

PRACTICAL 2 OUTPUT

1. Display the user manual of any command.

We displayed the help manual of a command to understand its usage.

```
C:\Windows\System32\cmd.exe
DIR [drive:][path][filename] [/A[:attributes]] [/B] [/C] [/D] [/L] [/N]
[/O[:sortorder]] [/P] [/Q] [/R] [/S] [/T[:timefield]] [/W] [/X] [/4]

[drive:][path][filename]
    Specifies drive, directory, and/or files to list.

/A      Displays files with specified attributes.
attributes  D Directories          R Read-only files
             H Hidden files        A Files ready for archiving
             S System files        I Not content indexed files
             L Reparse Points      O Offline files
             - Prefix meaning not

/B      Uses bare format (no heading information or summary).
/C      Display the thousand separator in file sizes. This is the
         default. Use /-C to disable display of separator.
/D      Same as /W but files are list sorted by column.
/L      Uses lowercase.
/N      New long list format where filenames are on the far right.
/O      List by files in sorted order.
sortorder  N By name (alphabetic)    S By size (smallest first)
            E By extension (alphabetic) D By date/time (oldest first)
            G Group directories first - Prefix to reverse order

/P      Pauses after each screenful of information.
/Q      Display the owner of the file.
/R      Display alternate data streams of the file.
/S      Displays files in specified directory and all subdirectories.
/T      Controls which time field displayed or used for sorting
timefield  C Creation
            A Last Access
            W Last Written

/W      Uses wide list format.
/X      This displays the short names generated for non-8dot3 file
         names. The format is that of /N with the short name inserted
         before the long name. If no short name is present, blanks are
         displayed in its place.
/4      Displays four-digit years

Switches may be preset in the DIRCMD environment variable. Override
preset switches by prefixing any switch with - (hyphen)—for example, /-W.

C:\Semester_4\OS\Practical-2\practical>
```

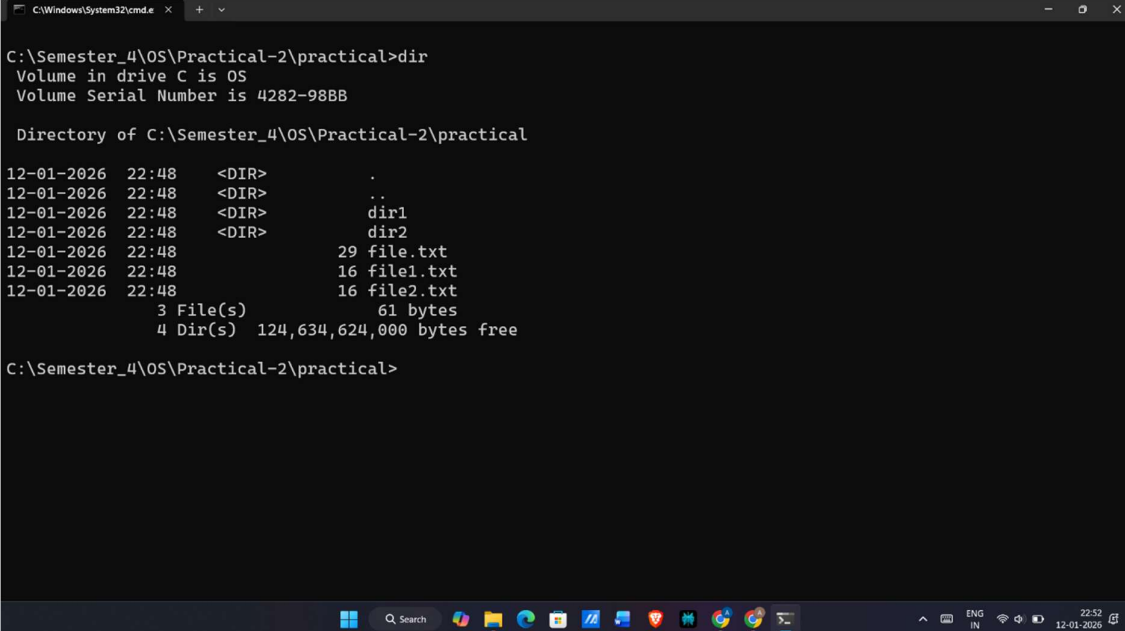
2. Change the current working directory of the user.

We changed the current working directory.

```
C:\Semester_4\OS\Practical-2\practical>cd dir1
C:\Semester_4\OS\Practical-2\practical\dir1>cd ..
C:\Semester_4\OS\Practical-2\practical>
```

3. List all the contents in the current working directory.

We listed all files and folders in the directory.



```
C:\Semester_4\OS\Practical-2\practical>dir
Volume in drive C is OS
Volume Serial Number is 4282-98BB

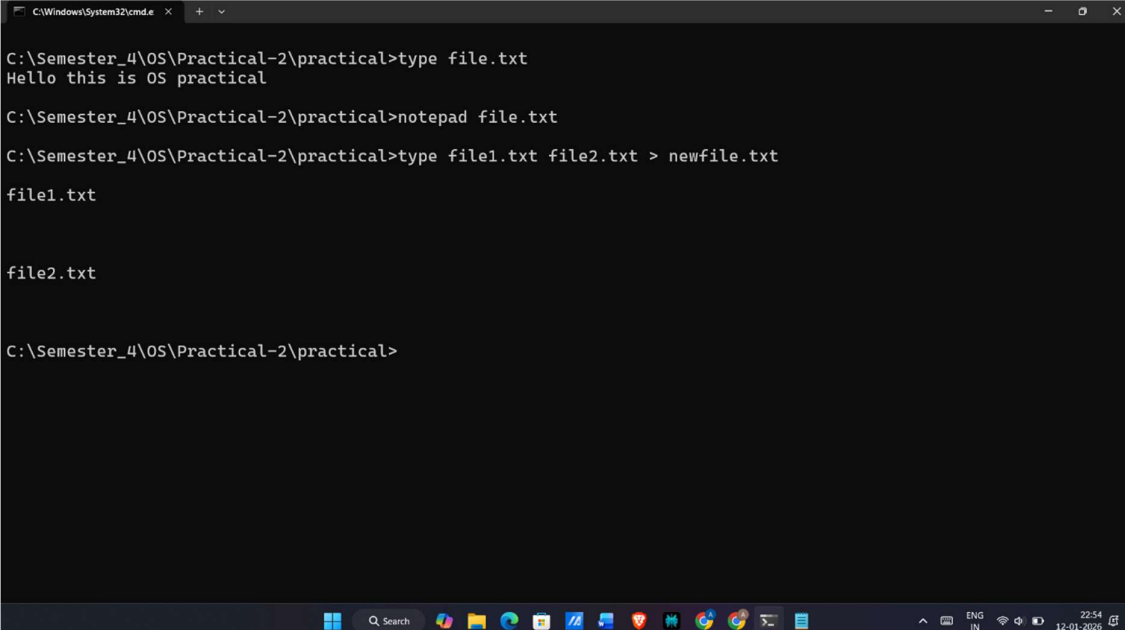
Directory of C:\Semester_4\OS\Practical-2\practical

12-01-2026  22:48    <DIR>          .
12-01-2026  22:48    <DIR>          ..
12-01-2026  22:48    <DIR>          dir1
12-01-2026  22:48    <DIR>          dir2
12-01-2026  22:48                29 file.txt
12-01-2026  22:48                16 file1.txt
12-01-2026  22:48                16 file2.txt
               3 File(s)              61 bytes
               4 Dir(s) 124,634,624,000 bytes free

C:\Semester_4\OS\Practical-2\practical>
```

4. Read, modify or concatenate text files.

We read, edited and combined text files.



```
C:\Semester_4\OS\Practical-2\practical>type file.txt
Hello this is OS practical

C:\Semester_4\OS\Practical-2\practical>notepad file.txt

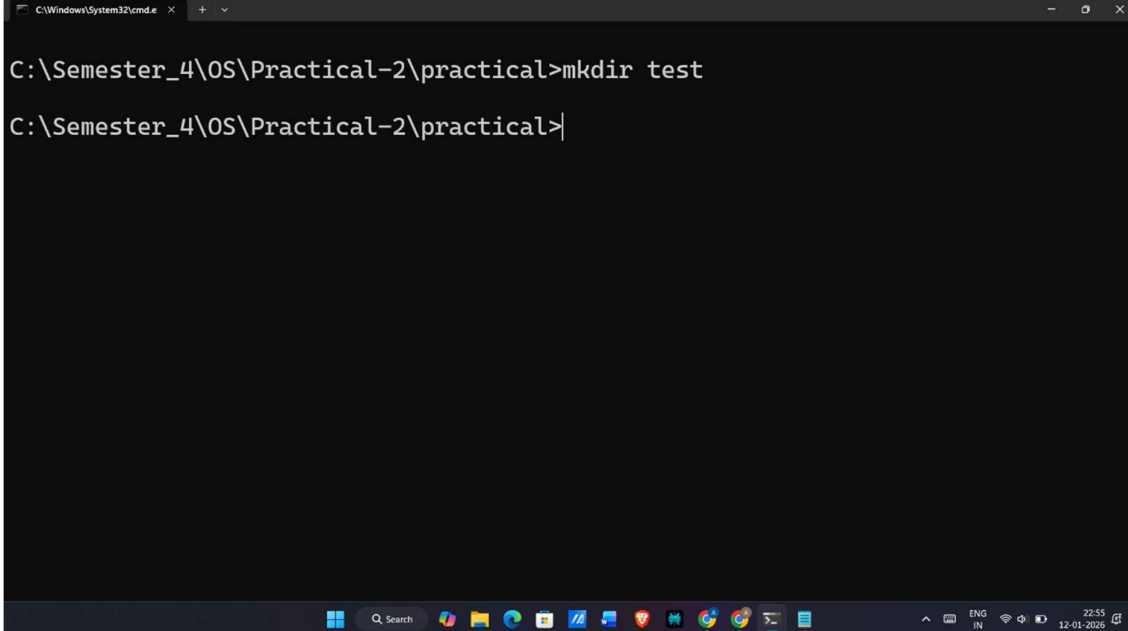
C:\Semester_4\OS\Practical-2\practical>type file1.txt file2.txt > newfile.txt
file1.txt

file2.txt

C:\Semester_4\OS\Practical-2\practical>
```

5. Create a new directory under any directory.

We created a new directory.

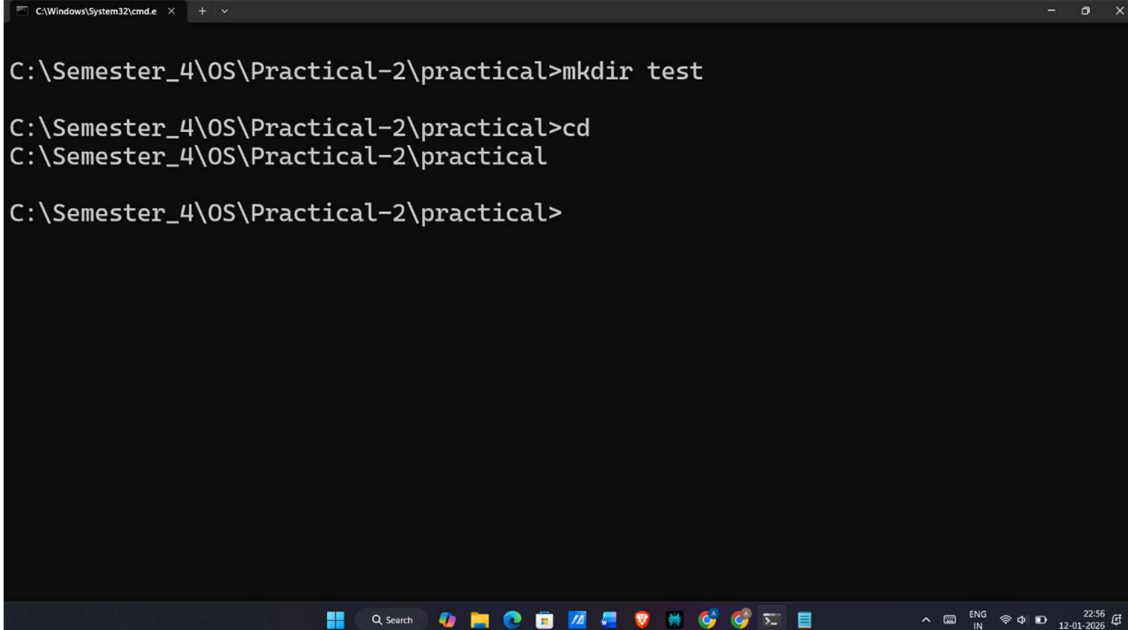


```
C:\Windows\System32\cmd.exe
C:\Semester_4\OS\Practical-2\practical>mkdir test
C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window with the title bar 'C:\Windows\System32\cmd.exe'. The command prompt is at the directory 'C:\Semester_4\OS\Practical-2\practical'. The user has entered the command 'mkdir test', which has been executed successfully. The prompt is now ready for the next command.

6. Display the current working directory of the terminal.

We displayed the current directory path.

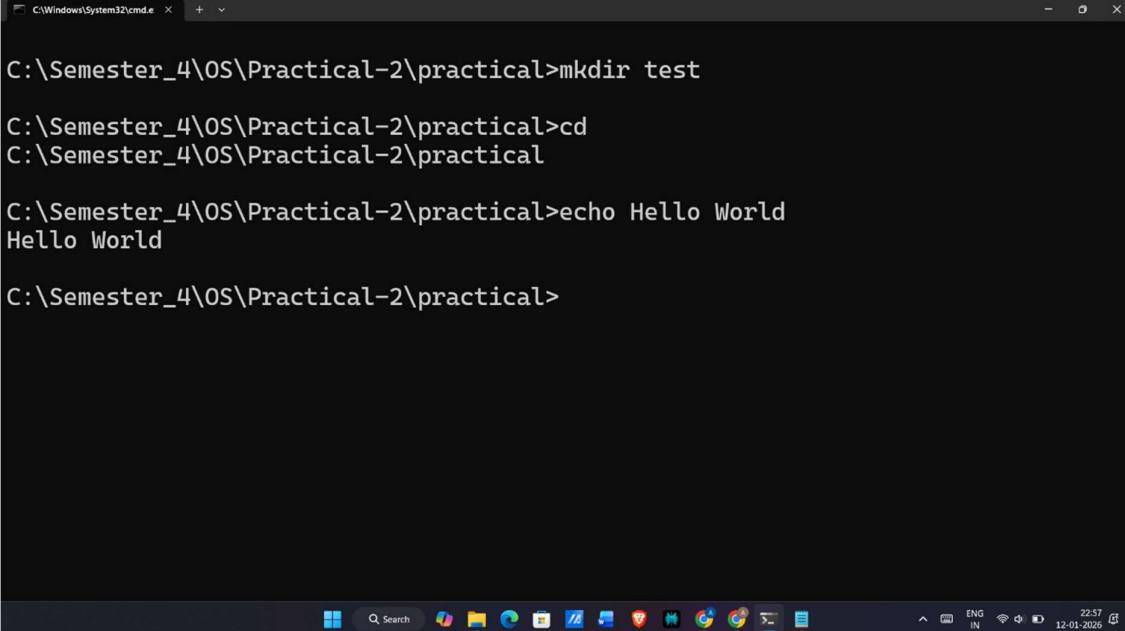


```
C:\Windows\System32\cmd.exe
C:\Semester_4\OS\Practical-2\practical>mkdir test
C:\Semester_4\OS\Practical-2\practical>cd
C:\Semester_4\OS\Practical-2\practical
C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows the same Windows Command Prompt window as before. The user has entered the command 'cd', which displays the current directory path 'C:\Semester_4\OS\Practical-2\practical' on the next line. The prompt is now ready for the next command.

7. Write its arguments to standard output.

We printed text on the screen.



```
C:\Semester_4\OS\Practical-2\practical>mkdir test

C:\Semester_4\OS\Practical-2\practical>cd
C:\Semester_4\OS\Practical-2\practical

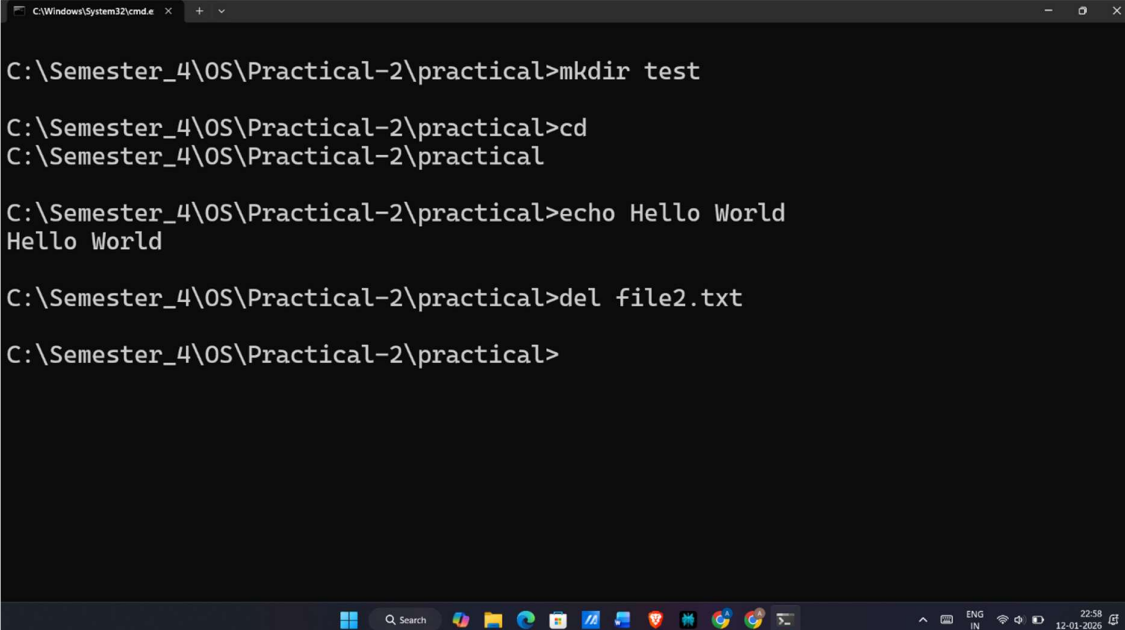
C:\Semester_4\OS\Practical-2\practical>echo Hello World
Hello World

C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window with the title bar 'C:\Windows\System32\cmd.exe'. The command history shows the user navigating to the directory 'C:\Semester_4\OS\Practical-2\practical' and running 'mkdir test' and 'cd'. Finally, the 'echo Hello World' command is executed, resulting in 'Hello World' being printed to the screen. The Windows taskbar at the bottom shows the time as 22:57 on 12-01-2025.

8. Remove a file.

We deleted a file from the system.



```
C:\Semester_4\OS\Practical-2\practical>mkdir test

C:\Semester_4\OS\Practical-2\practical>cd
C:\Semester_4\OS\Practical-2\practical

C:\Semester_4\OS\Practical-2\practical>echo Hello World
Hello World

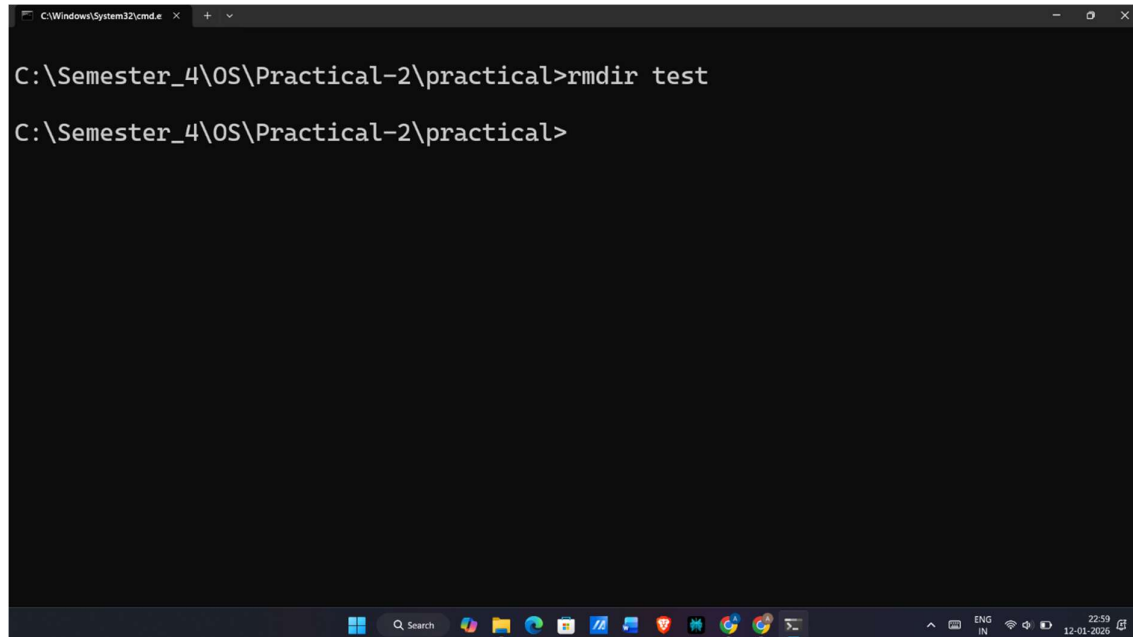
C:\Semester_4\OS\Practical-2\practical>del file2.txt

C:\Semester_4\OS\Practical-2\practical>
```

This screenshot shows the same Command Prompt window as the previous one, but with an additional command. After the 'echo Hello World' command, the user runs 'del file2.txt'. The command is entered at the prompt, but the output is not yet visible. The taskbar at the bottom shows the time as 22:58 on 12-01-2025.

9. Delete a directory.

We removed a directory.

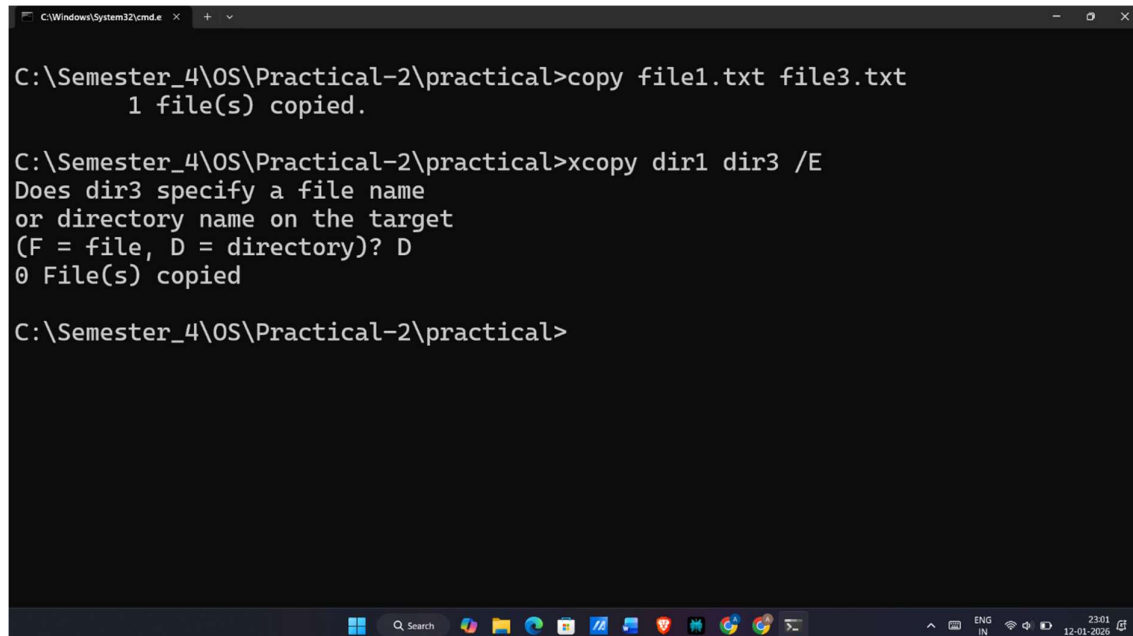


```
C:\Windows\System32\cmd.exe
C:\Semester_4\OS\Practical-2\practical>rmdir test
C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window with the title bar 'C:\Windows\System32\cmd.exe'. The command prompt is at the directory 'C:\Semester_4\OS\Practical-2\practical'. The user has entered the command 'rmdir test', and the prompt has moved to the next line, indicating the command was executed successfully. The Windows taskbar is visible at the bottom, showing the Start button, search bar, and various application icons.

10. Copy a file or directory.

We copied files and folders.



```
C:\Windows\System32\cmd.exe
C:\Semester_4\OS\Practical-2\practical>copy file1.txt file3.txt
1 file(s) copied.

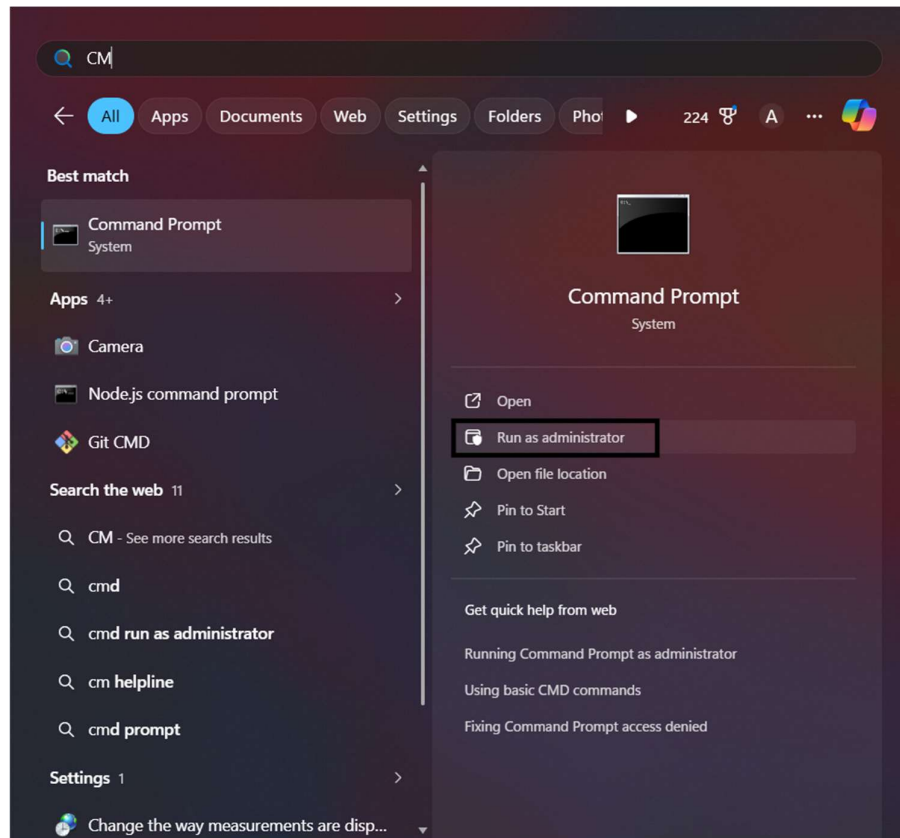
C:\Semester_4\OS\Practical-2\practical>xcopy dir1 dir3 /E
Does dir3 specify a file name
or directory name on the target
(F = file, D = directory)? D
0 File(s) copied

C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window with the title bar 'C:\Windows\System32\cmd.exe'. The command prompt is at the directory 'C:\Semester_4\OS\Practical-2\practical'. The user has entered two commands. The first command is 'copy file1.txt file3.txt', which results in '1 file(s) copied.'. The second command is 'xcopy dir1 dir3 /E', which prompts the user with 'Does dir3 specify a file name or directory name on the target (F = file, D = directory)? D'. The user has entered 'D', and the result is '0 File(s) copied'. The prompt then moves to the next line. The Windows taskbar is visible at the bottom.

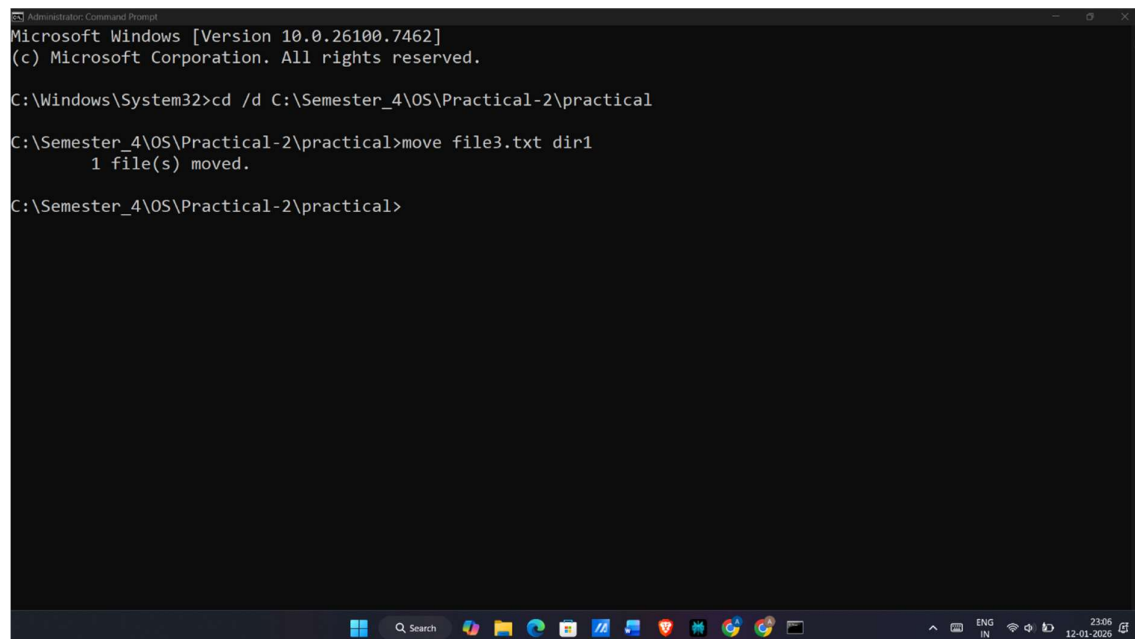
11. Switch to root-user.

We accessed the system with administrator privileges.



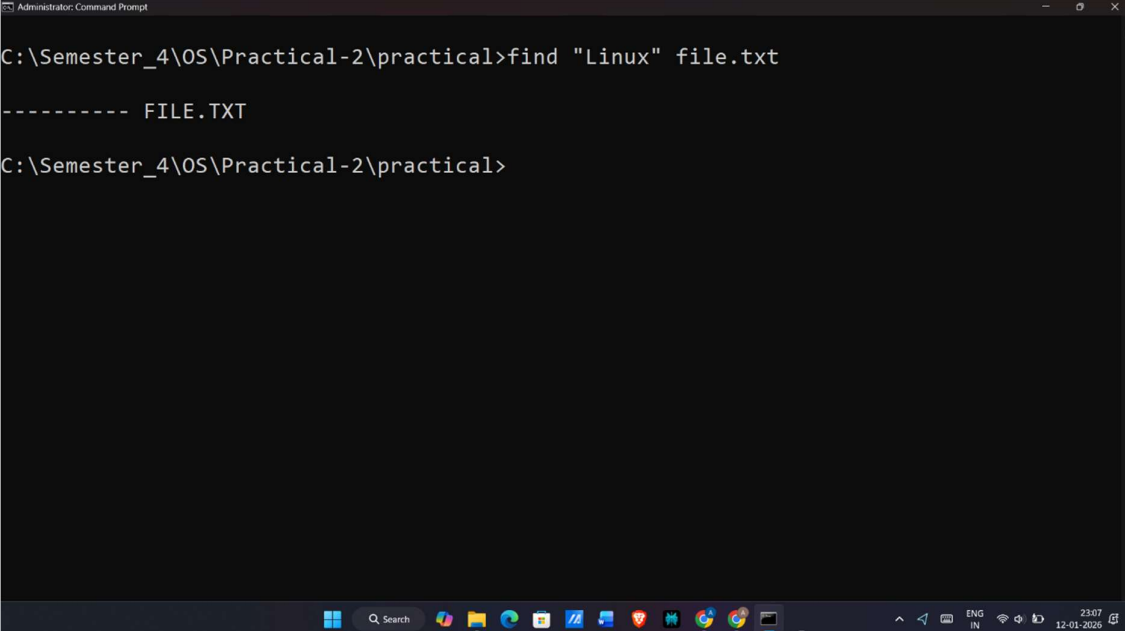
12. Move files and directories from one directory to another.

We moved files and directories.



13. Search for a particular string/word in a text file.

We searched for a word inside a file.

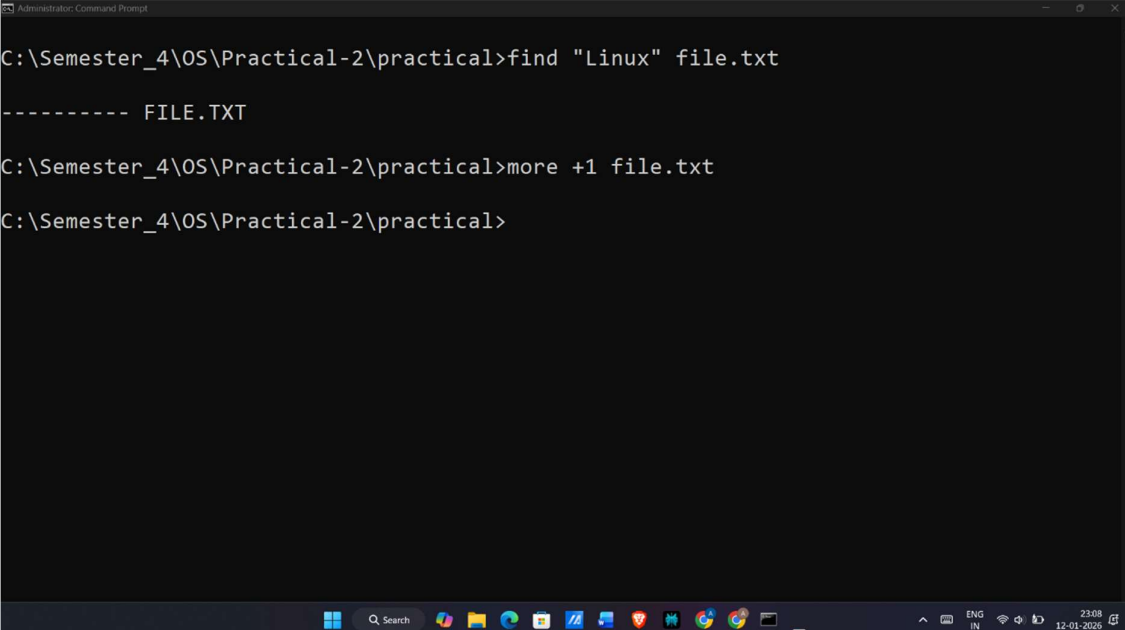


```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>find "Linux" file.txt
----- FILE.TXT
C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The user is in the directory "C:\Semester_4\OS\Practical-2\practical". They have executed the command "find 'Linux' file.txt", which has returned the output "----- FILE.TXT". The Windows taskbar at the bottom shows the date as 12-01-2025 and the time as 23:07.

14. Print the top N number of data of the given input.

We displayed the first few lines of a file.

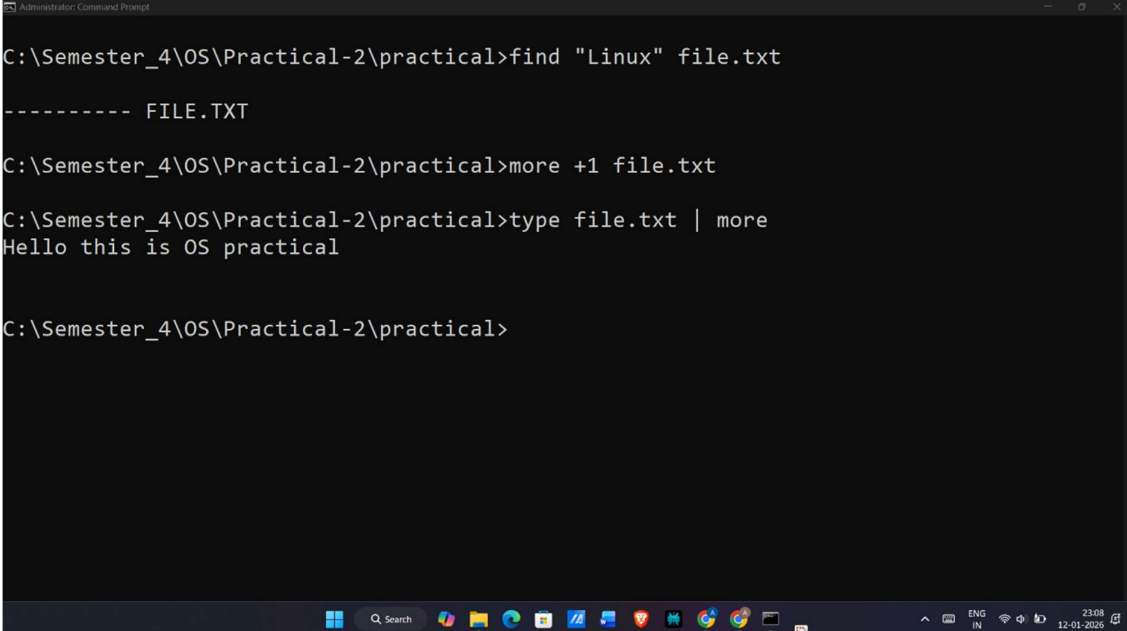


```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>find "Linux" file.txt
----- FILE.TXT
C:\Semester_4\OS\Practical-2\practical>more +1 file.txt
C:\Semester_4\OS\Practical-2\practical>
```

This screenshot is similar to the previous one, showing the same Command Prompt window and the same "find" command output. However, the user has now entered the command "more +1 file.txt". The output of this command is not visible in the screenshot, as the prompt is waiting for the next input. The taskbar at the bottom shows the time as 23:08.

15. Print the last N number of data of the given input.

We displayed the last few lines of a file.

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window shows a series of commands and their outputs. The first command is "C:\Semester_4\OS\Practical-2\practical>find "Linux" file.txt", which outputs "----- FILE.TXT". The second command is "C:\Semester_4\OS\Practical-2\practical>more +1 file.txt". The third command is "C:\Semester_4\OS\Practical-2\practical>type file.txt | more", which outputs "Hello this is OS practical". The prompt then returns to "C:\Semester_4\OS\Practical-2\practical>". The taskbar at the bottom shows various application icons and system status information including "ENG IN", "23:08", and "12-01-2025".

```
C:\Semester_4\OS\Practical-2\practical>find "Linux" file.txt
----- FILE.TXT

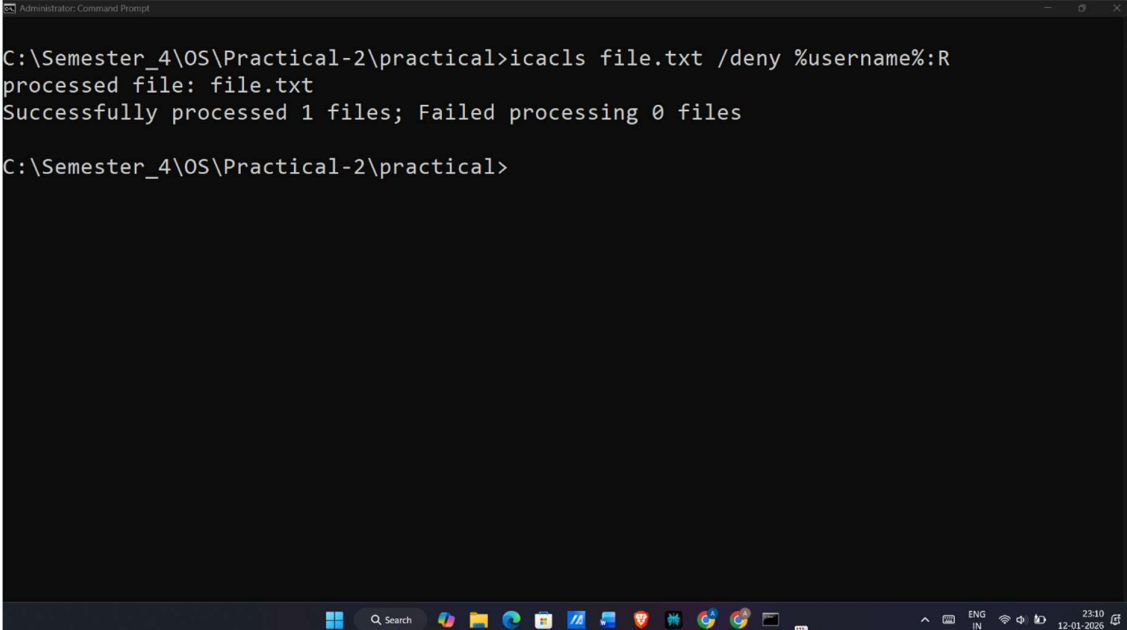
C:\Semester_4\OS\Practical-2\practical>more +1 file.txt

C:\Semester_4\OS\Practical-2\practical>type file.txt | more
Hello this is OS practical

C:\Semester_4\OS\Practical-2\practical>
```

16. Remove read permission from owner of the file.

We removed read permission from the file owner.

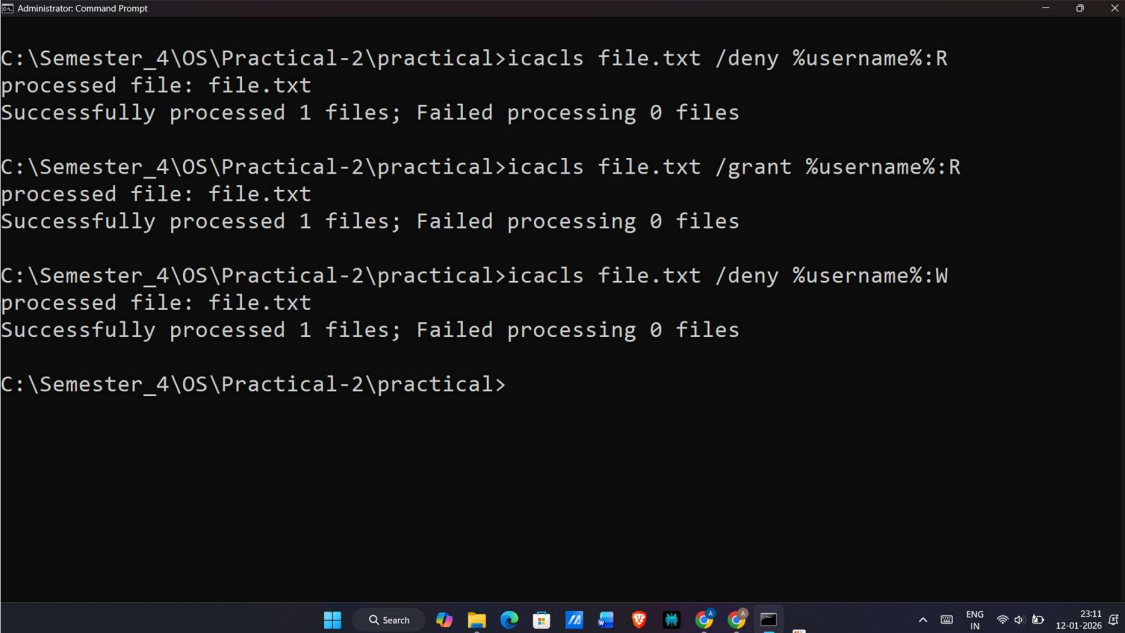
A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window shows a single command and its output: "C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:R" followed by "processed file: file.txt" and "Successfully processed 1 files; Failed processing 0 files". The prompt then returns to "C:\Semester_4\OS\Practical-2\practical>". The taskbar at the bottom shows various application icons and system status information including "ENG IN", "23:10", and "12-01-2025".

```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```


17. Add read permission to owner and remove write permission and add write permission to group.

We modified file permissions.



```
Administrator: Command Prompt

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

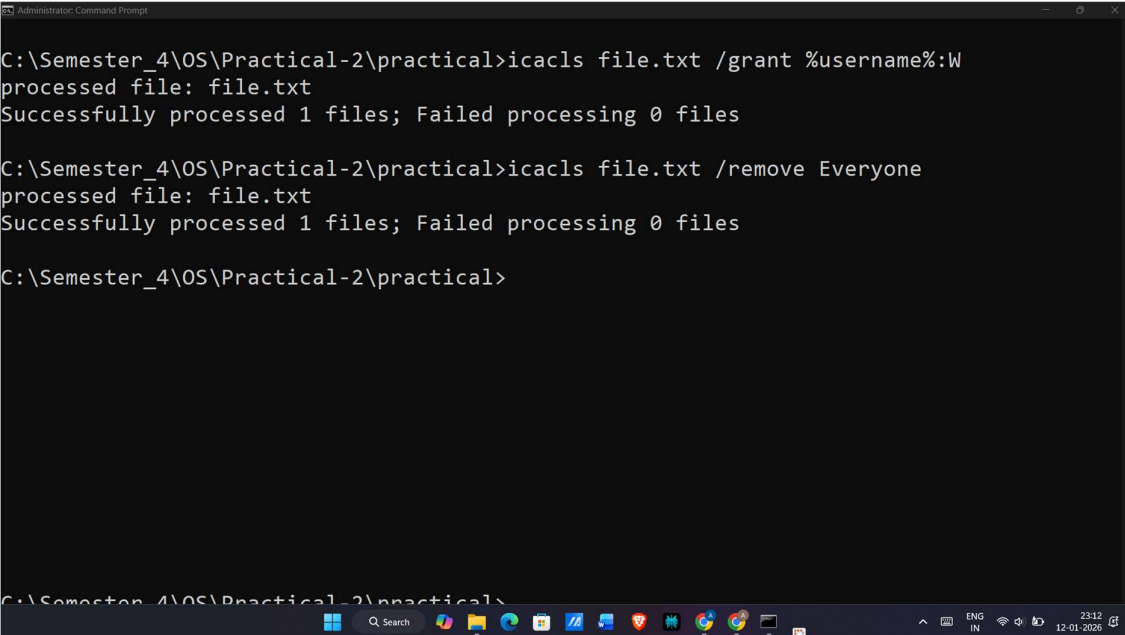
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:W
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

18. Add write permission to owner and remove permission from others.

We updated file security permissions.



```
Administrator: Command Prompt

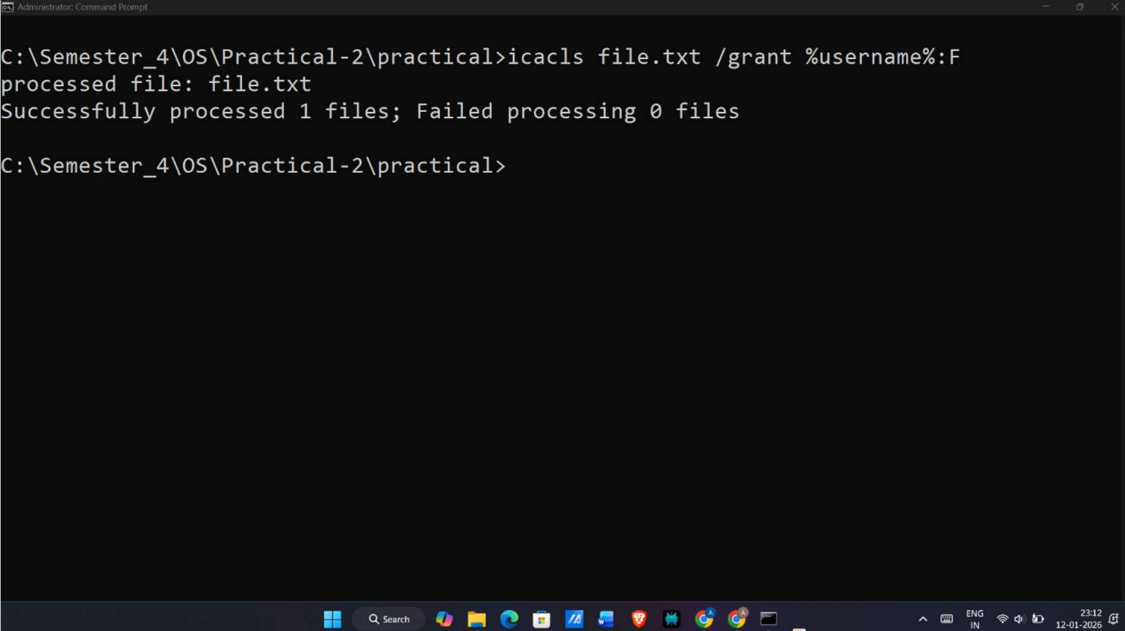
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:W
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /remove Everyone
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

19. Assign permission to users.

We assigned permissions to the user.

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window shows the execution of the command "C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:F". The output is "processed file: file.txt" followed by "Successfully processed 1 files; Failed processing 0 files". The prompt then returns to "C:\Semester_4\OS\Practical-2\practical>". The taskbar at the bottom shows various application icons and system status icons on the right, including the date and time "23:12 12-01-2025".

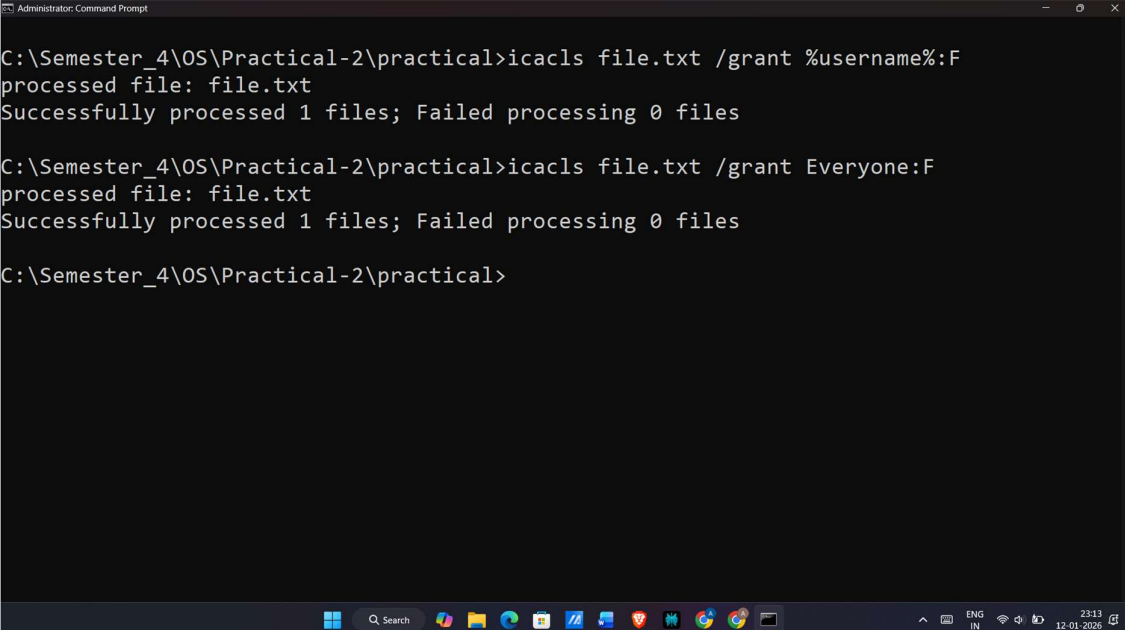
```
Administrator: Command Prompt

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:F
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

20. Assign R/W/X permission to others.

We granted full permissions to others.

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". It shows the same command and output as the previous screenshot. Then, it shows the command "C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:F" being executed, with the same output: "processed file: file.txt" and "Successfully processed 1 files; Failed processing 0 files". The prompt returns to "C:\Semester_4\OS\Practical-2\practical>". The taskbar at the bottom is identical to the previous screenshot, showing the date and time "23:13 12-01-2025".

```
Administrator: Command Prompt

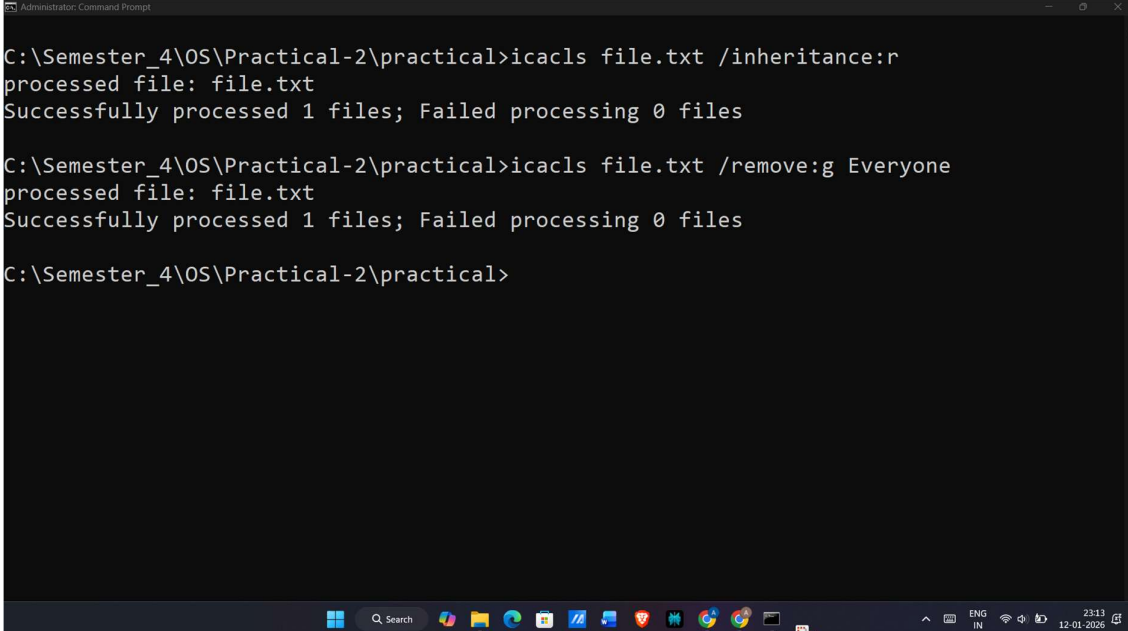
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:F
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:F
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

21. Remove all permissions from all users.

We removed all access permissions.



```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /inheritance:r
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

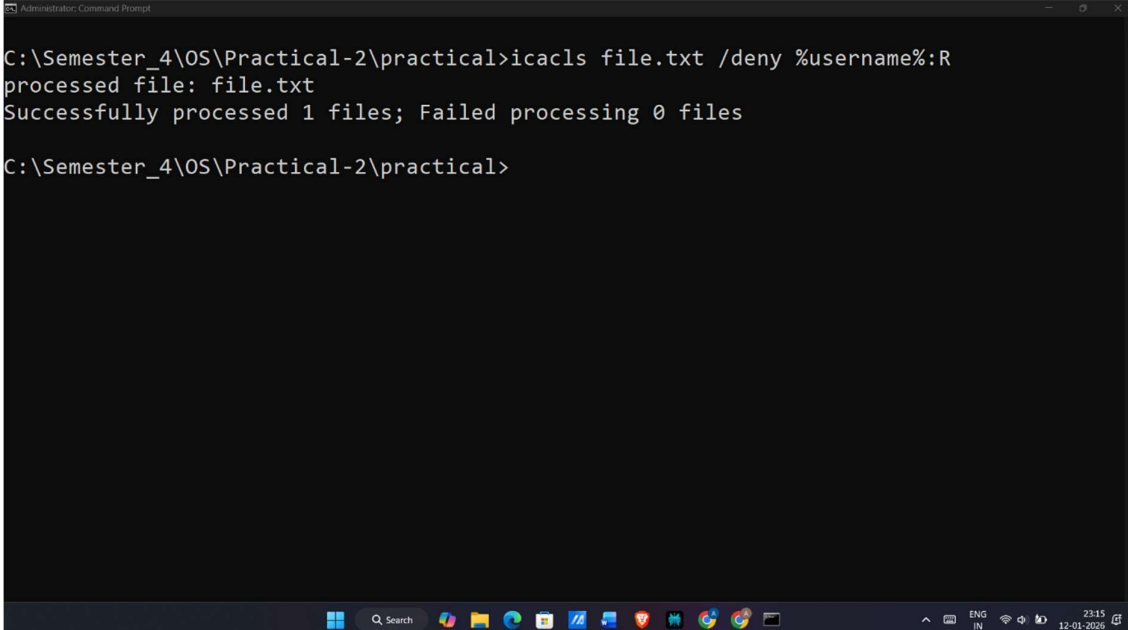
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /remove:g Everyone
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The user is in the directory "C:\Semester_4\OS\Practical-2\practical". They execute the command "icacls file.txt /inheritance:r", which returns "processed file: file.txt" and "Successfully processed 1 files; Failed processing 0 files". Then they execute "icacls file.txt /remove:g Everyone", which also returns "processed file: file.txt" and "Successfully processed 1 files; Failed processing 0 files". The prompt ends with "C:\Semester_4\OS\Practical-2\practical>". The Windows taskbar is visible at the bottom with various icons and a system clock showing 23:13 on 12-01-2025.

22. Remove read permission from user using absolute mode.

We modified permissions using access control.



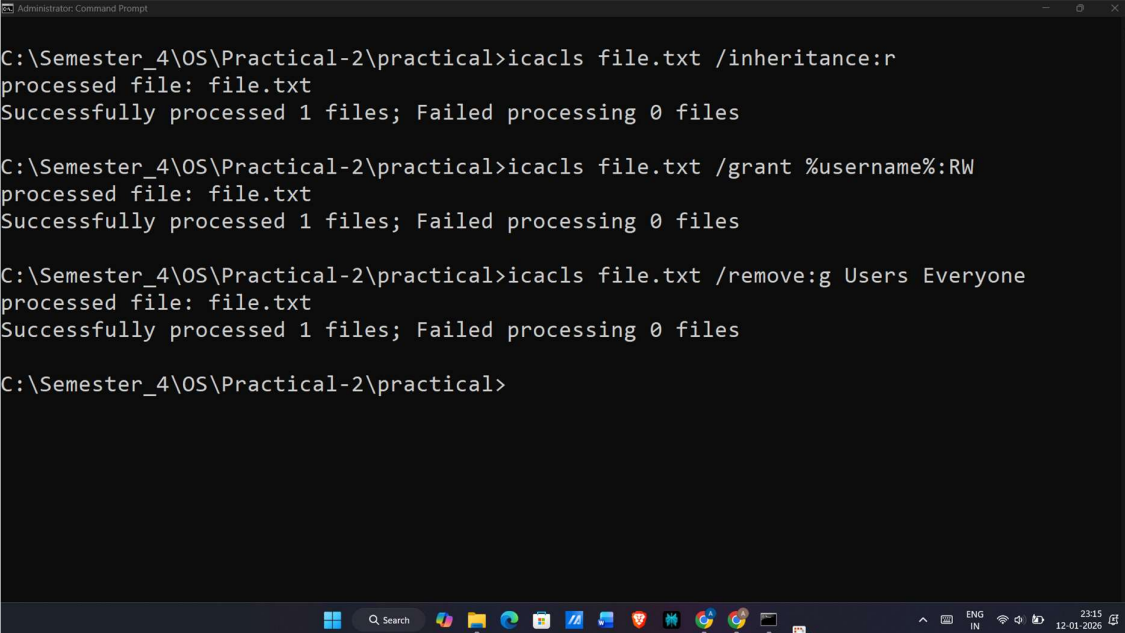
```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The user is in the directory "C:\Semester_4\OS\Practical-2\practical". They execute the command "icacls file.txt /deny %username%:R", which returns "processed file: file.txt" and "Successfully processed 1 files; Failed processing 0 files". The prompt ends with "C:\Semester_4\OS\Practical-2\practical>". The Windows taskbar is visible at the bottom with various icons and a system clock showing 23:15 on 12-01-2025.

23. Add R/W permission to owner and remove permissions from group and others using absolute mode.

We restricted file access to the owner only.



```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /inheritance:r
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

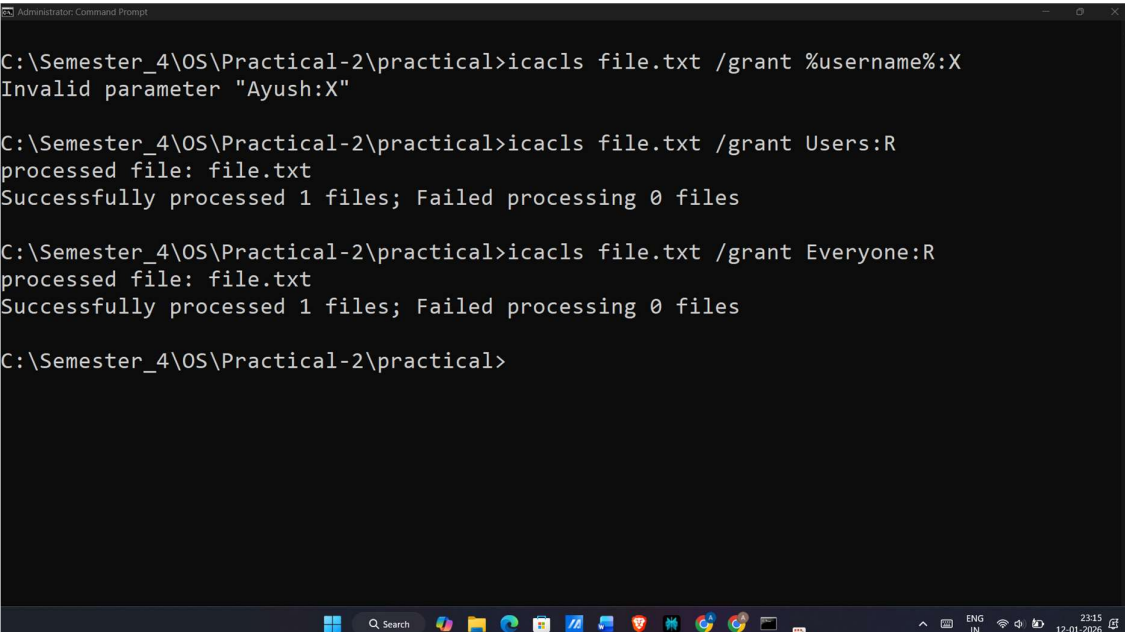
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:RW
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /remove:g Users Everyone
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

24. Add execute permission to owner and read permission to group and others.

We changed execute and read permissions.



```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:X
Invalid parameter "Ayush:X"

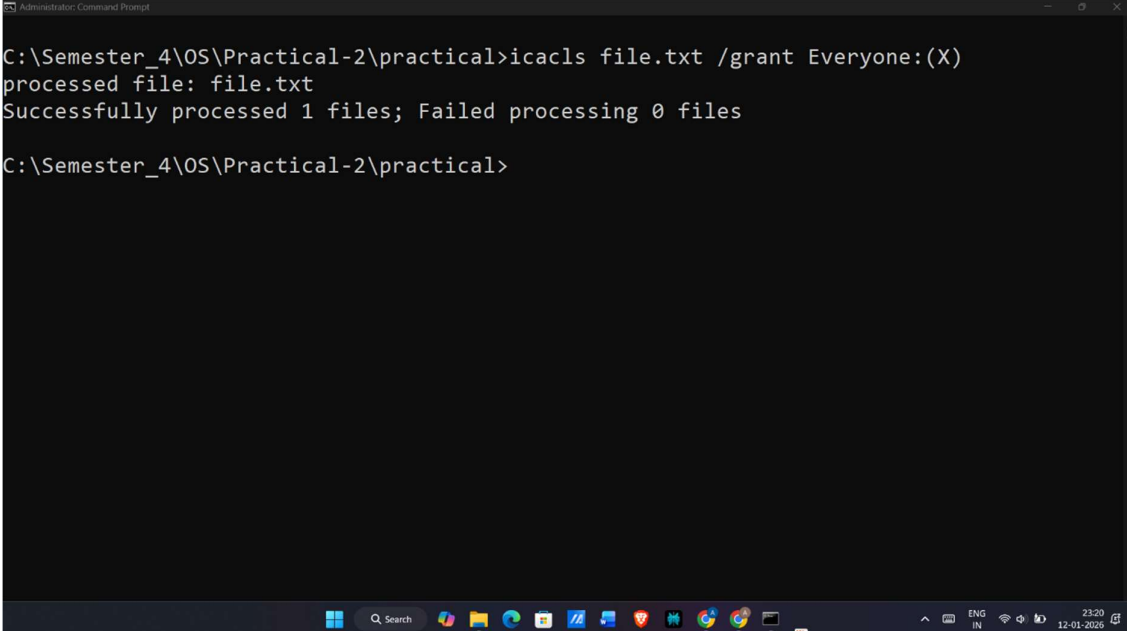
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Users:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

25. Add execute permission to all users.

We allowed execution rights to all users.

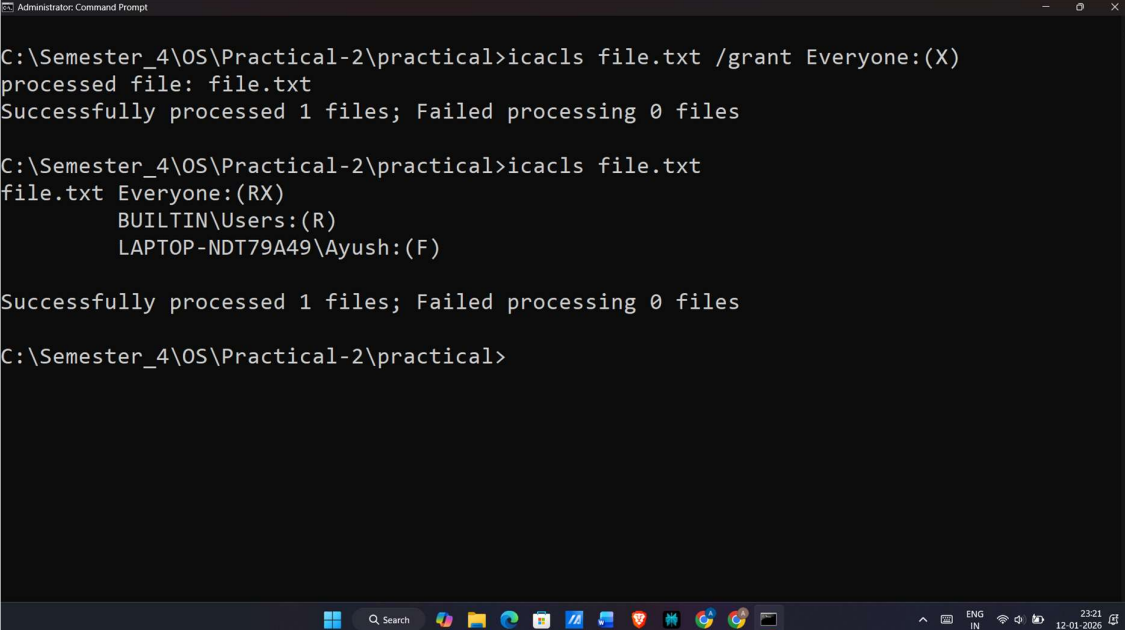


```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:(X)
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```

Result

All the given operating system commands were executed successfully and the required operations were performed.



```
Administrator: Command Prompt
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:(X)
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>icacls file.txt
file.txt Everyone:(RX)
        BUILTIN\Users:(R)
        LAPTOP-NDT79A49\Ayush:(F)

Successfully processed 1 files; Failed processing 0 files

C:\Semester_4\OS\Practical-2\practical>
```