

CYSE 270: Linux System for Cybersecurity

Assignment-9

Task A - Backup your system (Using crontab) [100 points]

Scenario: Performing system backup can be time-consuming, and the process is often overlooked. For this scenario:

1. (10 Points) Create a new user Alice (with home directory).

```
damis001@kali:~$ sudo useradd -m Alice  
[sudo] password for damis001:
```

2. (50 Points) Write a shell script that backups Alice's home directory by creating a tar file (tape archive), using the following steps:

a. Do the following:

- Take 2 inputs with their values- your MIDAS name and current date (for example, midas=Mohammed).
- Create a variable named as filename that should be assigned the value as MIDAS-date (example output after executing the script would be like, Mohammed-2024.11.04-22.08.01.tar.gz).
- Using tar command, create a tape archive for Alice's home directory (/home/Alice) and the filename created above (in step-2-ii). (Please learn about tar command in Linux for its usage)

b. Move the tape archive file/tar file (created in step 2-iii) to /var/backups/ directory using correct command in linux.

c. To optimize the disk usage, pick a compression algorithm (bz2, gzip, or xv) to compress the tar file you created in /var/backups/ in the previous step-2b.

```
#!/bin/bash
read -p "Enter your MIDAS name: " midas
current_date=$(date +"%Y.%m.%d-%H.%M.%S")
filename="${midas} ${current_date}.tar.gz"
sudo tar -czf "/tmp/${filename}" /home/Alice
sudo mv "/tmp/${filename}" /var/backups/
echo "Backup complete. File moved to /var/backups/${filename}"
```

3. (30 Points) Create a crontab file to keep the scheduled task running for 3 minutes, then check the contents in the /var/backups directory. Your output should be look similar to the following:

```
└─$ ls /var/backups
alternatives.tar.0  apt.extended_states.1.gz  dpkg.diversions.0  dpkg.status.0  dxarf002-2025.11.11-17.27.24.tar.gz
apt.extended_states.0  dpkg.arch.0  dpkg.statoverride.0  dxarf002-2025.11.11-17.29.31.tar.gz  dxarf002-2025.11.11-17.29.16.tar.gz
```

4. (10 Points) Cancel the crontab jobs.

```
└─(damis001@kali)-[~]
└─$ crontab -r
```