

Assignment- Linux

Basic Linux Exercise:

1. Create directory/sub directory

```
npbdh login: anabig11425
anabig11425@npbdh.cloudloka.com's password:
Last login: Tue Apr 12 12:10:55 2022 from ec2-65-1-45-35.ap-south-1.compute.amazonaws
[anabig11425@ip-10-1-1-204 ~]$ mkdir newdirectory
[anabig11425@ip-10-1-1-204 ~]$ ls
big big_localcopy kohil newdirectory purplecow rcb tscm
[anabig11425@ip-10-1-1-204 ~]$
```

```
[anabig11425@ip-10-1-1-204 ~]$ cd newdirectory
[anabig11425@ip-10-1-1-204 newdirectory]$ mkdir mysubdirectory
[anabig11425@ip-10-1-1-204 newdirectory]$ ls
mysubdirectory
[anabig11425@ip-10-1-1-204 newdirectory]$
```

2. Create a file inside the subdirectory

```
[anabig11425@ip-10-1-1-204 newdirectory]$ touch file1
[anabig11425@ip-10-1-1-204 newdirectory]$ ls
file1 mysubdirectory
[anabig11425@ip-10-1-1-204 newdirectory]$
```

3. Copy/move/delete command

Copy:

```
[anabig11425@ip-10-1-1-204 newdirectory]$ cd
[anabig11425@ip-10-1-1-204 ~]$ cp newdirectory/file1 file2
[anabig11425@ip-10-1-1-204 ~]$ ls
big big_localcopy file2 kohil newdirectory purplecow rcb tscm
[anabig11425@ip-10-1-1-204 ~]$
```

Move:

```
[anabig11425@ip-10-1-1-204 ~]$ touch newdirectory/file1
[anabig11425@ip-10-1-1-204 ~]$ ls newdirectory
file1  mysubdirectory
[anabig11425@ip-10-1-1-204 ~]$ mv newdirectory/file1 temp1/
[anabig11425@ip-10-1-1-204 ~]$ ls temp1
file1
```

Delete:

```
[anabig11425@ip-10-1-1-204 ~]$ cd temp1
[anabig11425@ip-10-1-1-204 temp1]$ rm file1
```

4. Create user

```
[anabig11425@ip-10-1-1-204 temp1]$ useradd sanjeev
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.
[anabig11425@ip-10-1-1-204 temp1]$
```

5. Add user to group

```
useradd user
groupadd group1
useradd -g group1 user
```

6. Set password

```
passwd alabs
```

7. Create file and change ownership

```
[anabig11425@ip-10-1-1-204 temp1]$ cd
[anabig11425@ip-10-1-1-204 ~]$ pwd
/home/anabig11425
[anabig11425@ip-10-1-1-204 ~]$ touch test-file
[anabig11425@ip-10-1-1-204 ~]$ ls
big          file2  newdirectory  rcb      temp1      tscm
big_localcopy kohil  purplecow     temp    test-file
[anabig11425@ip-10-1-1-204 ~]$ ls -l test-file
-rw-rw-r-- 1 anabig11425 anabig11425 0 Apr 12 14:56 test-file
[anabig11425@ip-10-1-1-204 ~]$ chown root te
chown: cannot access 'te': No such file or directory
[anabig11425@ip-10-1-1-204 ~]$ chown root test-file
chown: changing ownership of 'test-file': Operation not permitted
[anabig11425@ip-10-1-1-204 ~]$
```

8. Change mode

```
[anabig11425@ip-10-1-1-204 ~]$ ls -l test-file
-rw-rw-r-- 1 anabig11425 anabig11425 0 Apr 12 14:56 test-file
[anabig11425@ip-10-1-1-204 ~]$ chmod 777 test-file
[anabig11425@ip-10-1-1-204 ~]$ ls -l test-file
-rwxrwxrwx 1 anabig11425 anabig11425 0 Apr 12 14:56 test-file
[anabig11425@ip-10-1-1-204 ~]$
```

9. Setup password less communication between two user/vm

```
[anabig11425@ip-10-1-1-204 ~]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/anabig11425/.ssh/id_rsa):
Created directory '/home/anabig11425/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/anabig11425/.ssh/id_rsa.
Your public key has been saved in /home/anabig11425/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:EEJmOK1lhLtFWx8aSBUCNgv15KVZuJ8lXoUUfZofk5Q anabig11425@ip-10-1-1-204.ap-sou
th-1.compute.internal
The key's randomart image is:
+---[RSA 2048]-----+
|oB*=0o+.o+  .|
|++=B+*... o E|
|o+oo==.. . = .|
|ooo o o.o o +|
|.o  o =S  . o|
|.  +  .|
|_|
+-----[SHA256]-----+
[anabig11425@ip-10-1-1-204 ~]$ cd.ssh
-bash: cd.ssh: command not found
[anabig11425@ip-10-1-1-204 ~]$ cd .ssh
[anabig11425@ip-10-1-1-204 .ssh]$ ls
id_rsa id_rsa.pub
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l
total 8
-rw----- 1 anabig11425 anabig11425 1679 Apr 12 14:59 id_rsa
-rw-r--r-- 1 anabig11425 anabig11425 435 Apr 12 14:59 id_rsa.pub
[anabig11425@ip-10-1-1-204 .ssh]$
```

10. Create a file with some content and play with gedit/vi editor

```
anabig11425@ip-10-1-1-204 .ssh]$ gedit test-file
bash: gedit: command not found
anabig11425@ip-10-1-1-204 .ssh]$ vi test-file
anabig11425@ip-10-1-1-204 .ssh]$
```

11. Provide full read/write/execution access for user, group and provide only read access for others.

```
[anabig11425@ip-10-1-1-204 .ssh]$ vi test-file
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l test-file
-rw-rw-r-- 1 anabig11425 anabig11425 0 Apr 12 15:01 test-file
[anabig11425@ip-10-1-1-204 .ssh]$ chmod 774 test-file
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l test-file
-rwxrwxr-- 1 anabig11425 anabig11425 0 Apr 12 15:01 test-file
[anabig11425@ip-10-1-1-204 .ssh]$
```

12. How to get currently logged in users?

```
[anabig11425@ip-10-1-1-204 .ssh]$ who
anabig114231 pts/13      2022-04-12 13:41 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
anabig114233 pts/1      2022-04-12 12:39 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
anabig11424 pts/25      2022-04-12 14:11 (ec2-65-1-45-35.ap-south-1.compute.amazon
aws.com)
anabig114235 pts/30     2022-04-12 14:20 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
anabig114220 pts/40     2022-04-12 12:48 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
janakisidd67edu pts/43  2022-04-12 14:39 (ec2-65-1-45-35.ap-south-1.compute.am
azonaws.com)
anabig114231 pts/10     2022-04-12 13:09 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
deepikapro66edu pts/19  2022-04-12 11:08 (ec2-65-1-45-35.ap-south-1.compute.am
azonaws.com)
anabig114229 pts/21     2022-04-12 14:36 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
anabig11425 pts/34      2022-04-12 14:21 (ec2-65-1-45-35.ap-south-1.compute.amazon
aws.com)
anabig114240 pts/38     2022-04-12 14:58 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
anabig114223 pts/9      2022-04-12 13:21 (ec2-65-1-45-35.ap-south-1.compute.amaz
naws.com)
[anabig11425@ip-10-1-1-204 .ssh]$
```

13. Compress /tar and un-compress /untar files

```
[anabig11425@ip-10-1-1-204 .ssh]$ gzip test-file
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l testfile
ls: cannot access testfile: No such file or directory
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l
total 12
-rw----- 1 anabig11425 anabig11425 1679 Apr 12 14:59 id_rsa
-rw-r--r-- 1 anabig11425 anabig11425 435 Apr 12 14:59 id_rsa.pub
-rwxrwxr-- 1 anabig11425 anabig11425 30 Apr 12 15:01 test-file.gz
[anabig11425@ip-10-1-1-204 .ssh]$
```

Unzip:

```
[anabig11425@ip-10-1-1-204 .ssh]$ gzip -d test-file
[anabig11425@ip-10-1-1-204 .ssh]$ ls -l
total 8
-rw----- 1 anabig11425 anabig11425 1679 Apr 12 14:59 id_rsa
-rw-r--r-- 1 anabig11425 anabig11425  435 Apr 12 14:59 id_rsa.pub
-rwxrwxr-- 1 anabig11425 anabig11425    0 Apr 12 15:01 test-file
[anabig11425@ip-10-1-1-204 .ssh]$
```

14. Work on few examples using grep and find commands for searching patterns.

```
[anabig11425@ip-10-1-1-204 .ssh]$ mkdir test
[anabig11425@ip-10-1-1-204 .ssh]$ cd test
[anabig11425@ip-10-1-1-204 test]$ grep -i "linux" *
grep: *: No such file or directory
[anabig11425@ip-10-1-1-204 test]$
```

15. Using linux command, find the IP address of your current system?

```
[anabig11425@ip-10-1-1-204 test]$ ifconfig
ens5: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 9001
    inet 10.1.1.204  netmask 255.255.255.0  broadcast 10.1.1.255
    inet6 fe80::472:38ff:fe91:78fa  prefixlen 64  scopeid 0x20<link>
    ether 06:72:38:91:78:fa  txqueuelen 1000  (Ethernet)
    RX packets 4145249913  bytes 6031561284816 (5.4 TiB)
    RX errors 0  dropped 4  overruns 0  frame 0
    TX packets 4602871857  bytes 2735794381456 (2.4 TiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 4538967011  bytes 5527721812228 (5.0 TiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 4538967011  bytes 5527721812228 (5.0 TiB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[anabig11425@ip-10-1-1-204 test]$
```

