GATI SHAKTI VISHWAVIDYALAYA

ASSIGNMENT 1

Linux File Handling and Directory Management

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Contents

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

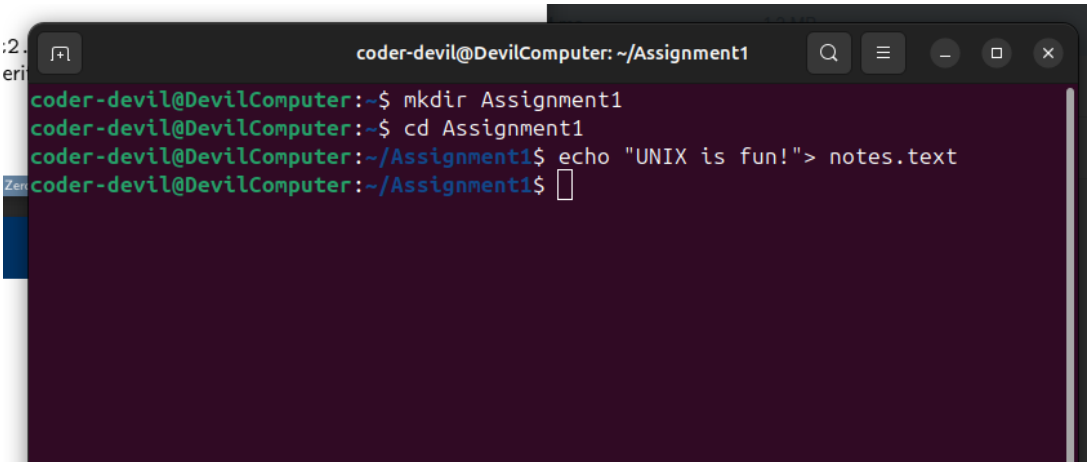
```
mkdir Assignment1
cd Assignment1
echo "UNIX is fun!" > notes.txt
cat notes.txt
```

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:



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

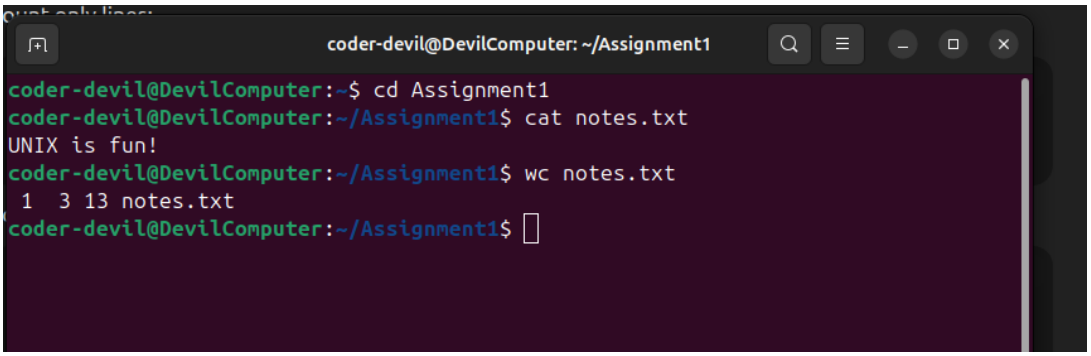
```
cat notes.txt
wc notes.txt
wc -l notes.txt
wc -w notes.txt
wc -c notes.txt
```

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:



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

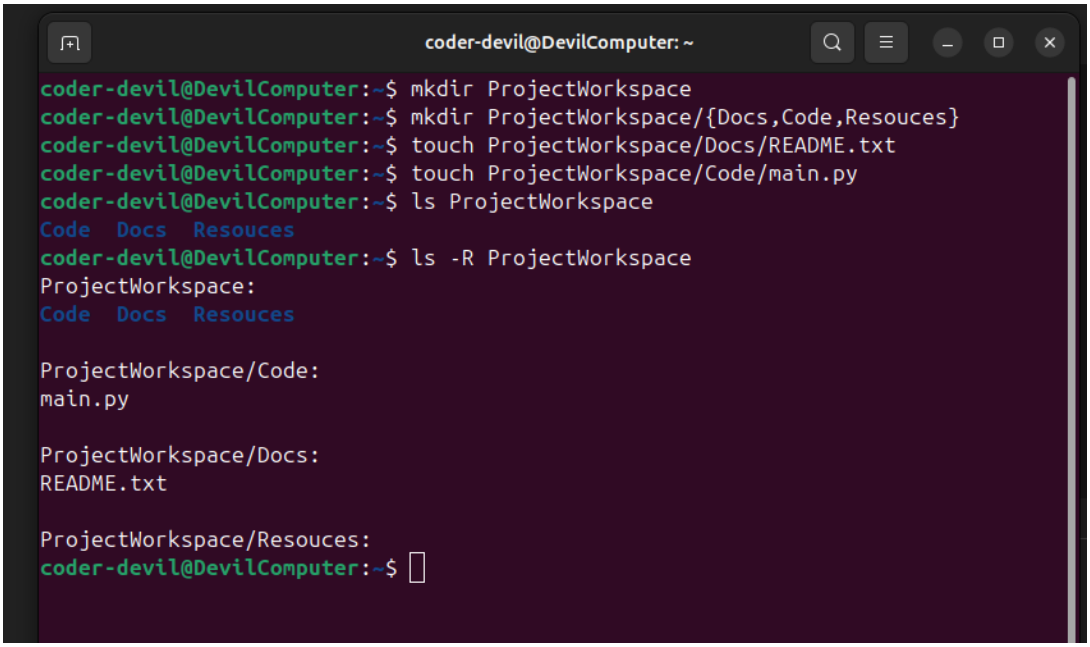
```
mkdir ProjectWorkspace
mkdir ProjectWorkspace/{Docs,Code,Resources}
touch ProjectWorkspace/Docs/README.txt
touch ProjectWorkspace/Code/main.py
ls -R ProjectWorkspace
```

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:



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

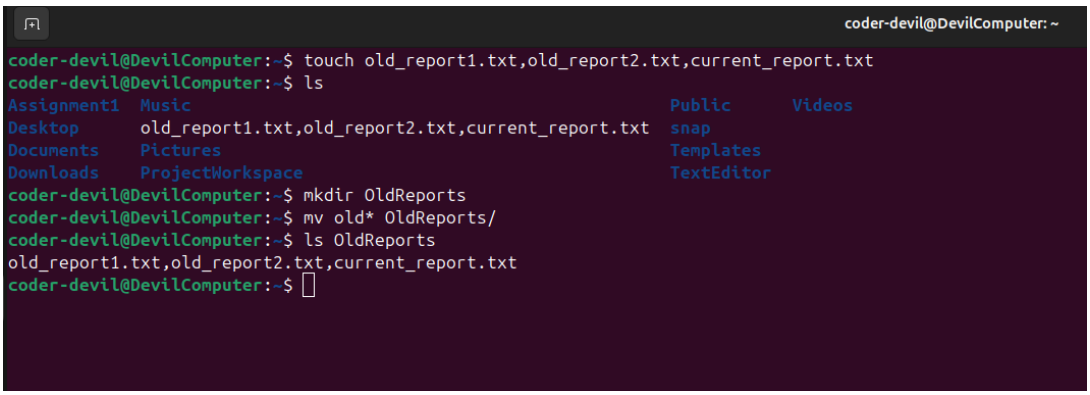
```
touch old_report1.txt old_report2.txt current_report.txt
mkdir OldReports
mv old* OldReports/
ls
ls OldReports
```

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:



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.