Part 1:

How you made the changes

```
vagrant@ubuntu2210:/home/midterm$ sudo chmod 744 p1-file
```

That the changes were made successfully

```
-rwxr--r-- 1 root root 0 Feb 15 19:20 p1-file
```

Part2:

The command that you used, include some output

screenshots from the man page for ps that illustrate how you

displayed the correct fields

```
ps -U root -u root u

To see every process with a user-defined format:
    ps -eo pid,tid,class,rtprio,ni,pri,psr,pcpu,stat,wchan:14,comm
    ps axo stat,euid,ruid,tty,tpgid,sess,pgrp,ppid,pid,pcpu,comm
    ps -Ao pid,tt,user,fname,tmout,f,wchan

c cmd simple name of executable

r rss resident set size
```

sorted the output

0 order

Sorting order (overloaded). The BSD O option can act like -O (user-defined output format with some common fields predefined) or can be used to specify sort order. Heuristics are used to determine the behavior of this option. To ensure that the desired behavior is obtained (sorting or formatting), specify the option in some other way (e.g. with -O or --sort).

For sorting, obsolete BSD 0 option syntax is 0[+|-]k1[,[+|-]k2[,...]]. It orders the processes listing according to the multilevel sort specified by the sequence of one-letter short keys k1,k2, ... described in the OBSOLETE SORT KEYS section below. The "+" is currently optional, merely re-iterating the default direction on a key, but may help to distinguish an 0 sort from an 0 format. The "-" reverses direction only on the key it precedes.

Part3:

the commands that you use

to create your user

vagrant@ubuntu2210:/\$ sudo useradd -m usermid -s /bin/bash

set your user's password

vagrant@ubuntu2210:/home\$ sudo passwd usermid
New password:
Retype new password:
passwd: password updated successfully

create a new group

vagrant@ubuntu2210:/home\$ sudo groupadd midterm

change the group owner of the midterm directory

vagrant@ubuntu2210:/home\$ sudo chown :midterm midterm

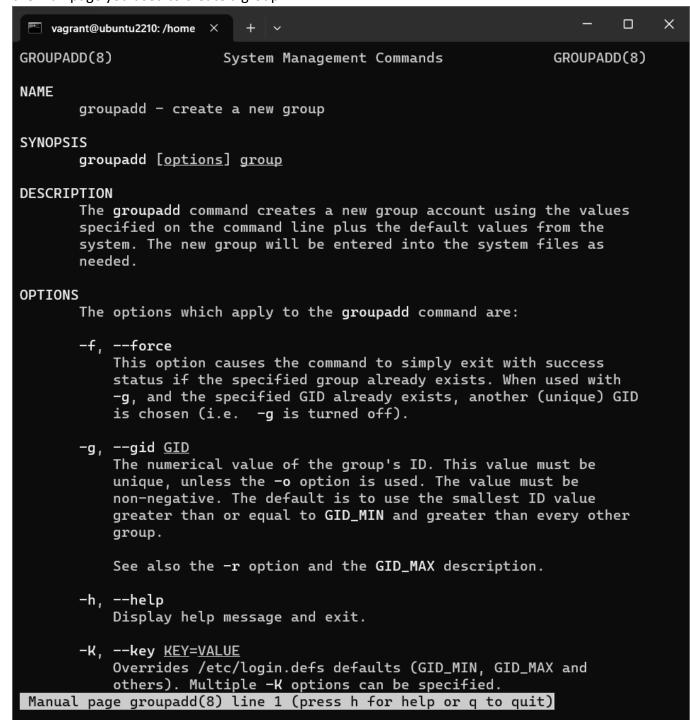
add your user to the group

vagrant@ubuntu2210:/home\$ sudo usermod -a -G midterm usermid

evidence

```
drwxr-xr-x 2 root
                     root
                            4.0K Feb 15 19:51 midterm/
drwxr-x--- 2 usermid usermid 4.0K Feb 15 19:49 usermid/
drwxr-x--- 8 vagrant vagrant 4.0K Feb 15 19:56 vagrant/
vagrant@ubuntu2210:/home$ sudo chown :midterm midterm
vagrant@ubuntu2210:/home$ ls -l
total 24K
drwxr-xr-x 6 root
                             4.0K Feb 15 19:50 ./
                     root
drwxr-xr-x 19 root
                            4.0K Dec 10 07:52 ../
                     root
                     markus 4.0K Feb 2 01:26 markus/
drwxr-x--- 2 markus
                     midterm 4.0K Feb 15 19:51 midterm/
drwxr-xr-x 2 root
```

the man page you used to create a group



how you found that man page

```
vagrant@ubuntu2210:/home$ man -k 'create a new group'
groupadd (8) - create a new group
```

P4. Write a command that uses grep to find and print all the regular users on your system.

```
vagrant@ubuntu2210:/home$ grep -E x:[1-9][0-9][0-9][0-9]: /etc/passwd
vagrant:x:1000:1000::/home/vagrant:/bin/bash
markus:x:1001:1001::/home/markus:/bin/bash
usermid:x:1003:1003::/home/usermid:/bin/bash
```

P5. 2 points Write a command, using find , that will find and count all the files in /etc . Hide all the error messages, "Permission denied", by sending them to a file that doesn't store any data.

```
vagrant@ubuntu2210:/home$ find /etc 2>/dev/null| wc -l
1571
```

P6. 1point Run a command that will display the version of the kernel that your VM is using:

```
vagrant@ubuntu2210:/home$ uname -r
5.19.0-26-generic
```

P7. 2 points Copy the code below into a new file \$HOME/midterm/nfntlp. Make the file executable and run it as a background process, like this: ./nfntlp &