -name "*.html"
./Music/yeuamnhac.html
dung-19520477@dung19520477-VirtualBox:~$ find . -name "*.class"
./Music/anime237.class
```

Tạo và tìm file có phần mở rộng .html và .class

```
dung-19520477@dung19520477-VirtualBox:~$ cp ./Music/yeuamnhac.html /home/dung-19520477/Myweb
dung-19520477@dung19520477-VirtualBox:~$ ls Myweb
databases  images  java  scripts  yeuamnhac.html
```

Copy file “yeuamnhac.html” vào thư mục Myweb

```

dung-19520477@dung19520477-VirtualBox:~$ touch butterfly.html
dung-19520477@dung19520477-VirtualBox:~$ find . -name "*.html"
./butterfly.html
./Myweb/yeuamnhac.html
./Music/yeuamnhac.html
dung-19520477@dung19520477-VirtualBox:~$ cp ./butterfly.html /home/dung-19520477/Myweb
dung-19520477@dung19520477-VirtualBox:~$ ls Myweb
butterfly.html  databases  images  java  scripts  yeuamnhac.html

```

Thực hiện tương tự các bước như trên đối với file “butterfly.html”

#### 4. Task name 4

```

butterfly.html  databases  images  java  scripts  yeuamnhac.html
dung-19520477@dung19520477-VirtualBox:~/Myweb$ mv butterfly.html /home/dung-19520477/Myweb/java
dung-19520477@dung19520477-VirtualBox:~/Myweb$ mv yeuamnhac.html /home/dung-19520477/Myweb/java
dung-19520477@dung19520477-VirtualBox:~/Myweb$ ls
databases  images  java  scripts
dung-19520477@dung19520477-VirtualBox:~/Myweb$ cd java
dung-19520477@dung19520477-VirtualBox:~/Myweb/java$ ls
butterfly.html  yeuamnhac.html
dung-19520477@dung19520477-VirtualBox:~/Myweb/java$

```

Di chuyển file “yeuamnhac.html” và “butterfly.html” trong thư mục Myweb→Myweb/java

#### 5. Task name 5

```

dung-19520477@dung19520477-VirtualBox:/$ cd /home/dung-19520477/Myweb
dung-19520477@dung19520477-VirtualBox:~/Myweb$ rmdir scripts
dung-19520477@dung19520477-VirtualBox:~/Myweb$ ls
databases  images  java
dung-19520477@dung19520477-VirtualBox:~/Myweb$

```

Xóa thư mục Myweb/scripts

#### 6. Task name 6

```

dung-19520477@dung19520477-VirtualBox:~/Myweb$ chmod 700 databases

```

Thiết lập quyền truy xuất cho Myweb/databases  
(chủ sở hữu có toàn quyền, những người dùng khác không có quyền gì trên nó)

```
dung-19520477@dung19520477-VirtualBox:/$ su -l - 19521219
Password:
su: warning: cannot change directory to /home/19521219: No such file or directory
$ ls
```

```
$ cd databases
-sh: 11: cd: can't cd to databases
$ mkdir /home/dung-19520477/Myweb/databases/mydog
mkdir: cannot create directory '/home/dung-19520477/Myweb/databases/mydog': Permission denied
$ exit
dung-19520477@dung19520477-VirtualBox:/$ cd /home/dung-19520477/Myweb/databases
dung-19520477@dung19520477-VirtualBox:~/Myweb/databases$
```

Kiểm tra lệnh **chmod 700 databases** đã được thực thi hay không.

*Khi đăng nhập bằng user 19521219 khác chủ sở hữu, không thể di chuyển vào thư mục databases cũng như không thể tạo một directory trong nó.*

## 7. Task name 7

```
dung-19520477@dung19520477-VirtualBox:/$ sudo groupadd HDH
[sudo] password for dung-19520477:
```

Tạo group HDH

```
dung-19520477@dung19520477-VirtualBox:/$ sudo useradd 19521219

dung-19520477@dung19520477-VirtualBox:/$ sudo usermod -a -G HDH 19521219
dung-19520477@dung19520477-VirtualBox:/$ sudo usermod -a -G HDH 19520600
usermod: user '19520600' does not exist
dung-19520477@dung19520477-VirtualBox:/$ sudo useradd 19520600
dung-19520477@dung19520477-VirtualBox:/$ sudo usermod -a -G HDH 19520600
dung-19520477@dung19520477-VirtualBox:/$ sudo passwd 19521219
New password:
Retype new password:
passwd: password updated successfully
dung-19520477@dung19520477-VirtualBox:/$ sudo passwd 19520600
New password:
Retype new password:
passwd: password updated successfully
dung-19520477@dung19520477-VirtualBox:/$ sudo useradd 19520367
dung-19520477@dung19520477-VirtualBox:/$ sudo usermod -a -G HDH 19520367
dung-19520477@dung19520477-VirtualBox:/$ sudo passwd 19520367
New password:
Retype new password:
passwd: password updated successfully
dung-19520477@dung19520477-VirtualBox:/$ sudo useradd 19520321
dung-19520477@dung19520477-VirtualBox:/$ sudo passwd 19520321
New password:
Retype new password:
passwd: password updated successfully
dung-19520477@dung19520477-VirtualBox:/$ sudo usermod -a -G HDH 19520321
```

Tạo các user 19521219, 19520600, 19520367, 19520321 nằm trong group HDH



```

dung-19520477@dung19520477-VirtualBox:/$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,dung-19520477
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:dung-19520477
floppy:x:25:
tape:x:26:
sudo:x:27:dung-19520477
audio:x:29:pulse
dip:x:30:dung-19520477
www-data:x:33:
backup:x:34:
operator:x:37:
list:x:38:
irc:x:39:

bluetooth:x:112:
ssl-cert:x:113:
uidd:x:114:
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:dung-19520477
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:dung-19520477
dung-19520477:x:1000:
smbshare:x:132:dung-19520477
systemd-coredump:x:999:
HDH:x:1001:19521219,19520600,19520367,19520321 ✓
19521219:x:1002:
19520600:x:1003:
19520367:x:1004:
19520321:x:1005:
dung-19520477@dung19520477-VirtualBox:/$

```

Kiểm tra group HDH và các user đã được tạo hay chưa (liệt kê tất cả các group)

```

dung-19520477@dung19520477-VirtualBox:/$ su -l - 19521219
Password:
su: warning: cannot change directory to /home/19521219: No such file or directory
$ ls
bin      dev      lib      libx32   mnt      root     snap     sys      var
boot    etc      lib32    lost+found  opt      run      srv      tmp
cdrom    home     lib64    media    proc     sbin     swapfile  usr
$ cd /
$ cd /home
$ ls
dung-19520477
$ cd/home/dung-19520477
-sh: 5: cd/home/dung-19520477: not found
$ cd /home/dung-19520477
$ ls
Desktop  Downloads  Myweb      Public      Videos
Documents Music       Pictures   Templates
$ ls Myweb
databases  images  java

```

```

$ cd databases
-sh: 11: cd: can't cd to databases
$ mkdir /home/dung-19520477/Myweb/databases/mydog
mkdir: cannot create directory '/home/dung-19520477/Myweb/databases/mydog': Permission denied
$ exit
dung-19520477@dung19520477-VirtualBox:/$ cd /home/dung-19520477/Myweb/databases
dung-19520477@dung19520477-VirtualBox:~/Myweb/databases$

```

Login và thực thi một số lệnh bằng user khác owner (chủ sở hữu)