**Q1. Basic Command**

**a. Create a file named demo.txt inside the Movies directory:**

touch Movies/demo.txt

**b. Copy hello.txt file from Desktop to Downloads directory:**

cp Desktop/hello.txt Downloads/

**c. Display all the files from the Movies directory:**

ls

**d. Display the first 15 lines of demo.txt file:**

head -n 15 Movies/demo.txt

**e. Using cat command, create a new file and write data to the file:**

cat > newfile.txt

**f. Read the file content of demo.txt:**

cat Movies/demo.txt

# Q 2. Explain absolute and relative path

**Absolute Path**

An **absolute path** specifies the complete path to a file or directory from the root directory (/ in Linux/Unix or the drive letter in Windows, like C:\). It is independent of the current working directory.

- **Characteristics**:
    - Always starts from the root directory (/ in Linux or a drive like C:\ in Windows).
    - It provides the full location of a file or directory.
    - It is unambiguous and unique for every file or directory.
- **Example**:
    - In Linux: /home/user/Movies/demo.txt
    - In Windows: C:\Users\John\Documents\file.txt

**Relative Path**

A **relative path** specifies the path to a file or directory in relation to the current working directory. It does not start from the root directory.

- **Characteristics**:

- o  Depends on the current working directory.

- o  May include . (current directory) or .. (parent directory) to navigate directories.

- o  Shorter and often more convenient than absolute paths for temporary or local navigation.

- **Example**:

  - o  If the current directory is /home/user/, the relative path to demo.txt in the Movies directory is:

    - ▪  Movies/demo.txt

  - o  To navigate to the parent directory from /home/user/, use:

    - ▪  ../

**Key Difference**

| Aspect | Absolute Path | Relative Path |
| --- | --- | --- |
| Starting Point | Always starts from root (/ or C:\) | Starts from the current directory |
| Dependency | Independent of current directory | Depends on current directory |
| Use Case | Clear and unambiguous location | Convenient for local file navigation |
| Example | /home/user/Movies/demo.txt | Movies/demo.txt (if in /home/user) |