

linux assignment

1. What is a text editor in Linux?

A **text editor** is a program used to **create, view, and edit text files** in Linux.

Functions:

- Create and modify files
 - Insert, delete, and search text
 - Edit programs and configuration files
-

2. Explain Linux VI editor and its modes

VI editor is a command-based text editor in Linux.

Modes:

- **Command mode** – navigation and editing commands
 - **Insert mode** – text insertion
 - **Last line mode** – save, quit, search commands
-

3. Important VI commands

- `i` – insert mode
 - `dd` – delete line
 - `yy` – copy line
 - `:w` – save
 - `:q` – quit
 - `:wq` – save and quit
-

4. Standard files in Linux

Standard files handle input and output.

- **stdin (0)** – input from keyboard
- **stdout (1)** – output to screen
- **stderr (2)** – error messages

Example:

```
ls invalidfile
```

5. Linux filter commands

Filter commands process input data.

- **grep** – search text

```
grep "root" /etc/passwd
```

- **cut** – extract columns

```
cut -d: -f1 file
```

- **wc** – count lines/words

```
wc -l file
```

- **tr** – translate characters

```
tr a-z A-Z
```

6. Input and output redirection

Redirection changes input/output location.

- < input
- > output overwrite
- >> output append
- 2> error redirection

Example:

```
ls > out.txt
```

7. Linux pipes and tee

- **Pipe** () sends output of one command to another

```
ls | wc -l
```

- **tee** displays and saves output

```
ls | tee file.txt
```

8. Locate files using find

The **find** command searches files.

- By name:

```
find / -name file.txt
```

- By type:

```
find / -type f
```

9. Linux user management

Linux supports multiple users.

Types of users:

- **Root user** – full control
- **System users** – services
- **Normal users** – regular users

10. File ownership and permissions

Each file has **owner, group, and others**.

Permissions:

- r – read
- w – write
- x – execute

Change permissions:

```
chmod 755 file
```