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Cpe 453, Section 01
Lab 2
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Lab 2: Minix Scavenger Hunt

Hello, for this laboratory I will be using LaTeX for my choice of document prepartion. I also have chosen to use `VirtualBox` for hosting Minix 3.1.8 on.

2 Logging in

2.1 Approach

I was prompted immedately with:

```
# login:
```

For a long time I was typing in my Cal Poly username "vdelapla":

```
# login:  vdelapla

Password:  *****
```

2.2 Problems Encountered

Each time I would enter my username I would get a login error.

2.3 Solutions

After getting a lot of "Login incorrect" messages, I realized it was time to read the manual. It said that to login with the name "root" and continue with the following steps.

2.4 Lessons Learned

In this section I learned to read things more closely.

3 Create a user account

3.1 Approach

The create a user account section consists creating a new username and setting a password for that username. The user account I created is "victor", its group is "operator", and home directory is "/home/victor".

3.2 Problems Encountered

When it was time to create a password for my login name "victor", I typed in the shell "passwd" while logged in as root. This prompted me to change the password for root:

```
# passwd
Changing the shadow password of root
New pasword:
```

3.3 Solutions

The solution was to exit "passwd" by hitting CTRL-C, and then to read the man page for "passwd". In the man page, I came across an optional argument, that changes the password/set of an existing user. This command otherwise defaults to the signed-in user.

3.4 Lessons Learned

In this section, I learned to not assume anything about the functionality of a program, and always go back to read the man page if im not sure what it does.

4 Create a Minix disk image and use it to store data

4.1 Approach

I needed to create an empty disk image file, so I issued the "dd if=/dev/zero of=testFloppy.img bs=1024 count=1440" command. Then went on the `Virtual Box` settings and configured the "testFloppy.img" to be used for Minix's drive. After coniguring the above, I then formated the floppy drive, made the file system, mounted the floppy, and finally unmounted it. Below shows the commands after attatching the floppy drive in `Virtual Box`.

```
format /dev/fd0 1440
mkfs /dev/fd0
mkdir /mnt/Floppy
mount /dev/fd0 /mnt/Floppy
umount /mnt/Floppy
```

4.2 Problems Encountered

When, I was trying to un mount the floppy drive using the above command. I issued it before making a directory called "Floppy" and got an error that said:

```
mount:  Can't mount /dev/fd0 on /mnt/Floppy/:  No such file or directory
```

4.3 Solutions

The solution was to create an empty folder named "Floppy" by using "mkdir /mnt/Floppy".

4.4 Lessons Learned

Again, I learned that you cannot assume that a program does something.

5 Acessing your data from outside Minix

5.1 Approach

I configured the network for Minix by first using netconf and using the recommened network card. After this I shut down the Minix machine, went into VirtualBox settings and selected the bridge connection option. Finally, after this I restarted Minix looked up its ip address, then ran:

```
scp -P 22 victor@<ip address>:/home/victor/.ashrc .
```

On my local machine that I ran this command I was able to get the file ".ashrc" onto my current working directory.

5.2 Problems Encountered

I tried to run "scp" as "ssh" where you just provide the ¡hostname¿@¡ip address¿, because I thought it was going to give me a shell like "ftp".

5.3 Solutions

I looked at the man page for "scp"; it said that after the target ip address to put the file name you want, and where you want to place it.

5.4 Lessons Learned

I have learned that to read the man page, before assumptions are made.