Solve below task and send solution -

a) Create a tar compressed archive of your home directory and upload on remote server.

ubuntu@ip-172-31-23-167:~$ ls -l

total 0

ubuntu@ip-172-31-23-167:~$ nano

ubuntu@ip-172-31-23-167:~$ nano Ubuntu\_aws.pem

ubuntu@ip-172-31-23-167:~$ ls -l

total 4

-rw-rw-r-- 1 ubuntu ubuntu 1675 Dec 23 18:15 Ubuntu\_aws.pem

ubuntu@ip-172-31-23-167:~$ chmod 600 Ubuntu\_aws.pem

ubuntu@ip-172-31-23-167:~$ ssh -i "Ubuntu\_aws.pem" [ubuntu@ec2-18-222-213-140.us-east-2.compute.amazonaws.com](mailto:ubuntu@ec2-18-222-213-140.us-east-2.compute.amazonaws.com)

The authenticity of host 'ec2-18-222-213-140.us-east-2.compute.amazonaws.com (17 2.31.25.77)' can't be established.

ECDSA key fingerprint is SHA256:vzcIst+1TSzcuyrTLLsYwr5Y+/j3xt93z3pgzgYU08o.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added 'ec2-18-222-213-140.us-east-2.compute.amazonaws.com,1 72.31.25.77' (ECDSA) to the list of known hosts.

Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.4.0-1032-aws x86\_64)

\* Documentation: https://help.ubuntu.com

\* Management: https://landscape.canonical.com

\* Support: https://ubuntu.com/advantage

System information as of Wed Dec 23 18:16:33 UTC 2020

System load: 0.0 Processes: 103

Usage of /: 22.1% of 7.69GB Users logged in: 1

Memory usage: 19% IP address for eth0: 172.31.25.77

Swap usage: 0%

\* Introducing self-healing high availability clusters in MicroK8s.

Simple, hardened, Kubernetes for production, from RaspberryPi to DC.

https://microk8s.io/high-availability

\* Canonical Livepatch is available for installation.

- Reduce system reboots and improve kernel security. Activate at:

https://ubuntu.com/livepatch

19 packages can be updated.

0 updates are security updates.

New release '20.04.1 LTS' available.

Run 'do-release-upgrade' to upgrade to it.

Last login: Wed Dec 23 17:25:21 2020 from 157.33.223.117

root@ip-172-31-23-167:/# tar -cvf home.tar /home

tar: Removing leading `/' from member names

/home/

/home/ubuntu/

/home/ubuntu/.cache/

/home/ubuntu/.cache/motd.legal-displayed

/home/ubuntu/.bash\_history

/home/ubuntu/.profile

/home/ubuntu/.local/

/home/ubuntu/.local/share/

/home/ubuntu/.local/share/nano/

/home/ubuntu/.bashrc

/home/ubuntu/.gnupg/

/home/ubuntu/.gnupg/private-keys-v1.d/

/home/ubuntu/.bash\_logout

/home/ubuntu/Ubuntu\_aws.pem

/home/ubuntu/.ssh/

/home/ubuntu/.ssh/authorized\_keys

/home/ubuntu/.ssh/known\_hosts

/home/ubuntu/.sudo\_as\_admin\_successful

root@ip-172-31-23-167:/# ls -l | grep home

drwxr-xr-x 3 root root 4096 Dec 21 16:17 home

-rw-r--r-- 1 root root 20480 Dec 23 19:01 home.tar

root@ip-172-31-23-167:/# scp -i /home/ubuntu/Ubuntu\_aws.pem home.tar ubuntu@ec2-18-222-213-140.us-east-2.compute.amazonaws.com:

home.tar 100% 20KB 20.8MB/s 00:00

ubuntu@ip-172-31-25-77:~$ ls -l

total 20

-rw-r--r-- 1 ubuntu ubuntu 20480 Dec 23 19:31 home.tar  
  
b) Upload your home directory (/home/<user>) on remote server in such way that it should retain permission/ownership of files  
  
c) Find out IP address of [www.bridgelabz.compressed](http://www.bridgelabz.compressed)

ubuntu@ip-172-31-25-77:~$ ping www.bridgelabz.com

PING bridgelabz.com (35.244.62.62) 56(84) bytes of data.

64 bytes from 62.62.244.35.bc.googleusercontent.com (35.244.62.62): icmp\_seq=1 ttl=90 time=276 ms

64 bytes from 62.62.244.35.bc.googleusercontent.com (35.244.62.62): icmp\_seq=2 ttl=90 time=276 ms

64 bytes from 62.62.244.35.bc.googleusercontent.com (35.244.62.62): icmp\_seq=3 ttl=90 time=276 ms

64 bytes from 62.62.244.35.bc.googleusercontent.com (35.244.62.62): icmp\_seq=4 ttl=90 time=276 ms

^C

--- bridgelabz.com ping statistics ---

4 packets transmitted, 4 received, 0% packet loss, time 3003ms

rtt min/avg/max/mdev = 276.262/276.308/276.339/0.372 ms  
  
d) Create file in / folder in such a way that we can append data into it but not able to modified or delete existing data

ubuntu@ip-172-31-23-167:~$ mkdir folder

ubuntu@ip-172-31-23-167:~$ ls -l

total 28

-rw------- 1 ubuntu ubuntu 1675 Dec 23 18:15 Ubuntu\_aws.pem

drwxrwxr-x 2 ubuntu ubuntu 4096 Dec 23 21:29 folder

-rw-r--r-- 1 root root 20480 Dec 23 19:24 home.tar

ubuntu@ip-172-31-23-167:~$ chmod 777 folder

ubuntu@ip-172-31-23-167:~$ ls -l

total 28

-rw------- 1 ubuntu ubuntu 1675 Dec 23 18:15 Ubuntu\_aws.pem

drwxrwxrwx 2 ubuntu ubuntu 4096 Dec 23 21:29 folder

-rw-r--r-- 1 root root 20480 Dec 23 19:24 home.tar

ubuntu@ip-172-31-23-167:~$ lsattr

--------------e--- ./folder

--------------e--- ./home.tar

--------------e--- ./Ubuntu\_aws.pem

ubuntu@ip-172-31-23-167:~$ mkdir folder

ubuntu@ip-172-31-23-167:~$ chmod 777 folder

root@ip-172-31-23-167:/home/ubuntu# cd folder

root@ip-172-31-23-167:/home/ubuntu/folder# touch file1 file2 file3 file4

root@ip-172-31-23-167:/home/ubuntu/folder# cd ..

root@ip-172-31-23-167:/home/ubuntu# lsattr

--------------e--- ./folder

--------------e--- ./home.tar

--------------e--- ./Ubuntu\_aws.pem

root@ip-172-31-23-167:/home/ubuntu# chattr +a -R folder

root@ip-172-31-23-167:/home/ubuntu# lsattr

-----a--------e--- ./folder

--------------e--- ./home.tar

--------------e--- ./Ubuntu\_aws.pem

root@ip-172-31-23-167:/home/ubuntu# lsattr folder

-----a--------e--- folder/file1

-----a--------e--- folder/file3

-----a--------e--- folder/file2

-----a--------e--- folder/file4

root@ip-172-31-23-167:/home/ubuntu# nano folder/file1

root@ip-172-31-23-167:/home/ubuntu#

root@ip-172-31-23-167:/home/ubuntu# cat >> folder/file1

hii this appending

^C

root@ip-172-31-23-167:/home/ubuntu# cat folder/file1

hii this appending

root@ip-172-31-23-167:/home/ubuntu#

e) Find out value of environment variable DISPLAY

ubuntu@ip-172-31-25-77:~$ export DISPLAY=:0.1

ubuntu@ip-172-31-25-77:~$ echo $DISPLAY

:0.1

ubuntu@ip-172-31-25-77:~$ printenv | grep DISPLAY

DISPLAY=:0.1

f) Setup passwordless authentication(Key based authentication) between client and server so that you can able to connect remote server without using password.

ubuntu@ip-172-31-25-77:~$ ssh -i Ubuntu\_aws.pem [ubuntu@172.31.23.167](mailto:ubuntu@172.31.23.167)

ubuntu@ip-172-31-23-167:~$ ssh -i Ubuntu\_aws.pem ubuntu@172.31.25.77

g) What is number characters in your .bash\_profile (use appropriate command)

root@ip-172-31-25-77:~# wc -m .profile

148 .profile

root@ip-172-31-25-77:~# wc -c .profile

148 .profile

root@ip-172-31-25-77:~# wc -w .profile

26 .profile

root@ip-172-31-25-77:~# wc -l .profile

9 .profile

root@ip-172-31-25-77:~# wc .profile

9 26 148 .profile