

TASK 1

a. Task: Display the contents of a text file - Use commands like `cat`, `less`, or `more` to view the content of a text file. Describe the differences between these commands and identify scenarios where each is preferable.

cat : cat command is used to concatenate and print on the standard output.

- cat command is simple and straight forward
- cat shows the entire output at the same time.
- cat command doesn't provide navigation.

Use Cases:

- cat is suitable for small files

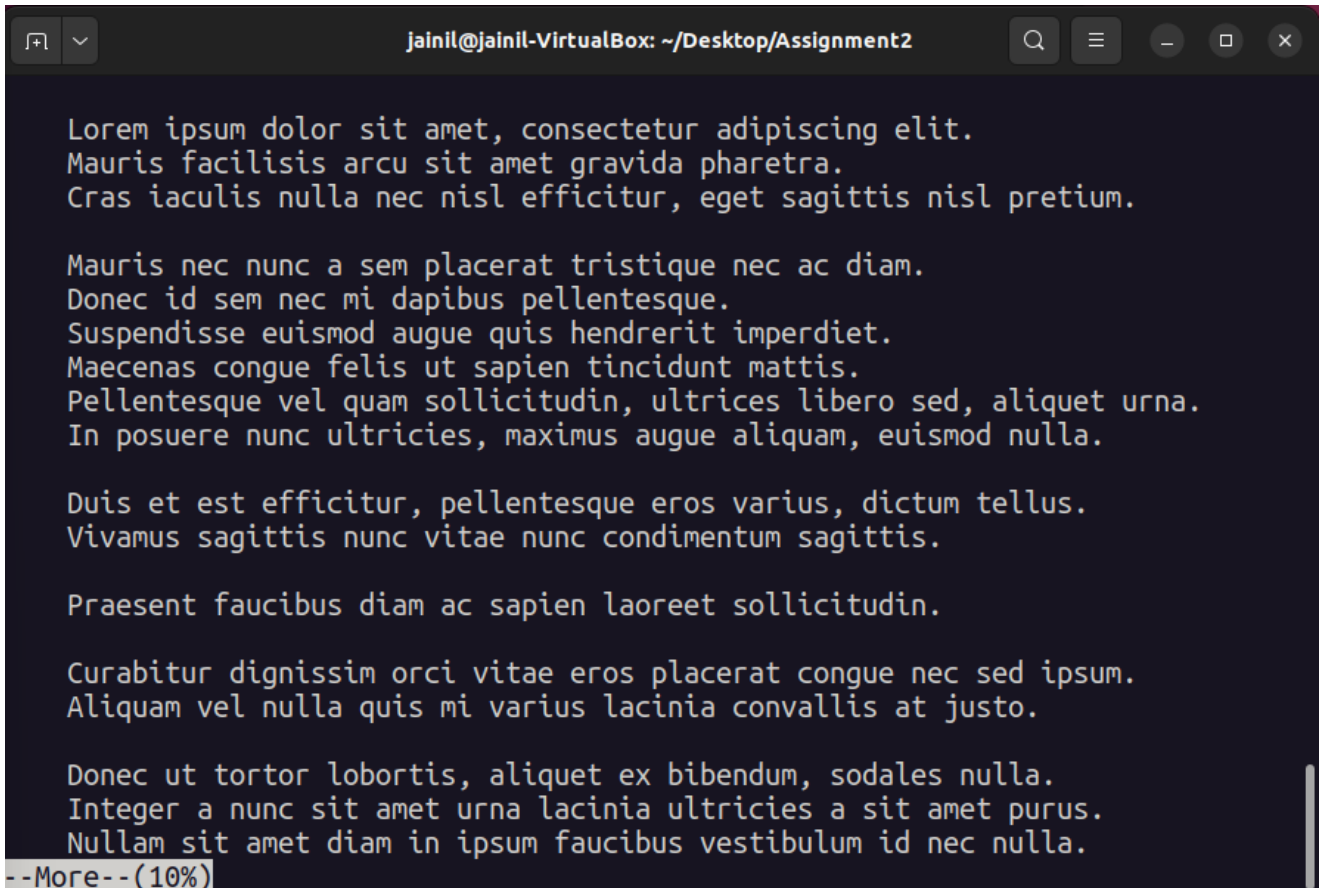
A screenshot of a terminal window titled 'jainil@jainil-VirtualBox: ~/Desktop/Assignment2'. The prompt is 'jainil@jainil-VirtualBox:~/Desktop/Assignment2\$'. The command 'cat smallfile.txt' has been entered. The output of the command is displayed on the next line: 'Nam mollis turpis vel tortor congue, et consectetur tellus tempus. Nulla iaculis eros non felis luctus hendrerit. Ut rhoncus nisi sed posuere venenatis. Nunc eget nisi sollicitudin, aliquet nunc sit amet, porttitor ex. Nulla euismod ipsum egestas ultrices laoreet.' The prompt is now 'jainil@jainil-VirtualBox:~/Desktop/Assignment2\$' followed by a space and the letter 'S'.

more : `more` command is a filter for paging through text one screenful at a time.

- Allows interactive navigation
- Basic paging functionality
- Suitable for browsing through a file.
- `more` is similar to `less` but less features.

Use Cases:

- to view the text files in the command prompt, displaying one screen at a time in case the file is large



```
jainil@jainil-VirtualBox: ~/Desktop/Assignment2

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Mauris facilisis arcu sit amet gravida pharetra.
Cras iaculis nulla nec nisl efficitur, eget sagittis nisl pretium.

Mauris nec nunc a sem placerat tristique nec ac diam.
Donec id sem nec mi dapibus pellentesque.
Suspendisse euismod augue quis hendrerit imperdiet.
Maecenas congue felis ut sapien tincidunt mattis.
Pellentesque vel quam sollicitudin, ultrices libero sed, aliquet urna.
In posuere nunc ultricies, maximus augue aliquam, euismod nulla.

Duis et est efficitur, pellentesque eros varius, dictum tellus.
Vivamus sagittis nunc vitae nunc condimentum sagittis.

Praesent faucibus diam ac sapien laoreet sollicitudin.

Curabitur dignissim orci vitae eros placerat congue nec sed ipsum.
Aliquam vel nulla quis mi varius lacinia convallis at justo.

Donec ut tortor lobortis, aliquet ex bibendum, sodales nulla.
Integer a nunc sit amet urna lacinia ultricies a sit amet purus.
Nullam sit amet diam in ipsum faucibus vestibulum id nec nulla.
--More--(10%)
```

less : `less` is similar to `more` but it does not read the entire file before starting, so with large input files it starts up faster than text editor like `vi`.

- Provides interactive navigation.
- Can handle large files.
- `less` have more features.
- `less` does not read the whole content of a file unlike `more` command.

Use Cases:

- `less` command is used for large files when you need to navigate interactively.

```
jainil@jainil-VirtualBox: ~/Desktop/Assignment2

Nam mollis turpis vel tortor congue, et consectetur tellus tempus.
Nulla iaculis eros non felis luctus hendrerit.
Ut rhoncus nisi sed posuere venenatis.
Nunc eget nisi sollicitudin, aliquet nunc sit amet, porttitor ex.
Nulla euismod ipsum egestas ultrices laoreet.

(END)
```

b. Task: Display a specific range of lines from a text file - Use the appropriate options with `cat`, `sed`, or `awk` to display a specific range of lines from a text file

For displaying a range of lines from a text file using commands like `cat`, `sed` and `awk`. Following are the commands:

`cat`: `cat` command is used to concatenate and print on the standard output.
e.g., command for displaying 10 lines from 12 to 22 from `largefile.txt`.

```
cat largefile.txt | head -n 22 | tail -n +12
```

```
jainil@jainil-VirtualBox:~/Desktop/Assignment2$ cat largefile.txt | head -n 22 |
tail -n +12

Duis et est efficitur, pellentesque eros varius, dictum tellus.
Vivamus sagittis nunc vitae nunc condimentum sagittis.

Praesent faucibus diam ac sapien laoreet sollicitudin.

Curabitur dignissim orci vitae eros placerat congue nec sed ipsum.
Aliquam vel nulla quis mi varius lacinia convallis at justo.

Donec ut tortor lobortis, aliquet ex bibendum, sodales nulla.
Integer a nunc sit amet urna lacinia ultricies a sit amet purus.
jainil@jainil-VirtualBox:~/Desktop/Assignment2$
```

`awk`: `awk` is programming language for scanning pattern and text processing.
e.g., command for displaying 10 lines from 12 to 22 from `largefile.txt`.

```
awk 'NR>=12 && NR <=22' largefile.txt
```

```
jainil@jainil-VirtualBox:~/Desktop/Assignment2$ awk 'NR>=12 && NR<=22' largefile.txt
```

Duis et est efficitur, pellentesque eros varius, dictum tellus.
Vivamus sagittis nunc vitae nunc condimentum sagittis.

Praesent faucibus diam ac sapien laoreet sollicitudin.

Curabitur dignissim orci vitae eros placerat congue nec sed ipsum.
Aliquam vel nulla quis mi varius lacinia convallis at justo.

Donec ut tortor lobortis, aliquet ex bibendum, sodales nulla.
Integer a nunc sit amet urna lacinia ultricies a sit amet purus.

sed : sed is stream editor for filtering and transforming text.

e.g., command for displaying 10 lines from 12 to 22 from largefile.txt.

```
sed -n '12,22p' largefile.txt
```

```
jainil@jainil-VirtualBox:~/Desktop/Assignment2$ sed -n '12,22p' largefile.txt
```

Duis et est efficitur, pellentesque eros varius, dictum tellus.
Vivamus sagittis nunc vitae nunc condimentum sagittis.

Praesent faucibus diam ac sapien laoreet sollicitudin.

Curabitur dignissim orci vitae eros placerat congue nec sed ipsum.
Aliquam vel nulla quis mi varius lacinia convallis at justo.

Donec ut tortor lobortis, aliquet ex bibendum, sodales nulla.
Integer a nunc sit amet urna lacinia ultricies a sit amet purus.