Karthik Pradeep Hegadi

2KE20CS032

Assignment 16

Understood. To follow the provided instructions and create the files/directory using the same name and case as provided in the task steps, please provide me with the specific names and case instructions for the files/directory you want to create.

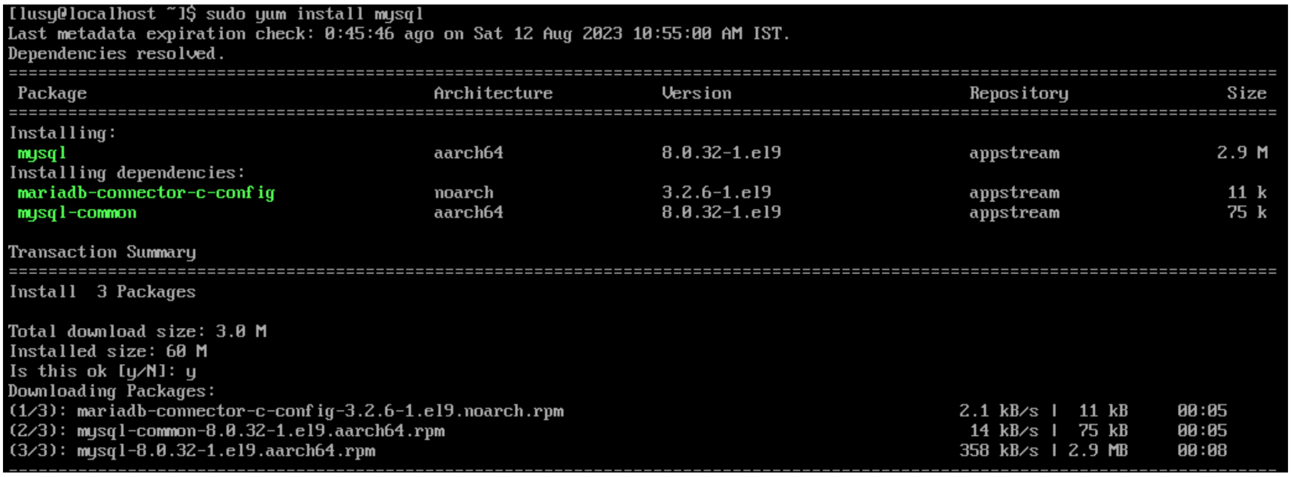
CRONJOB

==

TASK 1

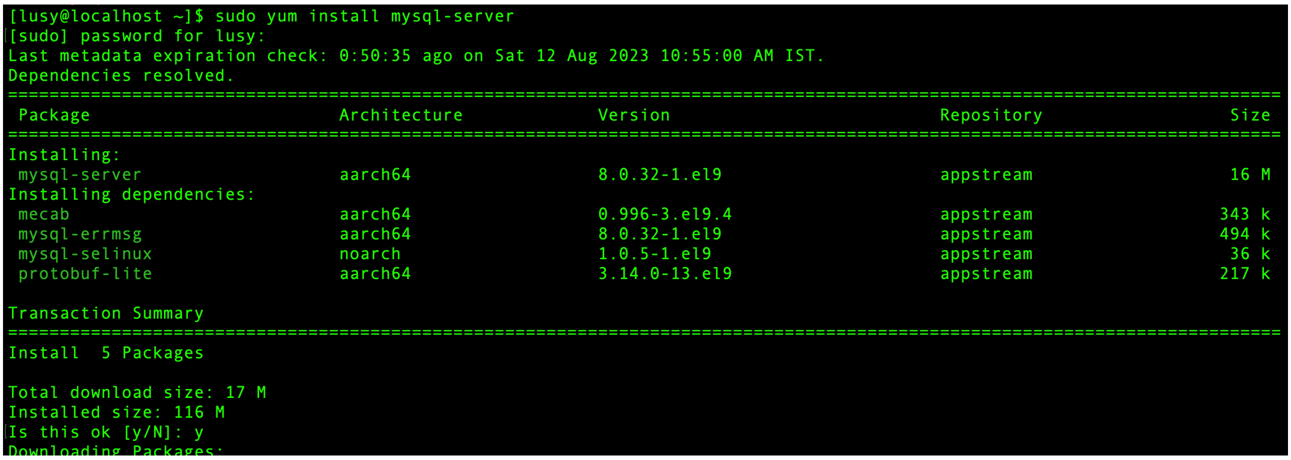
Create an automated backup for the database (dbdump) every hour.

1) **install mysql .**



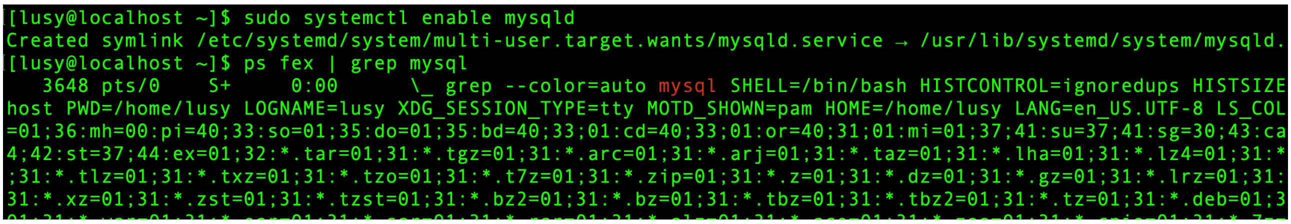
```
[lusy@localhost ~]$ sudo yum install mysql
Last metadata expiration check: 0:45:46 ago on Sat 12 Aug 2023 10:55:00 AM IST.
Dependencies resolved.
================================================================================================================
 Package                          Architecture        Version                       Repository            Size
================================================================================================================
Installing:
 mysql                            aarch64             8.0.32-1.el9                  appstream            2.9 M
Installing dependencies:
 mariadb-connector-c-config       noarch              3.2.6-1.el9                   appstream             11 k
 mysql-common                     aarch64             8.0.32-1.el9                  appstream             75 k

Transaction Summary
================================================================================================================
Install  3 Packages

Total download size: 3.0 M
Installed size: 60 M
Is this ok [y/N]: y
Downloading Packages:
(1/3): mariadb-connector-c-config-3.2.6-1.el9.noarch.rpm                       2.1 kB/s |  11 kB     00:05
(2/3): mysql-common-8.0.32-1.el9.aarch64.rpm                                    14 kB/s |  75 kB     00:05
(3/3): mysql-8.0.32-1.el9.aarch64.rpm                                          358 kB/s | 2.9 MB     00:08
----------------------------------------------------------------------------------------------------------------
```

2) **Install mysql-server.**



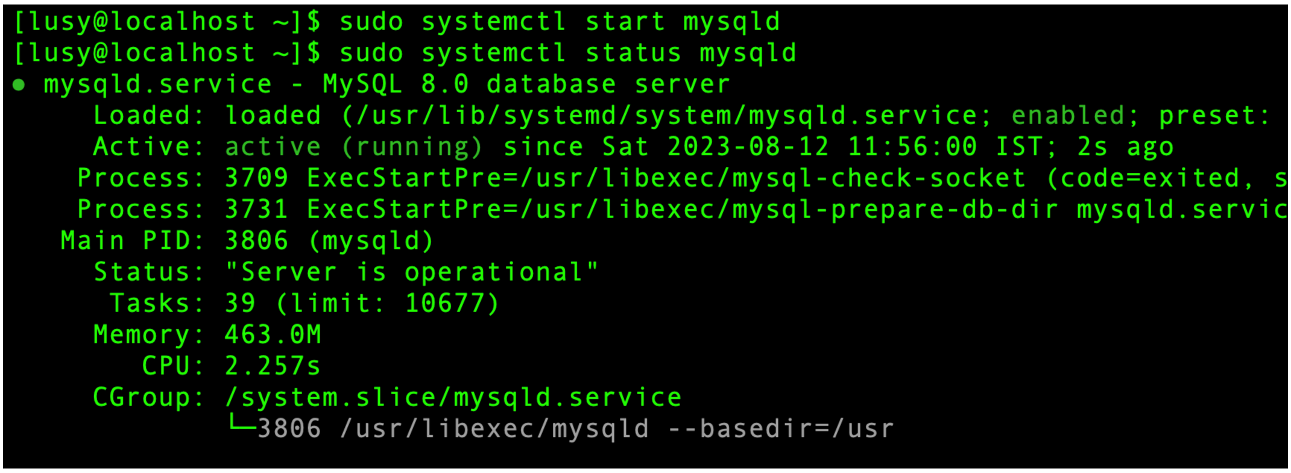
```
[lusy@localhost ~]$ sudo yum install mysql-server
[sudo] password for lusy:
Last metadata expiration check: 0:50:35 ago on Sat 12 Aug 2023 10:55:00 AM IST.
Dependencies resolved.
================================================================================================================
 Package                      Architecture            Version                         Repository           Size
================================================================================================================
Installing:
 mysql-server                 aarch64                 8.0.32-1.el9                    appstream            16 M
Installing dependencies:
 mecab                        aarch64                 0.996-3.el9.4                   appstream           343 k
 mysql-errmsg                 aarch64                 8.0.32-1.el9                    appstream           494 k
 mysql-selinux                noarch                  1.0.5-1.el9                     appstream            36 k
 protobuf-lite                aarch64                 3.14.0-13.el9                   appstream           217 k

Transaction Summary
================================================================================================================
Install  5 Packages

Total download size: 17 M
Installed size: 116 M
Is this ok [y/N]: y
Downloading Packages:
```

3) **Installed verification .**



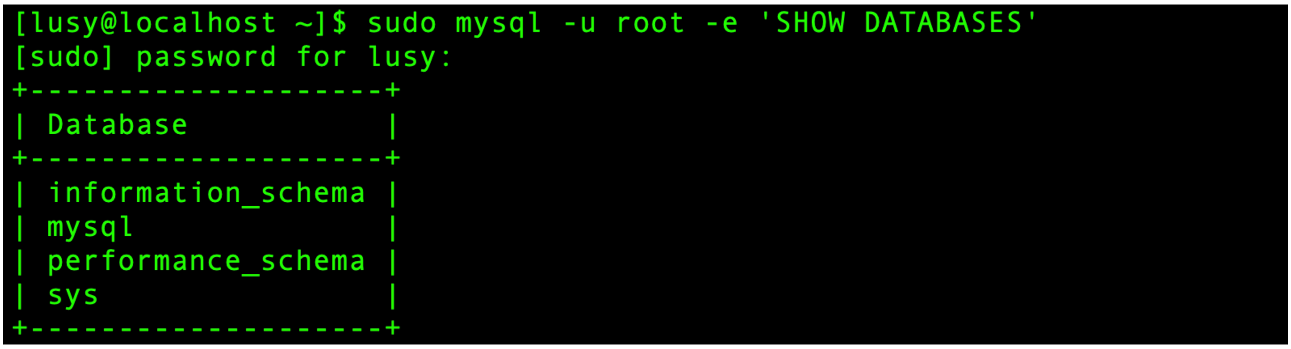
```
[lusy@localhost ~]$ sudo systemctl enable mysqld
Created symlink /etc/systemd/system/multi-user.target.wants/mysqld.service → /usr/lib/systemd/system/mysqld.
[lusy@localhost ~]$ ps fex | grep mysql
   3648 pts/0    S+     0:00      \_ grep --color=auto mysql SHELL=/bin/bash HISTCONTROL=ignoredups HISTSIZE
host PWD=/home/lusy LOGNAME=lusy XDG_SESSION_TYPE=tty MOTD_SHOWN=pam HOME=/home/lusy LANG=en_US.UTF-8 LS_COL
=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=01;37;41:su=37;41:sg=30;43:ca
4;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:*
;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:
31:*.xz=01;31:*.zst=01;31:*.tzst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;3
```

4) **Server up.**



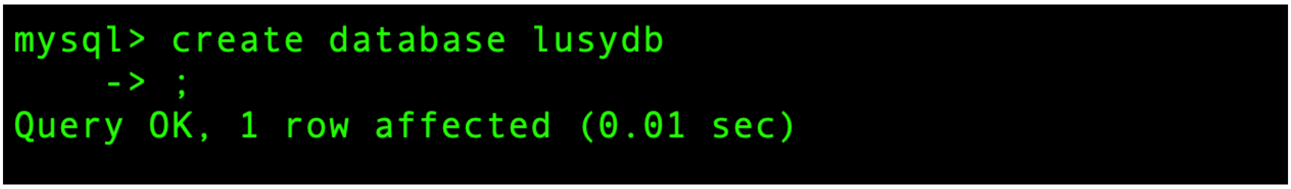
```
[lusy@localhost ~]$ sudo systemctl start mysqld
[lusy@localhost ~]$ sudo systemctl status mysqld
● mysqld.service - MySQL 8.0 database server
     Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled; preset:
     Active: active (running) since Sat 2023-08-12 11:56:00 IST; 2s ago
    Process: 3709 ExecStartPre=/usr/libexec/mysql-check-socket (code=exited, s
    Process: 3731 ExecStartPre=/usr/libexec/mysql-prepare-db-dir mysqld.servic
   Main PID: 3806 (mysqld)
     Status: "Server is operational"
      Tasks: 39 (limit: 10677)
     Memory: 463.0M
        CPU: 2.257s
     CGroup: /system.slice/mysqld.service
             └─3806 /usr/libexec/mysqld --basedir=/usr
```

5) **Show databases.**



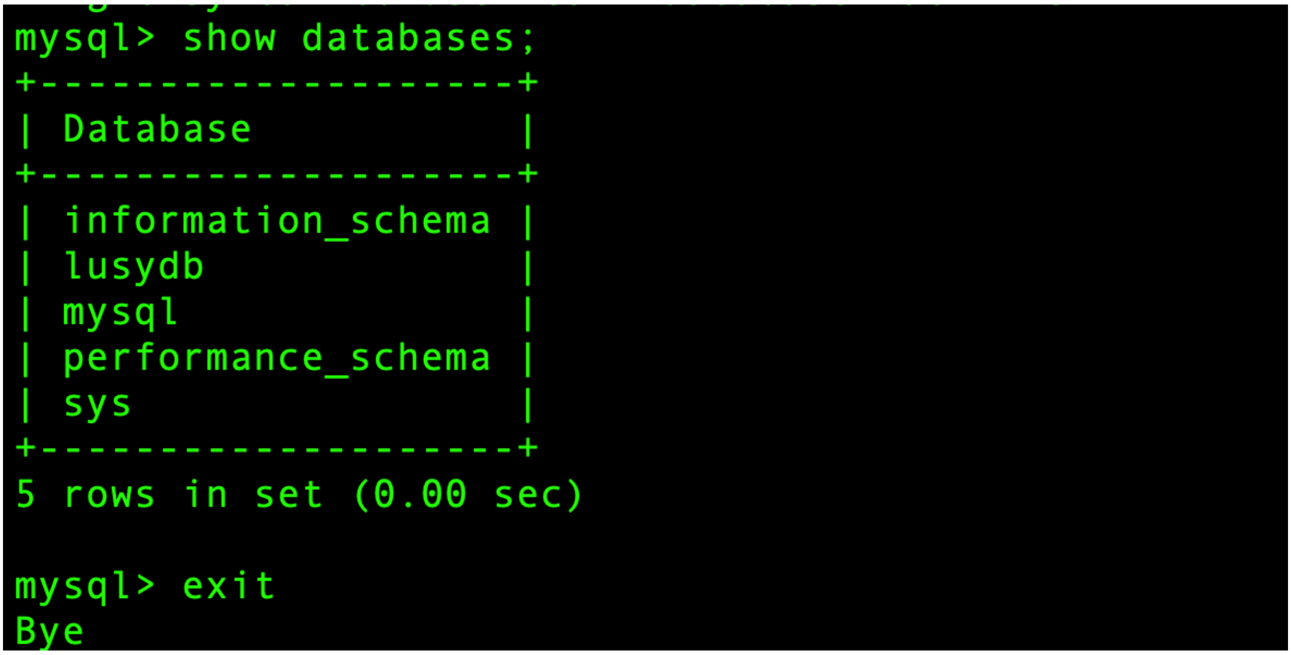
```
[lusy@localhost ~]$ sudo mysql -u root -e 'SHOW DATABASES'
[sudo] password for lusy:
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
```

6) **Create yoour temp database to backup.**



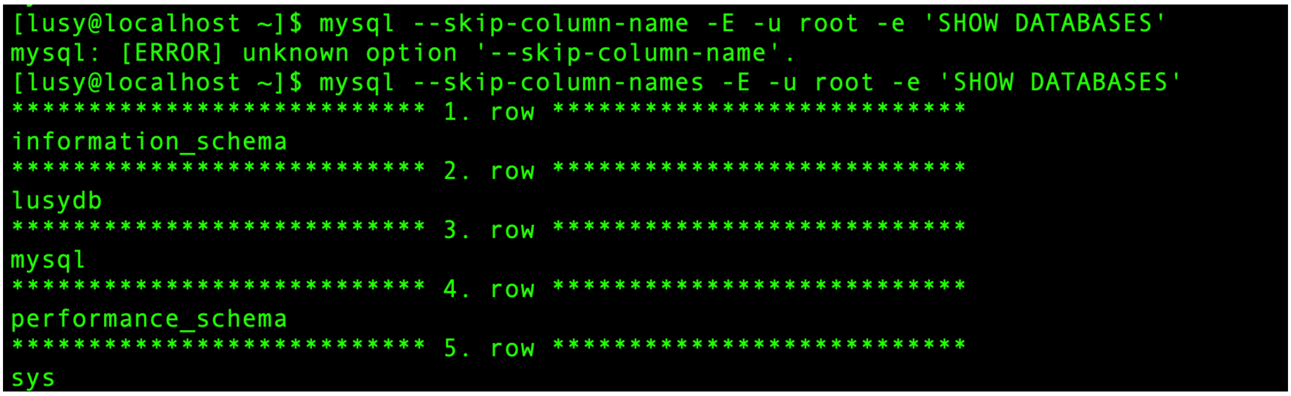
```
mysql> create database lusydb
    -> ;
Query OK, 1 row affected (0.01 sec)
```

7) **List databases.**



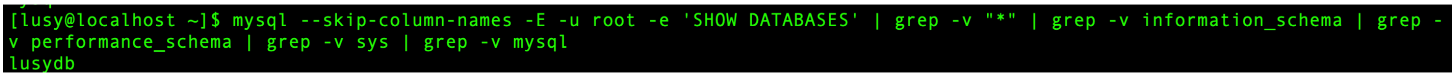
```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| lusydb             |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.00 sec)

mysql> exit
Bye
```

8) **List databases row wise to generate script line .**



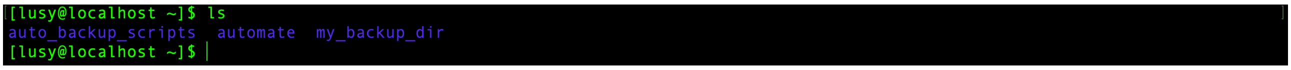
```
[lusy@localhost ~]$ mysql --skip-column-name -E -u root -e 'SHOW DATABASES'
mysql: [ERROR] unknown option '--skip-column-name'.
[lusy@localhost ~]$ mysql --skip-column-names -E -u root -e 'SHOW DATABASES'
*************************** 1. row ***************************
information_schema
*************************** 2. row ***************************
lusydb
*************************** 3. row ***************************
mysql
*************************** 4. row ***************************
performance_schema
*************************** 5. row ***************************
sys
```

9) **Finally this command will list the required database to backup.**



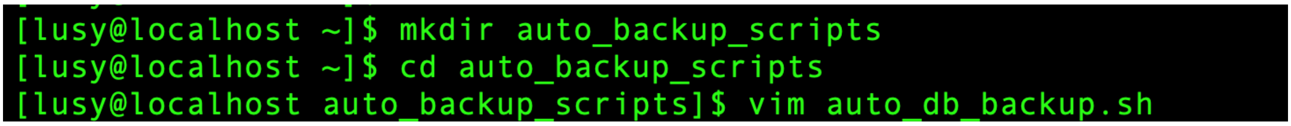
```
[lusy@localhost ~]$ mysql --skip-column-names -E -u root -e 'SHOW DATABASES' | grep -v "*" | grep -v information_schema | grep -
v performance_schema | grep -v sys | grep -v mysql
lusydb
```

10) **Created directorys for scripts and backup.**



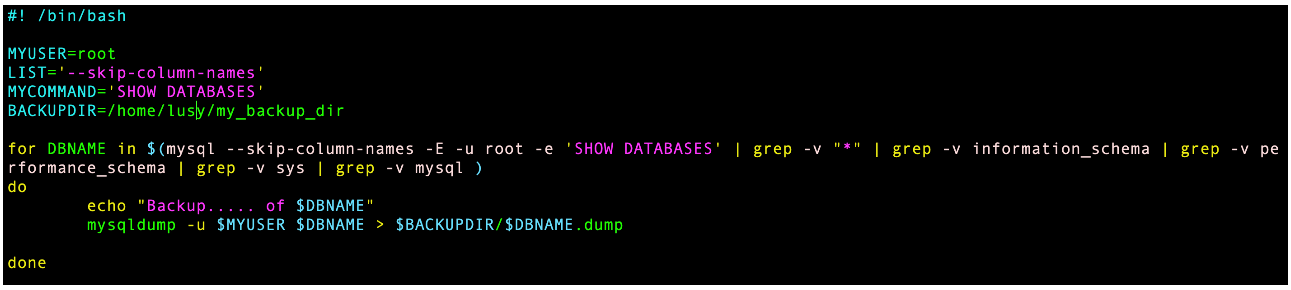
```
[lusy@localhost ~]$ ls
auto_backup_scripts  automate  my_backup_dir
[lusy@localhost ~]$
```

11) **Get in to script directory and write the script.**



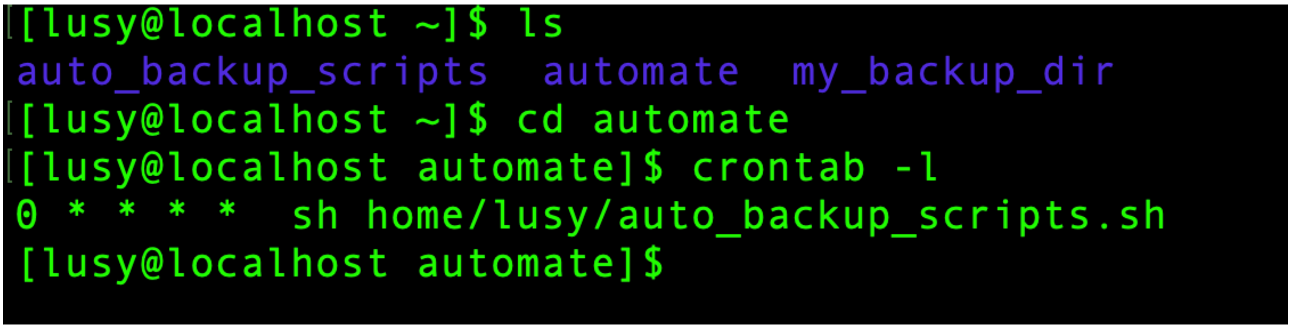
```
[lusy@localhost ~]$ mkdir auto_backup_scripts
[lusy@localhost ~]$ cd auto_backup_scripts
[lusy@localhost auto_backup_scripts]$ vim auto_db_backup.sh
```

12)**Script screenshot.**



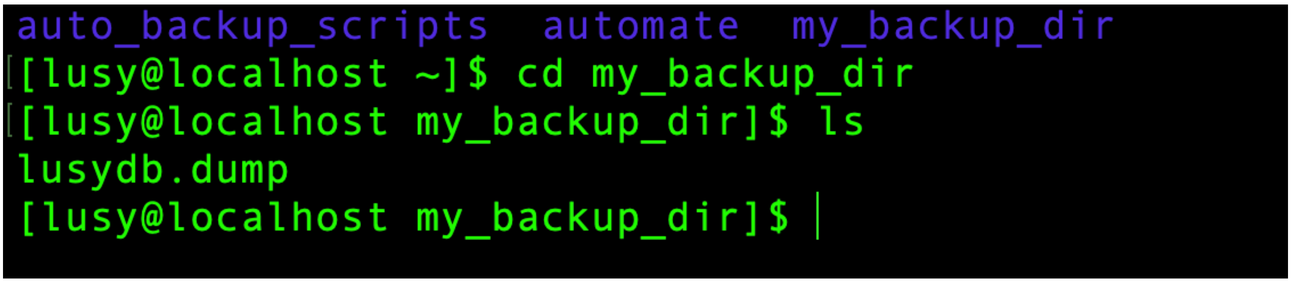
```
#! /bin/bash

MYUSER=root
LIST='--skip-column-names'
MYCOMMAND='SHOW DATABASES'
BACKUPDIR=/home/lusy/my_backup_dir

for DBNAME in $(mysql --skip-column-names -E -u root -e 'SHOW DATABASES' | grep -v "*" | grep -v information_schema | grep -v pe
rformance_schema | grep -v sys | grep -v mysql )
do
        echo "Backup..... of $DBNAME"
        mysqldump -u $MYUSER $DBNAME > $BACKUPDIR/$DBNAME.dump

done
```

13)**Assign job using crontab -l(list) | crontab -e(editing).**



```
[lusy@localhost ~]$ ls
auto_backup_scripts  automate  my_backup_dir
[lusy@localhost ~]$ cd automate
[lusy@localhost automate]$ crontab -l
0 * * * *  sh home/lusy/auto_backup_scripts.sh
[lusy@localhost automate]$
```

14)**Check weather your script is working or not.**



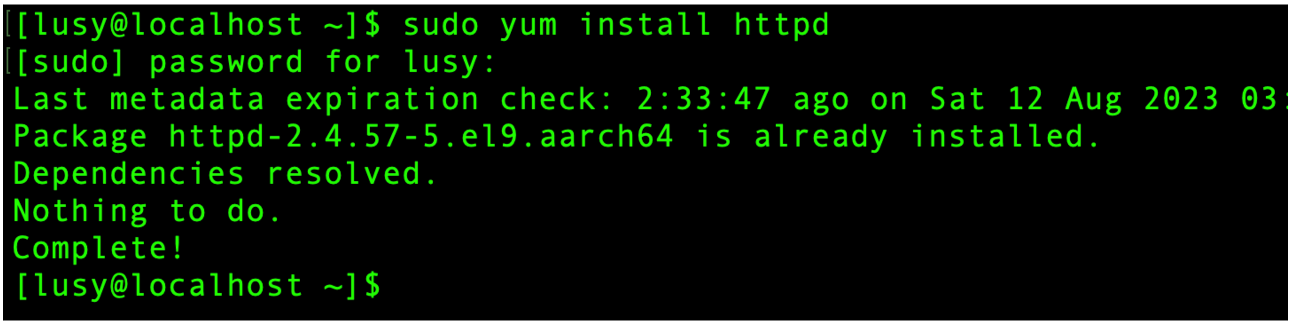
```
auto_backup_scripts  automate  my_backup_dir
[lusy@localhost ~]$ cd my_backup_dir
[lusy@localhost my_backup_dir]$ ls
lusydb.dump
[lusy@localhost my_backup_dir]$
```

===

TASK 2

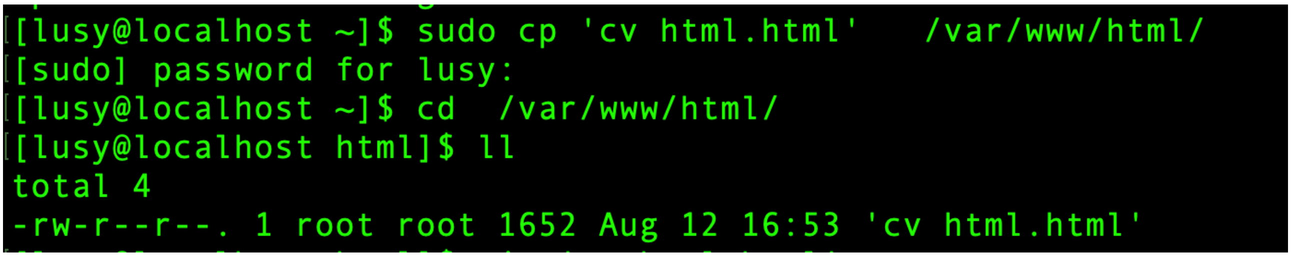
Create a backup for application server file for everyday (using anacrontab)

1) **install application server(httpd).**



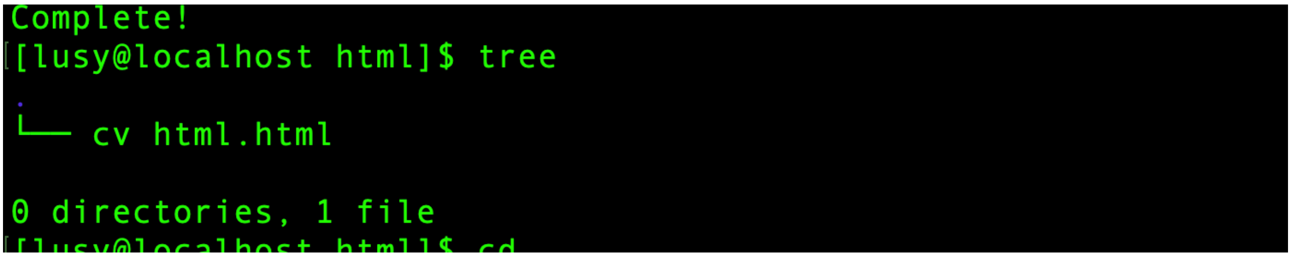
```
[lusy@localhost ~]$ sudo yum install httpd
[sudo] password for lusy:
Last metadata expiration check: 2:33:47 ago on Sat 12 Aug 2023 03:
Package httpd-2.4.57-5.el9.aarch64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[lusy@localhost ~]$
```

2) **I had my template cv which I placed in server in var//www/html/ which is the default to fetch in files .**



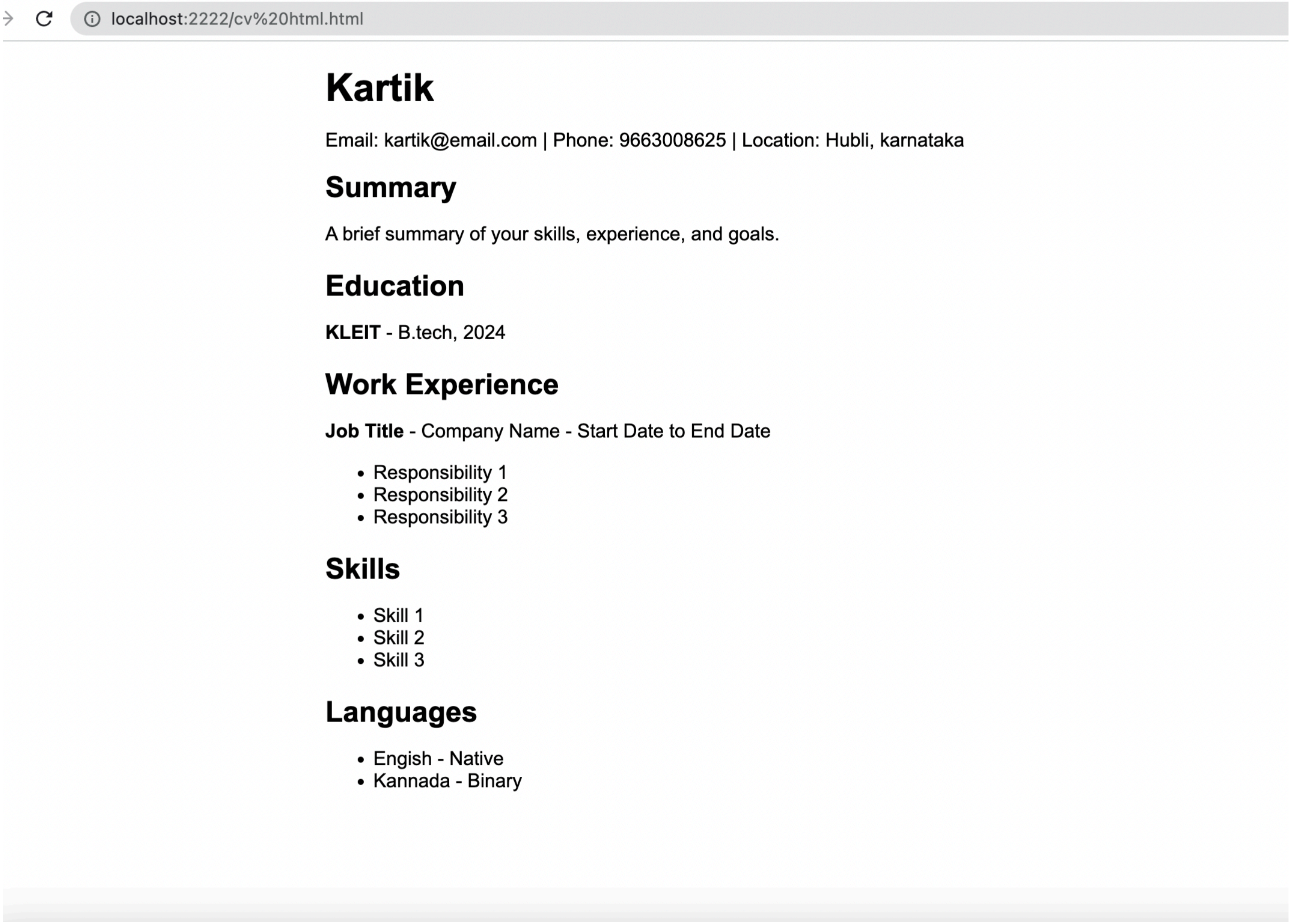
```
[lusy@localhost ~]$ sudo cp 'cv html.html'   /var/www/html/
[sudo] password for lusy:
[lusy@localhost ~]$ cd  /var/www/html/
[lusy@localhost html]$ ll
total 4
-rw-r--r--. 1 root root 1652 Aug 12 16:53 'cv html.html'
```

3) **List the files in the www folder to backup.**



```
Complete!
[lusy@localhost html]$ tree
.
└── cv html.html

0 directories, 1 file
[lusy@localhost html]$ cd
```

4) Check weather the page is launching or not.



localhost:2222/cv%20html.html

Kartik

Email: kartik@email.com | Phone: 9663008625 | Location: Hubli, karnataka

Summary

A brief summary of your skills, experience, and goals.

Education

KLEIT - B.tech, 2024

Work Experience

Job Title - Company Name - Start Date to End Date

- Responsibility 1
- Responsibility 2
- Responsibility 3

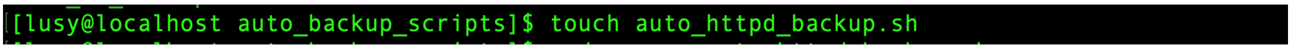
Skills

- Skill 1
- Skill 2
- Skill 3

Languages

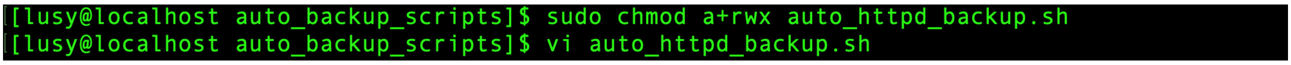
- Engish - Native
- Kannada - Binary

5) Create your script to back up the application server files.



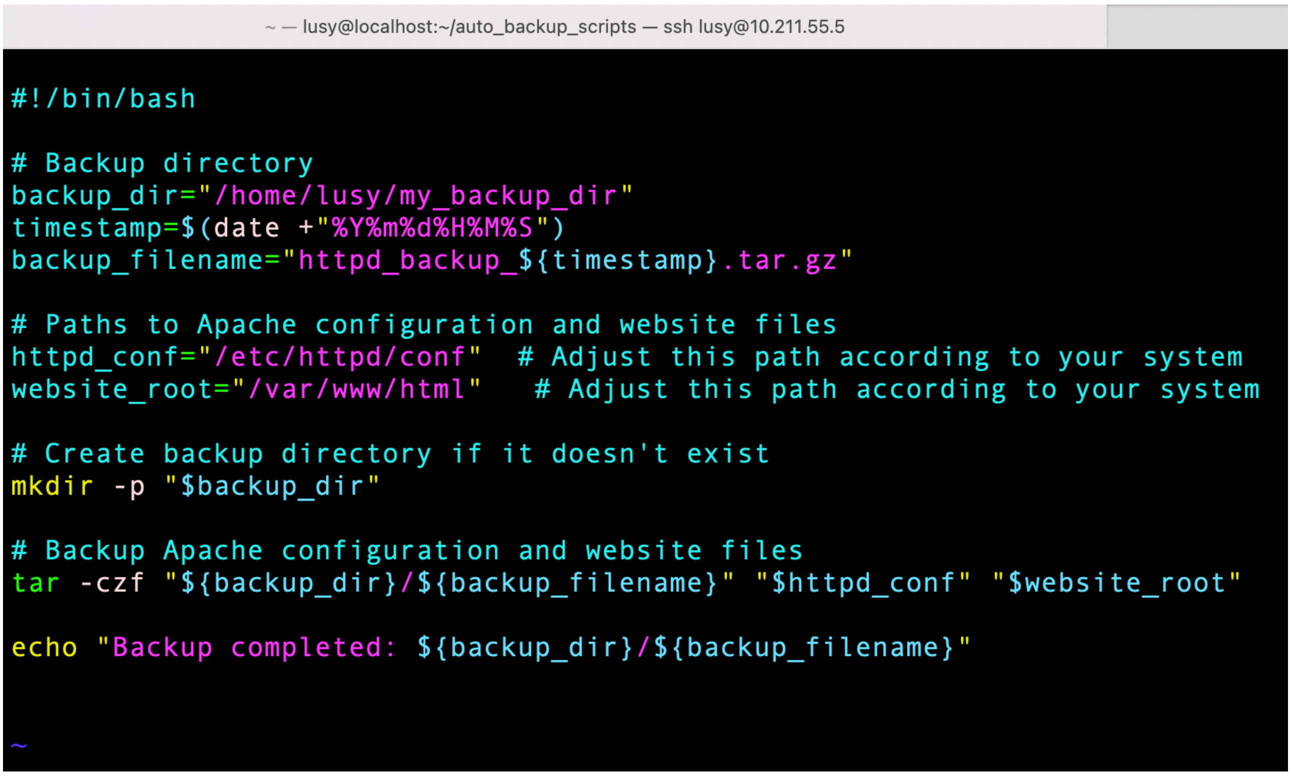
```
[lusy@localhost auto_backup_scripts]$ touch auto_httpd_backup.sh
```

6) Give permission to the script .



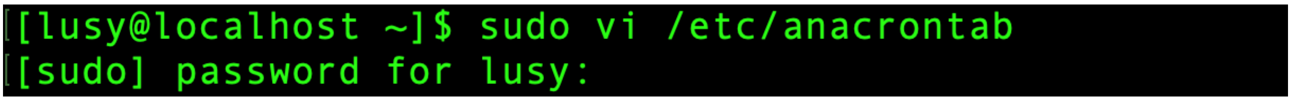
```
[lusy@localhost auto_backup_scripts]$ sudo chmod a+rwx auto_httpd_backup.sh
[lusy@localhost auto_backup_scripts]$ vi auto_httpd_backup.sh
```

7) **Write the script file .**


~ — lusy@localhost:~/auto_backup_scripts — ssh lusy@10.211.55.5

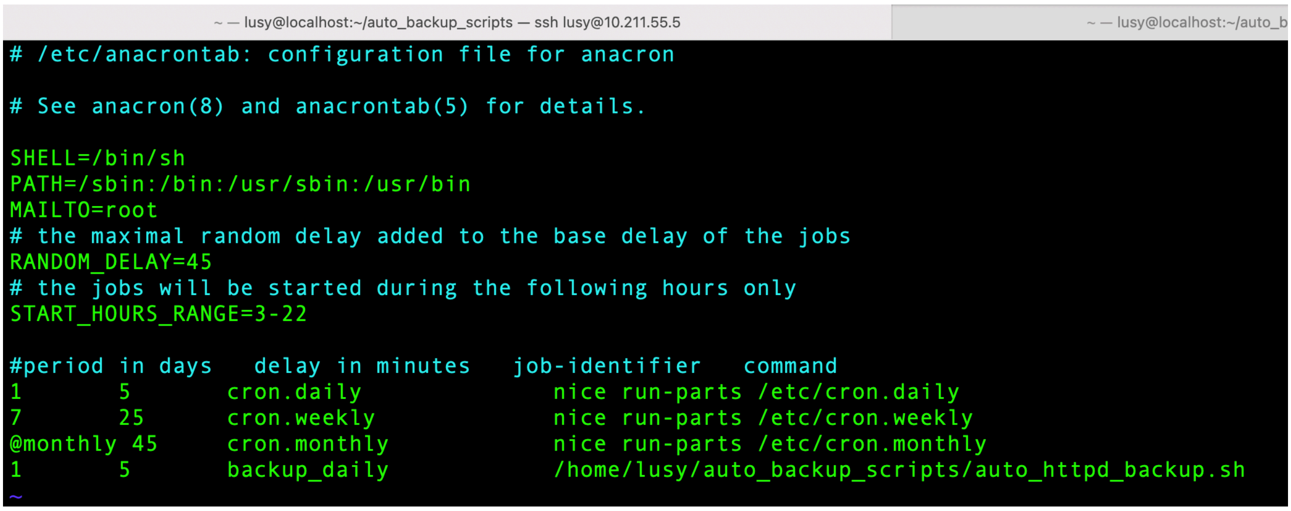
```
#!/bin/bash

# Backup directory
backup_dir="/home/lusy/my_backup_dir"
timestamp=$(date +"%Y%m%d%H%M%S")
backup_filename="httpd_backup_${timestamp}.tar.gz"

# Paths to Apache configuration and website files
httpd_conf="/etc/httpd/conf"  # Adjust this path according to your system
website_root="/var/www/html"   # Adjust this path according to your system

# Create backup directory if it doesn't exist
mkdir -p "$backup_dir"

# Backup Apache configuration and website files
tar -czf "${backup_dir}/${backup_filename}" "$httpd_conf" "$website_root"

echo "Backup completed: ${backup_dir}/${backup_filename}"


~
```

8) **Create the anacrontab (by listing) .**



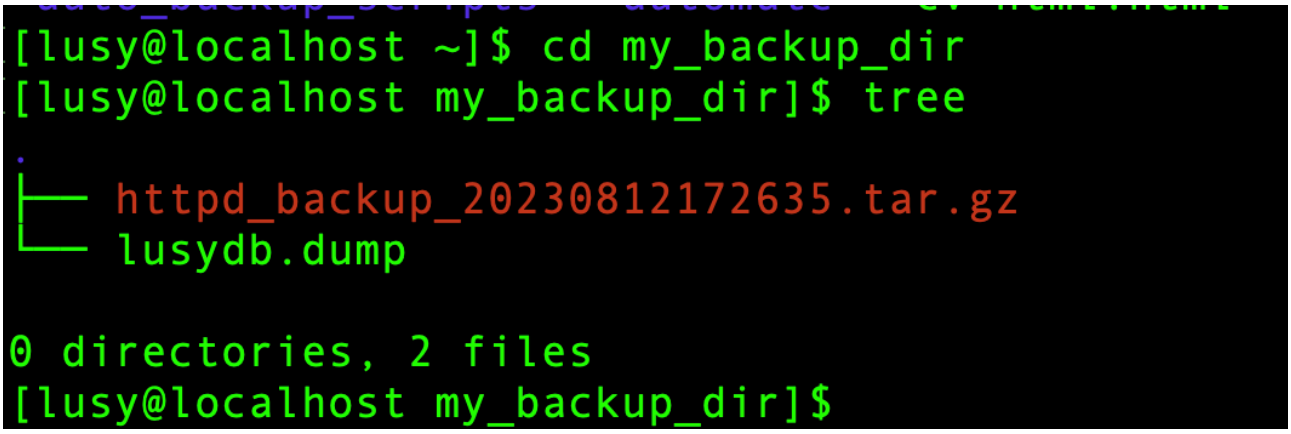
```
[lusy@localhost ~]$ sudo vi /etc/anacrontab
[sudo] password for lusy:
```

9) **Add the schedule in to anacrontab file .**


~ — lusy@localhost:~/auto_backup_scripts — ssh lusy@10.211.55.5
~ — lusy@localhost:~/auto_b

```
# /etc/anacrontab: configuration file for anacron

# See anacron(8) and anacrontab(5) for details.

SHELL=/bin/sh
PATH=/sbin:/bin:/usr/sbin:/usr/bin
MAILTO=root
# the maximal random delay added to the base delay of the jobs
RANDOM_DELAY=45
# the jobs will be started during the following hours only
START_HOURS_RANGE=3-22

#period in days   delay in minutes   job-identifier   command
1       5       cron.daily              nice run-parts /etc/cron.daily
7       25      cron.weekly             nice run-parts /etc/cron.weekly
@monthly 45     cron.monthly            nice run-parts /etc/cron.monthly
1       5       backup_daily            /home/lusy/auto_backup_scripts/auto_httpd_backup.sh
~
```

10)Test weather your script is working or not.



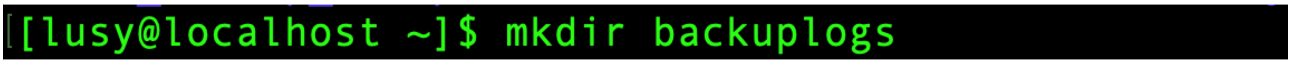
```
[lusy@localhost ~]$ cd my_backup_dir
[lusy@localhost my_backup_dir]$ tree
.
├── httpd_backup_20230812172635.tar.gz
└── lusydb.dump

0 directories, 2 files
[lusy@localhost my_backup_dir]$
```

===

TASK 3

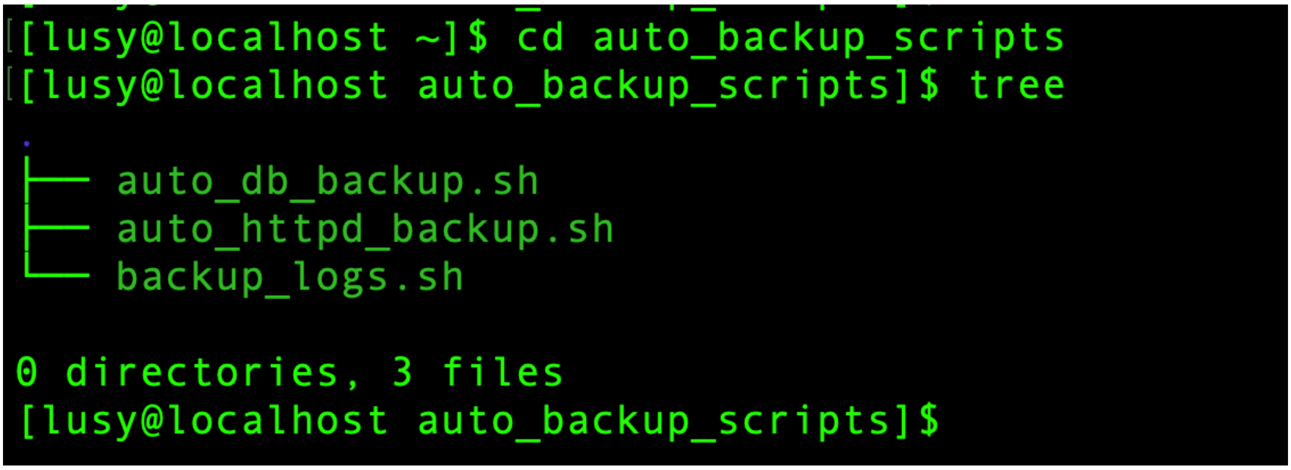
Create a folder called backuplogs and copy the logfiles to it every one week.

1) **Create a folder called backuplogs.**



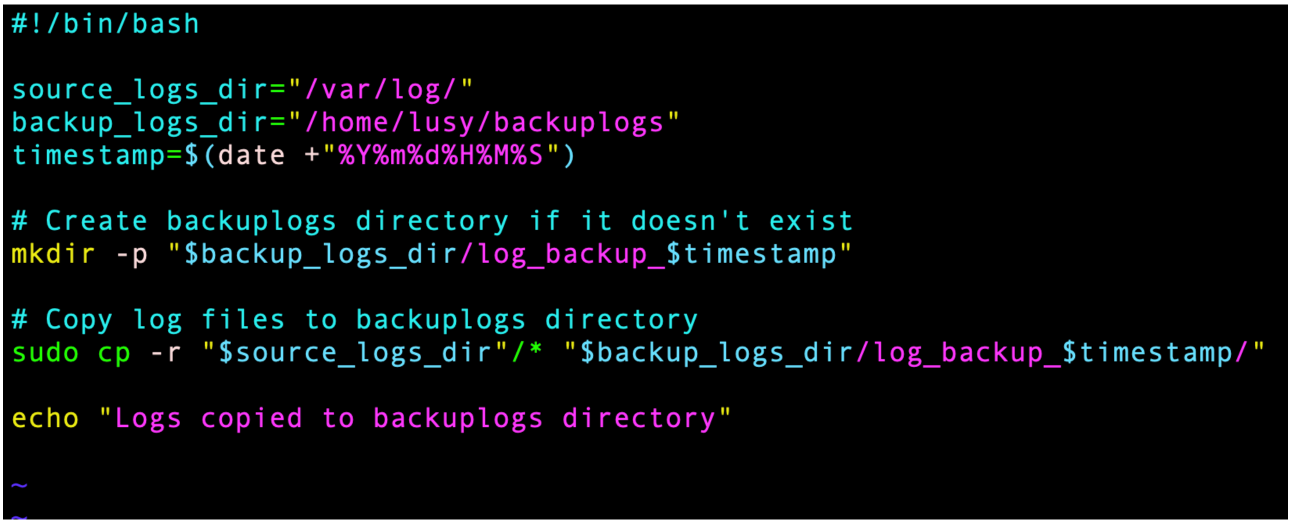
```
[lusy@localhost ~]$ mkdir backuplogs
```

2) **Create the script and give the permission too execute.**



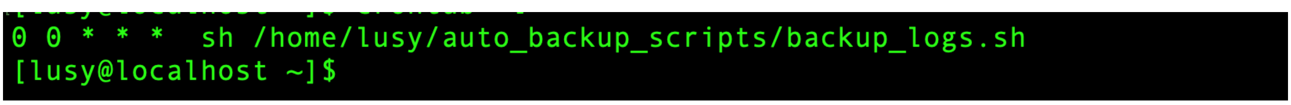
```
[lusy@localhost ~]$ cd auto_backup_scripts
[lusy@localhost auto_backup_scripts]$ tree
.
├── auto_db_backup.sh
├── auto_httpd_backup.sh
└── backup_logs.sh

0 directories, 3 files
[lusy@localhost auto_backup_scripts]$
```

3) **Write the script .**



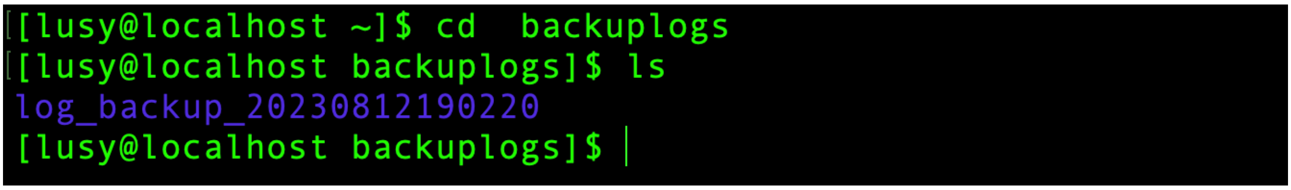
```
#!/bin/bash

source_logs_dir="/var/log/"
backup_logs_dir="/home/lusy/backuplogs"
timestamp=$(date +"%Y%m%d%H%M%S")

# Create backuplogs directory if it doesn't exist
mkdir -p "$backup_logs_dir/log_backup_$timestamp"

# Copy log files to backuplogs directory
sudo cp -r "$source_logs_dir"/* "$backup_logs_dir/log_backup_$timestamp/"

echo "Logs copied to backuplogs directory"

~
```

4) **Shedule it using crontab command.**



```
0 0 * * *  sh /home/lusy/auto_backup_scripts/backup_logs.sh
[lusy@localhost ~]$
```

5) **Verify weather the script is working fine or not.**



```
[lusy@localhost ~]$ cd  backuplogs
[lusy@localhost backuplogs]$ ls
log_backup_20230812190220
[lusy@localhost backuplogs]$ 
```