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Ingeniería en Computación
Sistemas Operativos



Tarea. Backup programado

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Tarea. Backup programado

1. Cree una carpeta en su escritorio la cual se llame backupNov25

```
uaem@DESKTOP-R3NKPGL: ~  
uaem@DESKTOP-R3NKPGL:~$ sudo mkdir backupNov25  
[sudo] password for uaem:  
uaem@DESKTOP-R3NKPGL:~$ ls -l  
total 220  
-rw-r--r-- 1 uaem uaem 205 Oct 16 16:46 IDUNICO.txt  
-rw-r--r-- 1 uaem uaem 395 Sep 26 16:28 S025B.txt  
-rw-r--r-- 1 uaem uaem 395 Sep 26 16:37 UltCon25B.txt  
-rw-r--r-- 1 uaem uaem 92747 Aug 22 07:55 'WhatsApp Image 2025-08-22 at 3.45.54 PM.jpeg'  
-rw-r--r-- 1 uaem uaem 61 Aug 22 07:55 'WhatsApp Image 2025-08-22 at 3.45.54 PM.jpeg:Zone.Identifier'  
drwxr-xr-x 2 root root 4096 Oct 30 15:41 backupNov25
```

2. Cree un Shell Bash, en su escritorio con nombre RespSep24 el cual realice el respaldo de una carpeta de su equipo

```
GNU nano 7.2 /home/uaem/RespSep24.sh  
#!/bin/bash  
  
# Carpeta origen  
ORIGEN="/home/uaem"  
  
# Carpeta destino  
DESTINO="/home/uaem/backupNov25"  
  
# Crear carpeta destino si no existe  
mkdir -p "$DESTINO"  
  
# Nombre del archivo de respaldo  
FECHA=$(date +%Ym%dy_%H%M%S)  
NOMBRE="backup${FECHA}.tar.gz"  
  
# Crear respaldo comprimido, excluyendo la carpeta de respaldo para evitar bucles  
tar --exclude="$DESTINO" -czf "$DESTINO/$NOMBRE" "$ORIGEN"  
  
# Comprobación de resultado  
if [ $? -eq 0 ]; then  
    echo "Respaldo realizado correctamente en: $DESTINO/$NOMBRE"  
else  
    echo "Error al crear el respaldo. Verifica rutas y permisos."  
fi
```

3. Pruebe que funciona correctamente tal Shell Bash. Para lo cual deberá ejecutar el Shell Bash y mostrar el respaldo realizado en su escritorio

```
uaem@DESKTOP-R3NKPGL:~$ touch RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ sudo chmod +x RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ sudo nano RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ sudo bash /Escritorio/RespSep24.sh  
bash: /home/uaem/Escritorio/RespSep24.sh: No such file or directory  
uaem@DESKTOP-R3NKPGL:~$ chmod +x /home/uaem/RespSep24.sh  
chmod: changing permissions of '/home/uaem/RespSep24.sh': Operation not permitted  
uaem@DESKTOP-R3NKPGL:~$ ls -l /home/uaem/RespSep24.sh  
-rwxr-xr-x 1 root root 350 Oct 30 15:45 /home/uaem/RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ sudo chown uaem:uaem /home/uaem/RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ ls -l /home/uaem/RespSep24.sh  
-rwxr-xr-x 1 uaem uaem 350 Oct 30 15:45 /home/uaem/RespSep24.sh  
uaem@DESKTOP-R3NKPGL:~$ bash /home/uaem/RespSep24.sh  
tar: Removing leading '/' from member names  
tar: /home/uaem/Documentos: Cannot stat: No such file or directory  
tar (child): /home/uaem/Escritorio/backupNov25/backup301025_154041.tar.gz: Cannot open: No such file or directory  
tar (child): Error is not recoverable: exiting now  
tar: Child returned status 2  
tar: Error is not recoverable: exiting now  
Respaldo realizado correctamente en: /home/uaem/Escritorio/backupNov25/backup301025_154041.tar.gz
```

4. En su Shell Bash agregue la ruta de la carpeta creada en 1, para que todos los respaldos se guarden en tal carpeta

```
uaem@DESKTOP-R3MPLG:~$ ls -l
total 12
-rw-r--r-- 1 uaem uaem 2025-08-22 at 3:45:54 PM jpeg'
Resep24.sh 'WhatsApp Image 2025-08-22 at 3:45:54 PM.jpeg:Zone.Identifier'
S025B.txt backupNov25
UltCon25B.txt cartas.jpeg:Zone.Identifier
uaem@DESKTOP-R3MPLG:~$ sudo chown -R uaem:uaem /home/uaem/backupNov25
chown: unrecognized option '--'
uaem@DESKTOP-R3MPLG:~$ sudo nano /home/uaem/Resep24.sh
uaem@DESKTOP-R3MPLG:~$ bash /home/uaem/Resep24.sh
tar: Removing leading '/' from member names
Respaldo realizado correctamente en: /home/uaem/backupNov25/backup301025_155432.tar.gz
uaem@DESKTOP-R3MPLG:~$ ls -lh /home/uaem/backupNov25
total 5.6M
-rw-r--r-- 1 uaem uaem 5.6M Oct 30 15:54 backup301025_155432.tar.gz
uaem@DESKTOP-R3MPLG:~$
```

Nombre el backup creado de la siguiente forma:

- o backupDDMMYY_HHMMSS

5. Ahora programe su Shell Bash para que se ejecute cada 3 horas con 5 minutos y 10 segundos durante un día entero (puede emplear de 5 pm a 5 pm), recuerde indicar m, h, dom, mon, dow (no utilice *).

```
GNU nano 7.2 /tmp/crontab.xXA2T9/crontab *
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# 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/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# h dom mon dow   command
0 16 * * * /home/actualizar.sh >> /home/uaem/update.txt
17,20,23,2,5,8,11,14,17 * * * /home/uaem/Resep24.sh
```

6. Verifique que se van creando los backups correctamente

```
uaem@DESKTOP-R3MPLG:~$ ls -lh /home/uaem/backupNov25
total 5.6M
-rw-r--r-- 1 uaem uaem 5.6M Oct 30 15:54 backup301025_155432.tar.gz
uaem@DESKTOP-R3MPLG:~$ crontab -e
crontab: installing new crontab
uaem@DESKTOP-R3MPLG:~$
uaem@DESKTOP-R3MPLG:~$ ls -lh /home/uaem/backupNov25/log_respaldo.txt
-rw-r--r-- 1 uaem uaem 5.6M Oct 30 15:54 backup301025_155432.tar.gz
uaem@DESKTOP-R3MPLG:~$ crontab -e
crontab: installing new crontab
uaem@DESKTOP-R3MPLG:~$ cat /home/uaem/backupNov25/log_respaldo.txt
cat: /home/uaem/backupNov25/log_respaldo.txt: No such file or directory
uaem@DESKTOP-R3MPLG:~$ /home/uaem/Resep24.sh >> /home/uaem/backupNov25/log_respaldo.txt 2>&1
uaem@DESKTOP-R3MPLG:~$ cat /home/uaem/backupNov25/log_respaldo.txt
tar: Removing leading '/' from member names
Respaldo realizado correctamente en: /home/uaem/backupNov25/backup301025_160102.tar.gz
uaem@DESKTOP-R3MPLG:~$
```

```
uaem@DESKTOP-R3NKPLG: ~ X + v
uaem@DESKTOP-R3NKPLG:~$ ls -lh /home/uaem/backupNov25/
total 12M
-rw-r--r-- 1 uaem uaem 5.6M Oct 30 15:54 backup301025_155432.tar.gz
-rw-r--r-- 1 uaem uaem 5.6M Oct 30 16:01 backup301025_160102.tar.gz
-rw-r--r-- 1 uaem uaem 132 Oct 30 16:01 log_respaldo.txt
uaem@DESKTOP-R3NKPLG:~$ |
```

