UNIX SHELL PROGRAMMING

BASIC MANUAL

Files Included

1. myHelp.sh
2. fmc.sh
3. ssc.sh
4. tpc.sh
5. help.sh
6. l.sh*
7. el.sh*

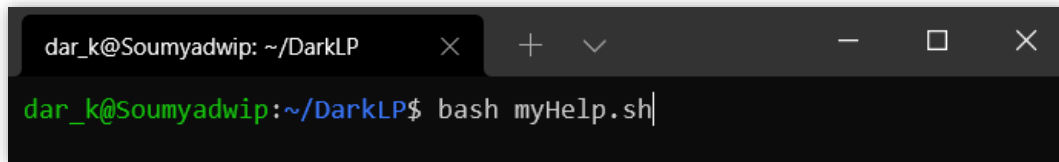*Additional files for animations*

INTRODUCTION

This UNIX shell program is a menu system for new user, which allows the user to use wild cards and also contains an error checking mechanism.

It has two modes, Expert and Novice.

LAUNCHING THE PROGRAM (*The UNIX help main menu*)
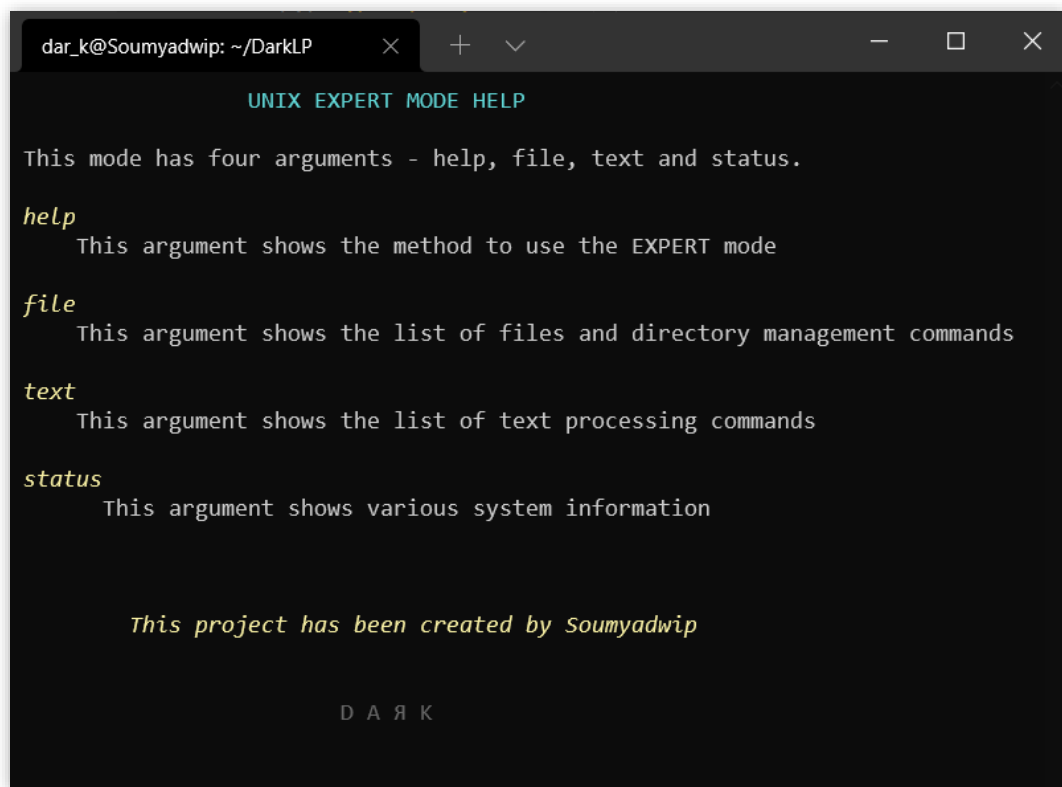
The menu system will be saved as a shell script: myHelp.sh

To launch the program, run the shell script with or without arguments.

With one Argument (Expert Mode)

1. help argument
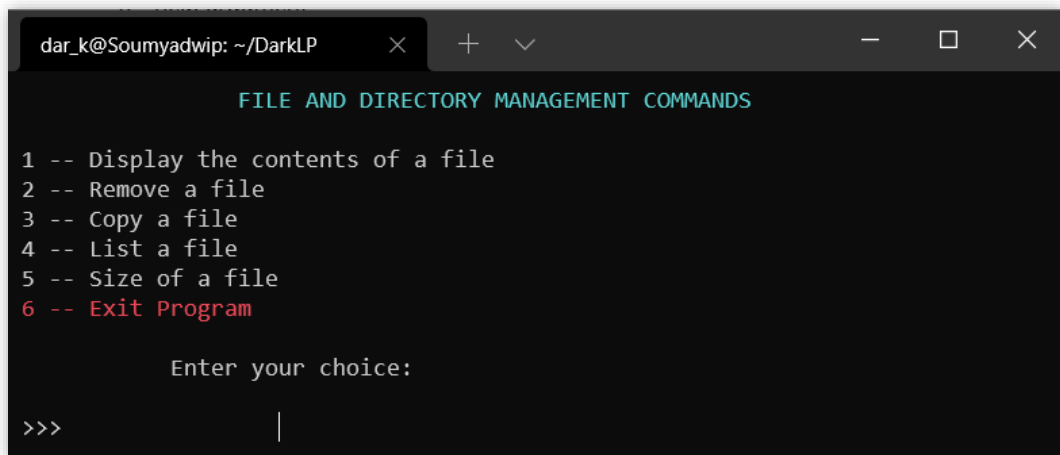
2. file argument


```
FILE AND DIRECTORY MANAGEMENT COMMANDS

1 -- Display the contents of a file
2 -- Remove a file
3 -- Copy a file
4 -- List a file
5 -- Size of a file
6 -- Exit Program

        Enter your choice:

>>>             |
```
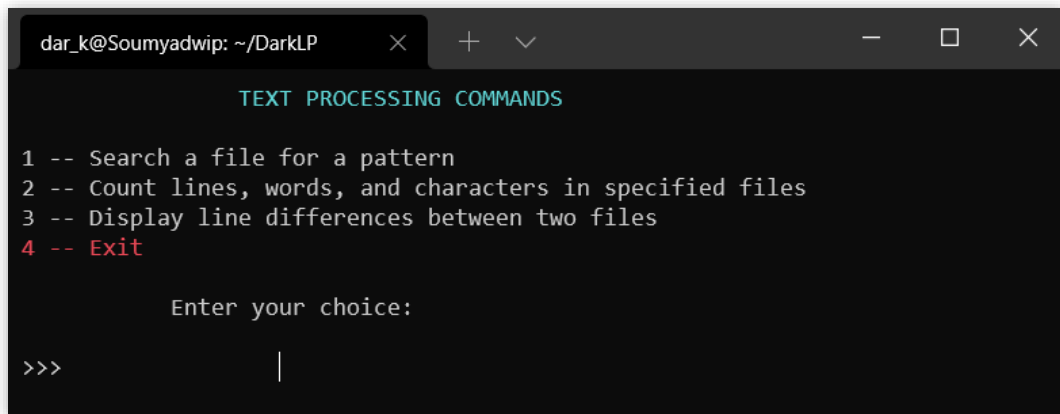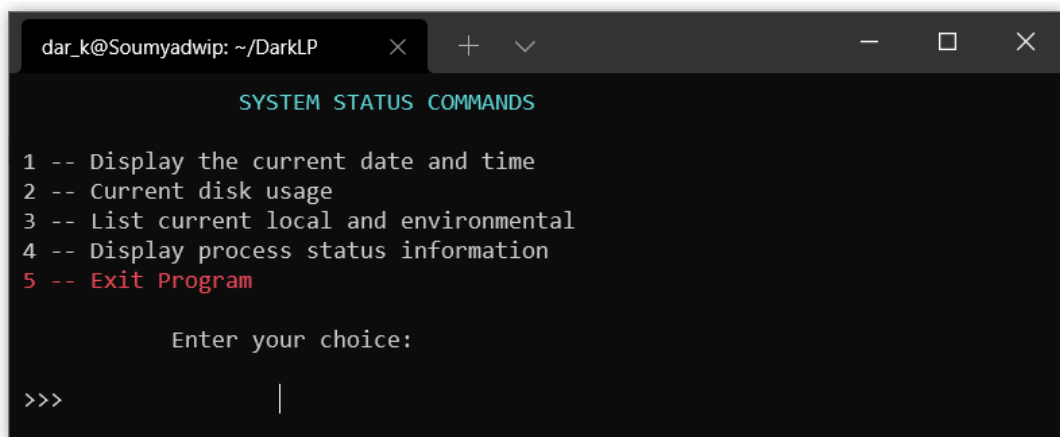
3. text argument


```
TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Exit

        Enter your choice:

>>>             |
```

4. status argument


```
SYSTEM STATUS COMMANDS

1 -- Display the current date and time
2 -- Current disk usage
3 -- List current local and environmental
4 -- Display process status information
5 -- Exit Program

        Enter your choice:

>>>             |
```

Without Arguments (Novice Mode)

If there are no arguments, the user will be presented with the following menu on a cleared screen

```
dar_k@Soumyadwip: ~/DarkLP

           UNIX HELP MAIN MENU

1 -- File and Directory Management Commands
2 -- Text Processing Commands
3 -- System Status Commands
4 -- Exit


        Enter your choice:


>>>           |
```

SUBMENUS (*Novice Mode*)

The File Management Commands Sub-menu

```
dar_k@Soumyadwip: ~/DarkLP

          FILE AND DIRECTORY MANAGEMENT COMMANDS

1 -- Display the contents of a file
2 -- Remove a file
3 -- Copy a file
4 -- List a file
5 -- Size of a file
6 -- Quit -- Return to Main Menu

        Enter your choice:

>>>        |
```

```
dar_k@Soumyadwip: ~/DarkLP

          FILE AND DIRECTORY MANAGEMENT COMMANDS

1 -- Display the contents of a file
2 -- Remove a file
3 -- Copy a file
4 -- List a file
5 -- Size of a file
6 -- Quit -- Return to Main Menu

        Enter your choice:

>>>           7

        Invalid choice - Try Again



        Press enter to continue|
```

1. Displaying the contents of a file

2. Removing a file

3. Copying a file

4. Listing the files

5. Size of file (B = bytes)

The Text Processing Commands Sub-Menu

```
dar_k@Soumyadwip: ~/DarkLP        ×    +  ∨                       —    □    ×

                TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Quit -- Return to Main Menu

        Enter your choice:

>>>                 |
```

```
dar_k@Soumyadwip: ~/DarkLP        ×    +  ∨                       —    □    ×

                TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Quit -- Return to Main Menu

        Enter your choice:

>>>                 5

        Invalid choice - Try Again



        Press enter to continue
```

1. Searching for a pattern in a file

```
dar_k@Soumyadwip: ~/DarkLP        X    +   ∨                          —    □    X

                TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Quit -- Return to Main Menu

          Enter your choice:

>>>                1

Enter the address of the file

>>>              f1.txt

Enter the pattern

>>>              unix

unix is great os. unix is opensource. unix is free os.
uNix is easy to learn.unix is a multiuser os.Learn unix .unix is a powerful.


        Press enter to continue
```

```
dar_k@Soumyadwip: ~/DarkLP        X    +   ∨                          —    □    X

                TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Quit -- Return to Main Menu

          Enter your choice:

>>>                1

Enter the address of the file

>>>              f1.txt

Enter the pattern

>>>              46

The entered pattern does not exist

        Press enter to continue
```

2. Count lines, words and characters in a file

3. Display line differences

f1 - Notepad

File Edit Format View Help

```
unix is great os. unix is opensource. unix is free os.
learn operating system.
Unix linux which one you choose.
uNix is easy to learn.unix is a multiuser os.Learn unix .unix is a powerful.
```

f2 - Notepad

File Edit Format View Help

```
unix is great os. unix is opensource. unix is free os.
loarn operating system.
Ubix linux which one you choose.
```

dar_k@Soumyadwip: ~/DarkLP

```
                  TEXT PROCESSING COMMANDS

1 -- Search a file for a pattern
2 -- Count lines, words, and characters in specified files
3 -- Display line differences between two files
4 -- Quit -- Return to Main Menu

          Enter your choice:

>>>                  3

Enter the address of the first file

>>>              f1.txt

Enter the address of the second file

>>>              f2.txt
1,4c1,3
< unix is great os. unix is opensource. unix is free os.
< learn operating system.
< Unix linux which one you choose.
< uNix is easy to learn.unix is a multiuser os.Learn unix .unix is a powerful.
---
> unix is great os. unix is opensource. unix is free os.
> loarn operating system.
> Ubix linux which one you choose.


        Press enter to continue
```
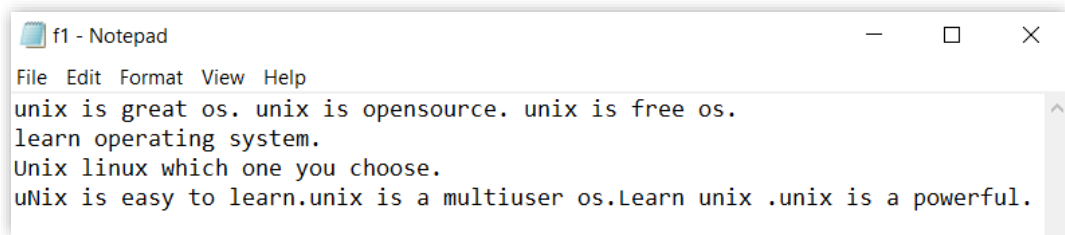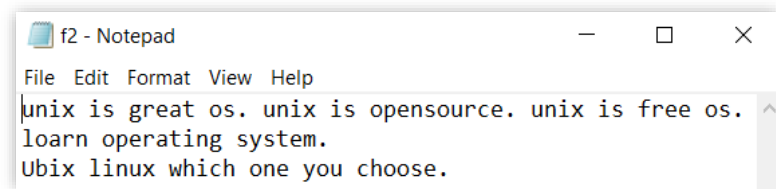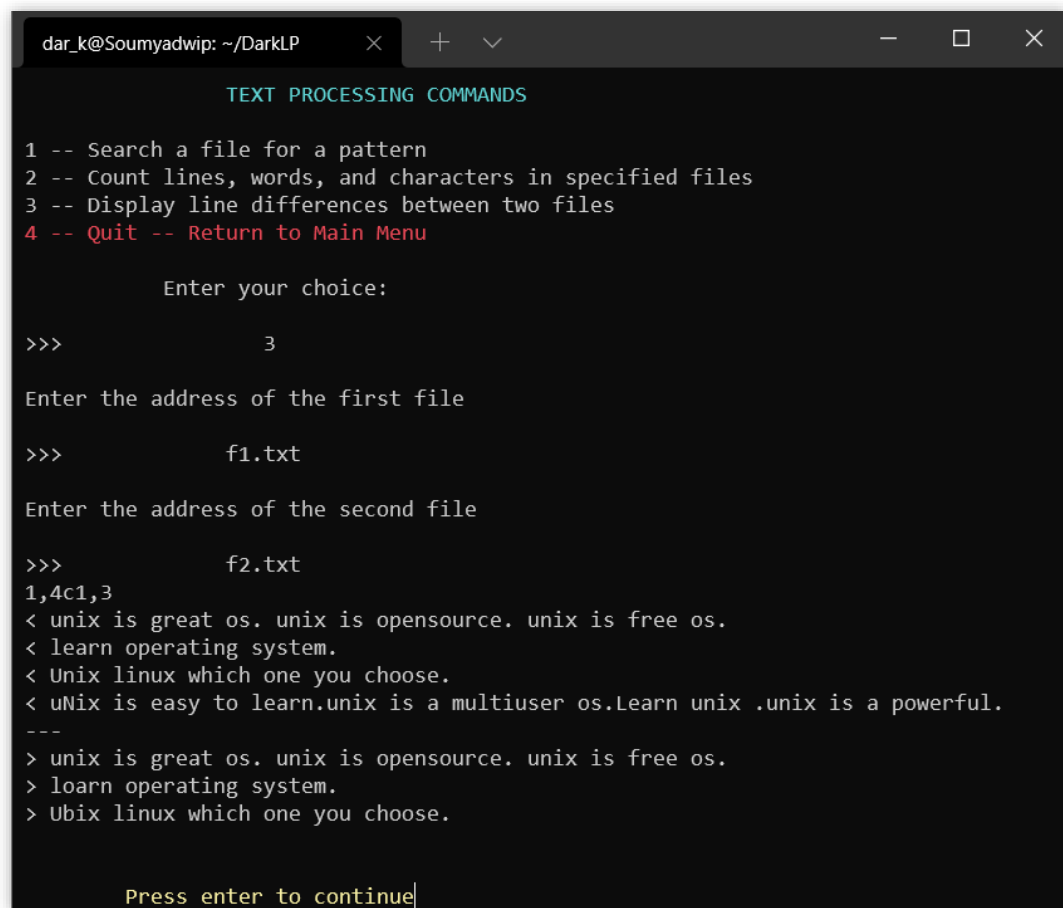
The System Status Commands Sub-menu

1. Display the current date and time

```
dar_k@Soumyadwip: ~/DarkLP          ×    +   ∨                    —   □   ×
                SYSTEM STATUS COMMANDS

1 -- Display the current date and time
2 -- Current disk usage
3 -- List current local and environmental
4 -- Display process status information
5 -- Quit -- Return to Main Menu

        Enter your choice:

>>>                 1


DATE: 06/06/21
TIME: 19:23:28


        Press enter to continue
```

2. Current disk usage

```
dar_k@Soumyadwip: ~/DarkLP          ×    +   ∨                    —   □   ×
                SYSTEM STATUS COMMANDS

1 -- Display the current date and time
2 -- Current disk usage
3 -- List current local and environmental
4 -- Display process status information
5 -- Quit -- Return to Main Menu

        Enter your choice:

>>>                 2


Filesystem      Size  Used Avail Use% Mounted on
/dev/sdb        270G  1.9G  254G   1% /
tmpfs           3.3G     0  3.3G   0% /mnt/wsl
tools           512G  174G  338G  34% /init
none            3.3G     0  3.3G   0% /dev
none            3.3G  4.1k  3.3G   1% /run
none            3.3G     0  3.3G   0% /run/lock
none            3.3G     0  3.3G   0% /run/shm
none            3.3G     0  3.3G   0% /run/user
tmpfs           3.3G     0  3.3G   0% /sys/fs/cgroup
C:\             512G  174G  338G  34% /mnt/c

        Press enter to continue
```

3. List current local and environmental variables

```
dar_k@Soumyadwip: ~/DarkLP          X     +   ∨                                    —   □   ✕

                SYSTEM STATUS COMMANDS

1 -- Display the current date and time
2 -- Current disk usage
3 -- List current local and environmental
4 -- Display process status information
5 -- Quit -- Return to Main Menu

        Enter your choice:

>>>                3


BASH
BASHOPTS
BASHPID
BASH_ALIASES
BASH_ARGC
BASH_ARGV
BASH_ARGV0
BASH_CMDS
BASH_COMMAND
BASH_LINENO
BASH_SOURCE
BASH_SUBSHELL
BASH_VERSINFO
BASH_VERSION
BICyan
BYellow
COLUMNS
COMP_WORDBREAKS
Color_Off
DIRSTACK
EPOCHREALTIME
EPOCHSECONDS
EUID
GROUPS
HISTCMD
HOME
HOSTNAME
HOSTTYPE
IFS
IGreen
```

4. Display process status information

Exit:

Note: All functions in Expert Mode are exactly same as the Novice Mode.

Exit Program option is available in each argument of Expert Mode.