



# GATI SHAKTI VISHWAVIDYALAYA

## ASSIGNMENT 1

Linux File Handling and Directory Management

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# 1 Objective

The objective of this assignment is to understand and practice basic Linux commands related to file handling and directory management. The tasks include creating files and directories, viewing file contents, counting text statistics, organizing project structures, and moving files using wildcards.

## 2 Part 1: Creating a File and Adding Content

### 2.1 Task Description

- Create a directory named `Assignment1`.
- Create a file named `notes.txt` inside it.
- Add the text “UNIX is fun!” to the file using a single command.

### 2.2 Commands Used

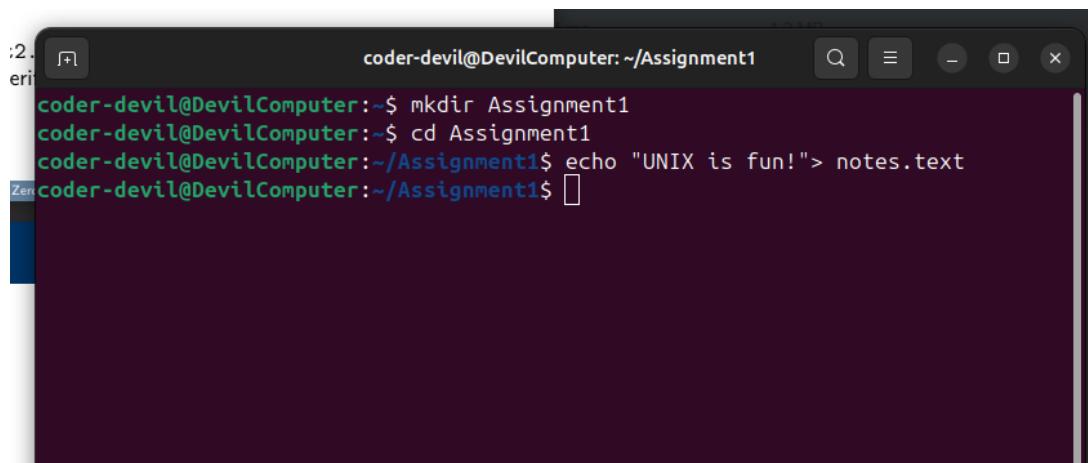
```
mkdir Assignment1  
cd Assignment1  
echo "UNIX is fun!" > notes.txt  
cat notes.txt
```

### 2.3 Explanation

- `mkdir` creates a new directory.
- `cd` changes the current directory.
- `echo` prints text to the terminal.
- `>` redirects output into a file.
- `cat` displays file contents.

### 2.4 Screenshot

Screenshot of terminal below:



```
coder-devil@DevilComputer:~/Assignment1$ mkdir Assignment1  
coder-devil@DevilComputer:~/Assignment1$ cd Assignment1  
coder-devil@DevilComputer:~/Assignment1$ echo "UNIX is fun!" > notes.txt  
coder-devil@DevilComputer:~/Assignment1$ cat notes.txt
```

## 3 Part 2: Displaying and Counting File Content

### 3.1 Task Description

- Display the contents of `notes.txt`.
- Count the number of lines, words, and characters.

### 3.2 Commands Used

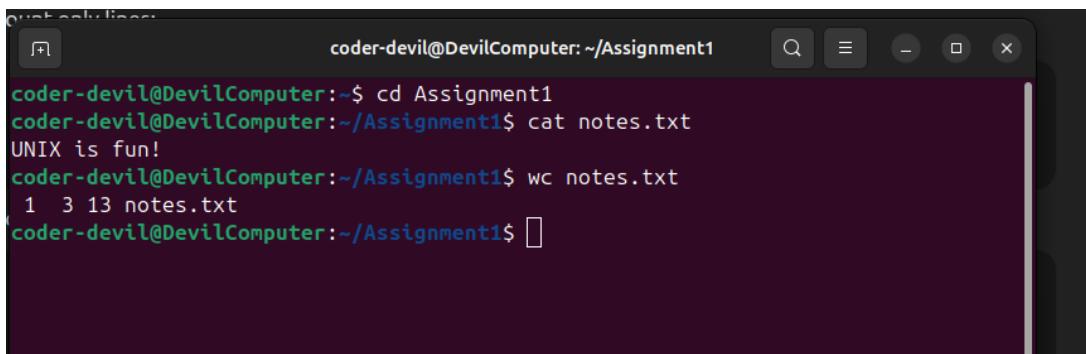
```
cat notes.txt  
wc notes.txt  
wc -l notes.txt  
wc -w notes.txt  
wc -c notes.txt
```

### 3.3 Explanation

- `wc` stands for word count.
- `-l` counts lines.
- `-w` counts words.
- `-c` counts characters (bytes).

### 3.4 Screenshot

Screenshot of terminal below:



```
coder-devil@DevilComputer:~/Assignment1$ cd Assignment1  
coder-devil@DevilComputer:~/Assignment1$ cat notes.txt  
UNIX is fun!  
coder-devil@DevilComputer:~/Assignment1$ wc notes.txt  
1 3 13 notes.txt  
coder-devil@DevilComputer:~/Assignment1$
```

## 4 Part 3: Creating Project Directory Structure

### 4.1 Task Description

Create the following structure:

```
ProjectWorkspace  
|  
| --Docs  
|   | --README.txt
```

```
|-- Code  
|   |--main.py  
|-- Resources
```

## 4.2 Commands Used

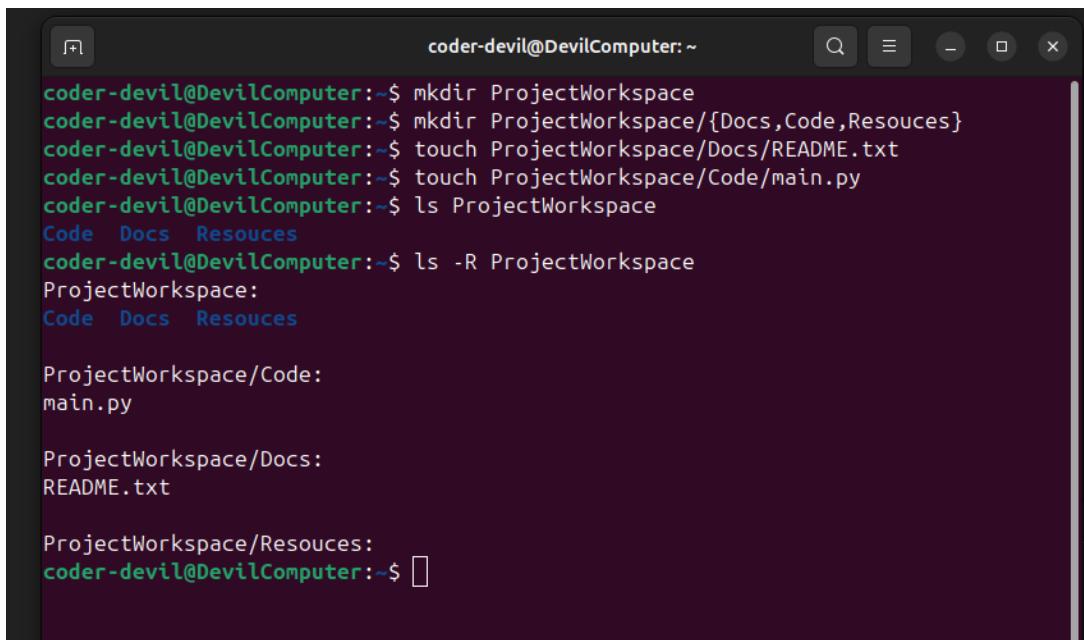
```
mkdir ProjectWorkspace  
mkdir ProjectWorkspace/{Docs,Code,Resources}  
touch ProjectWorkspace/Docs/README.txt  
touch ProjectWorkspace/Code/main.py  
ls -R ProjectWorkspace
```

## 4.3 Explanation

- Brace expansion allows creating multiple directories at once.
- touch creates empty files.
- ls -R lists directory contents recursively.

## 4.4 Screenshot

Screenshot of terminal below:



```
coder-devil@DevilComputer:~$ mkdir ProjectWorkspace  
coder-devil@DevilComputer:~$ mkdir ProjectWorkspace/{Docs,Code,Resouces}  
coder-devil@DevilComputer:~$ touch ProjectWorkspace/Docs/README.txt  
coder-devil@DevilComputer:~$ touch ProjectWorkspace/Code/main.py  
coder-devil@DevilComputer:~$ ls ProjectWorkspace  
Code Docs Resouces  
coder-devil@DevilComputer:~$ ls -R ProjectWorkspace  
ProjectWorkspace:  
Code Docs Resouces  
  
ProjectWorkspace/Code:  
main.py  
  
ProjectWorkspace/Docs:  
README.txt  
  
ProjectWorkspace/Resouces:  
coder-devil@DevilComputer:~$
```

# 5 Part 4: Moving Files Using Wildcards

## 5.1 Task Description

- Create files:
  - old\_report1.txt

- old\_report2.txt
- current\_report.txt
- Create directory OldReports.
- Move all files starting with “old” into OldReports.

## 5.2 Commands Used

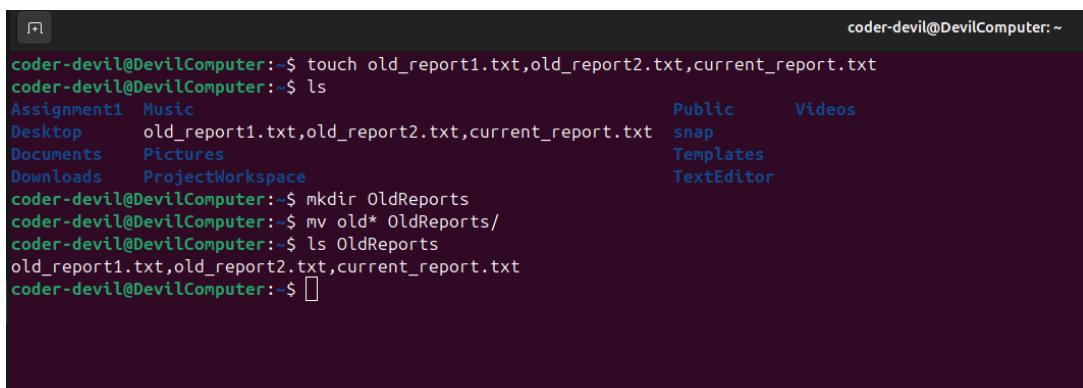
```
touch old_report1.txt old_report2.txt current_report.txt
mkdir OldReports
mv old* OldReports/
ls
ls OldReports
```

## 5.3 Explanation

- mv moves files.
- \* is a wildcard that matches any sequence of characters.
- old\* matches all files beginning with “old”.

## 5.4 Screenshot

Screenshot of terminal below:



```
coder-devil@DevilComputer:~$ touch old_report1.txt,old_report2.txt,current_report.txt
coder-devil@DevilComputer:~$ ls
Assignment1  Music           Public      Videos
Desktop       old_report1.txt,old_report2.txt,current_report.txt  snap
Documents     Pictures        Templates
Downloads    ProjectWorkspace TextEditor
coder-devil@DevilComputer:~$ mkdir OldReports
coder-devil@DevilComputer:~$ mv old* OldReports/
coder-devil@DevilComputer:~$ ls OldReports
old_report1.txt,old_report2.txt,current_report.txt
coder-devil@DevilComputer:~$
```

## 6 Conclusion

In this assignment, we practiced fundamental Linux commands for directory creation, file manipulation, content viewing, file statistics analysis, and file organization using wildcards. These commands form the foundation for efficient file system management in UNIX/Linux environments.