Lab1

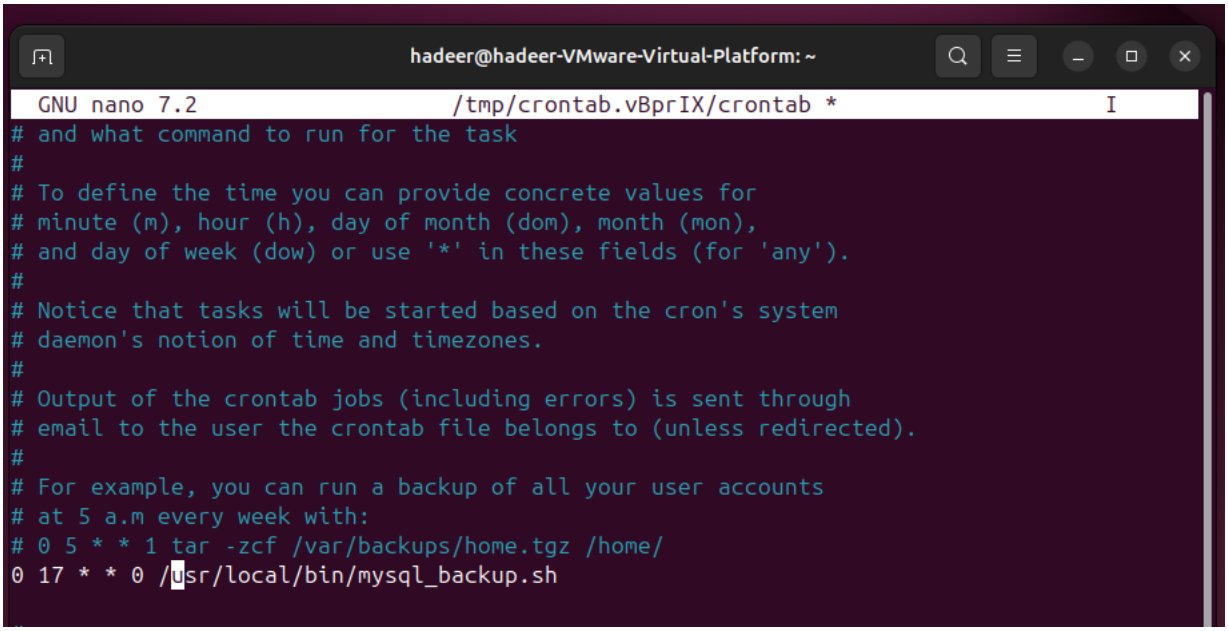
```
  57  sudo vim /etc/sudoers.d/ivolve
```

```
hadeer@hadeer-VMware-Virtual-Platform: ~
ivolvehadeer ALL=(ALL) NOPASSWD: /usr/bin/apt install nginx
~
~
```

```
hadeer@hadeer-VMware-Virtual-Platform:~$ su - ivolvehadeer
Password:
$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nginx is already the newest version (1.24.0-2ubuntu7.1).
0 upgraded, 0 newly installed, 0 to remove and 150 not upgraded.
$
```

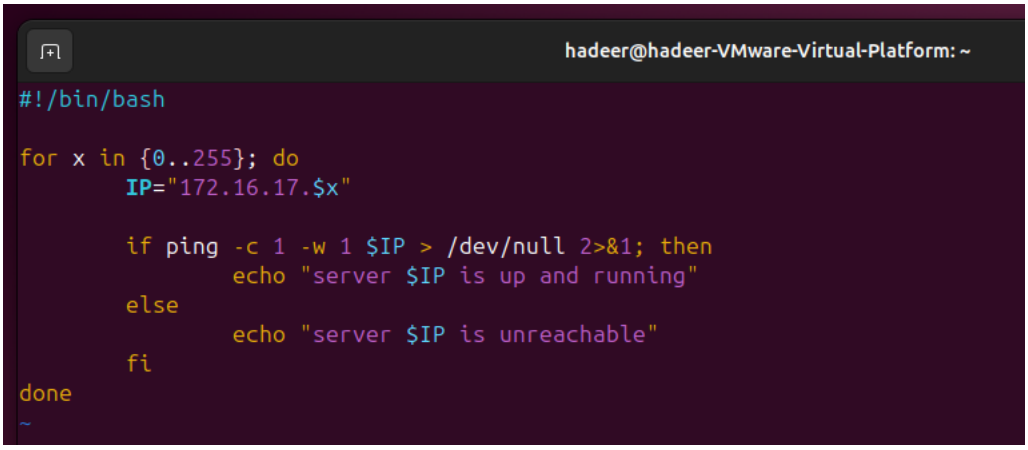
Lab 2

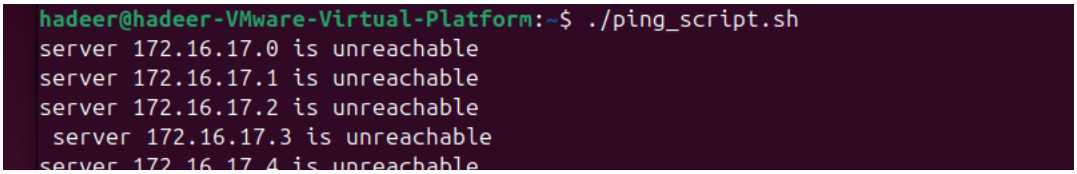
```
hadeer@hadeer-VMware-Virtual-Platform: ~
#!/bin/bash

# Define variables
BACKUP_DIR="/backup/mysql"
TIMESTAMP=$(date +%F_%H-%M-%S)
BACKUP_FILE="$BACKUP_DIR/mysql_backup_$TIMESTAMP.sql"
MYSQL_USER="root"
MYSQL_PASSWORD="your_mysql_root_password"

# Ensure backup directory exists
mkdir -p $BACKUP_DIR

# Take MySQL database backup
mysqldump -u $MYSQL_USER -p$MYSQL_PASSWORD --all-databases > $BACKUP_FILE

# Optional: Compress the backup file
gzip $BACKUP_FILE

# Print success message
echo "Backup completed successfully: $BACKUP_FILE.gz"
~
~
-- INSERT --                                                    21,1          All
```


hadeer@hadeer-VMware-Virtual-Platform: ~
GNU nano 7.2 /tmp/crontab.vBprIX/crontab *
and what command to run for the task
#
To define the time you can provide concrete values for
minute (m), hour (h), day of month (dom), month (mon),
and day of week (dow) or use '*' in these fields (for 'any').
#
Notice that tasks will be started based on the cron's system
daemon's notion of time and timezones.
#
Output of the crontab jobs (including errors) is sent through
email to the user the crontab file belongs to (unless redirected).
#
For example, you can run a backup of all your user accounts
at 5 a.m every week with:
0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
0 17 * * 0 /usr/local/bin/mysql_backup.sh

Lab 3

hadeer@hadeer-VMware-Virtual-Platform:~$ vim ping_script.sh


hadeer@hadeer-VMware-Virtual-Platform: ~
#!/bin/bash
for x in {0..255}; do
IP="172.16.17.$x"
if ping -c 1 -w 1 $IP > /dev/null 2>&1; then
echo "server $IP is up and running"
else
echo "server $IP is unreachable"
fi
done


hadeer@hadeer-VMware-Virtual-Platform:~$ ./ping_script.sh
server 172.16.17.0 is unreachable
server 172.16.17.1 is unreachable
server 172.16.17.2 is unreachable
server 172.16.17.3 is unreachable

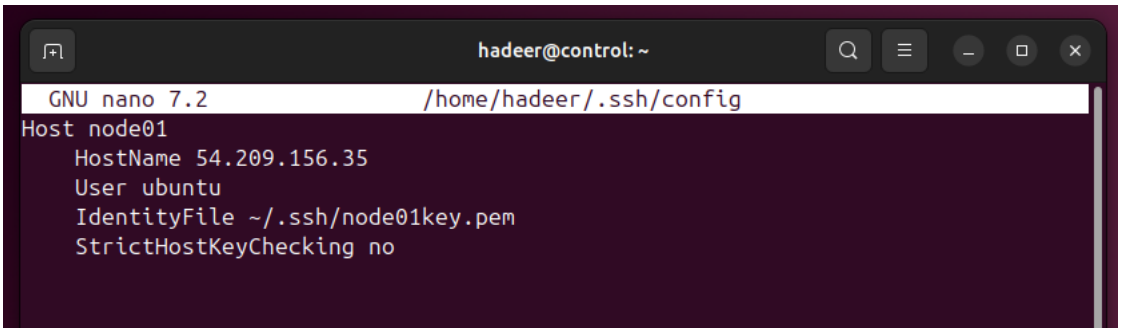
Lab 5

```
hadeer@control:~$ hostnamectl set-hostname control
```

```
hadeer@control:~/.ssh$ vim node01key.pem
hadeer@control:~/.ssh$ ls
authorized_keys  config  id_rsa  id_rsa.pub  known_hosts  known_hosts.old  node01key.pe
hadeer@control:~/.ssh$ # ssh -i ~/.ssh/node01key.pem  ubuntu@54.209.156.35
hadeer@control:~/.ssh$ chmod 400 ~/.ssh/node01key.pem
hadeer@control:~/.ssh$ ssh -i ~/.ssh/node01key.pem  ubuntu@54.209.156.35
The authenticity of host '54.209.156.35 (54.209.156.35)' can't be established.
ED25519 key fingerprint is SHA256:LfwDNSGLCZr3wRg6grujrucGJ3XdJOMyjc1LvpzBd7c.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '54.209.156.35' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)
```

```
ubuntu@ip-172-31-82-123:~$
```

```
hadeer@control:~$ sudo nano ~/.ssh/config
```




```
hadeer@control:~$ chmod 600 /home/hadeer/.ssh/config
```

```
hadeer@control:~$ ssh node01
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)
```