

Exp:-01

Date:- 7/1/2025

Roll No:- A009

Aim:- Backup Process using TAR

Theory :-

Step 1:- open Terminal

- Press Ctrl + Alt + T to open the terminal

Step 2:- Create backup

- use tar to backup your desired files or directories.

```
tar -czvf /path/to/backup_location/backup_name.tar.gz /path/to/source_directory
```

- Example:-

```
tar -czvf /home/user/backup_documents.tar.gz /home/user/Documents
```

Step 3: Verify Backup

- Check the backup file :

```
ls /path/to/backup_location/backup_name.tar.gz
```

- For backup and restore, click set up backup and follow prompts to back up to an external drive.

2] Two-step authentication (2FA) or Multi-factor Authentication (MFA)

adds an extra layer of security to your accounts by requiring two or more verification factors to gain access. This prevents unauthorised access even if someone knows your password.

1) Something you know:- This is typically your password or pin.

2) Something you have:- This is a device or token, such as smartphone, security key, or a one-time passcode (OTP) sent via text or email.

3) Something you are: This includes biometric data, such as fingerprints, facial recognition or iris scanning.

* Example of two-step authentication in Whatsapp:-

2. Restore Process Using TAR:-

- Step 1: open terminal
Press `Ctrl + Alt + T` to open the terminal
- Step 2: Create Backup
- Use `tar` to back up your desired files or directories.
- Step 3: Verify backup: check the backup file:
`/path/to/backup_location/backup_name.tar.gz`

2] Backup process in windows

Step 1: open backup Tool

windows 10/11: open
Settings > Update &
Security > Backup

Step 2: Choose Backup Method

- i) select "Add a drive" to choose an external drive or network location.
- ii) Alternatively, use File History or Backup and Restore (windows 7) for specific file backup.

Step 3: Create Backup

- For File History: Turn on File History, then select More options to select specific folder and schedule backups.

Whatsapp supports two-step verification to add an extra layer of security.

Step 2:- Two-step authentication in Action

- Login or Verification: After enabling two-step verification, when you try to re-register your phone number on whatsapp you will be asked for your 6-digit PIN.
- Email:- If you forget the PIN, you can receive a link to disable two-step verification sent to your registered Email address. This is an additional security feature.

To restore file in Ubuntu from a backup created using the tar command, you can use the tar command with the -x option to extract the contents of the archive.

✂ Restore Command for Ubuntu using tar:
bash

```
tar -Xzvf /path/to/backup_name.tar.gz -C /path/to/restore_directory
```

Explanation:-

- 1) -x:- Extract the files from the archive
- 2) -z :- Decompress the archive, if it is compressed
- 3) -v: verbose mode (optional, shows the files being restored.)
- 4) -f: specifies the file to restore.
- 5) -c: specifies the directory to extract the files into.

∴ Conclusion:- Hence, we learned and performed how to setup operating system updates and backup and restore system.

~~Pranav~~