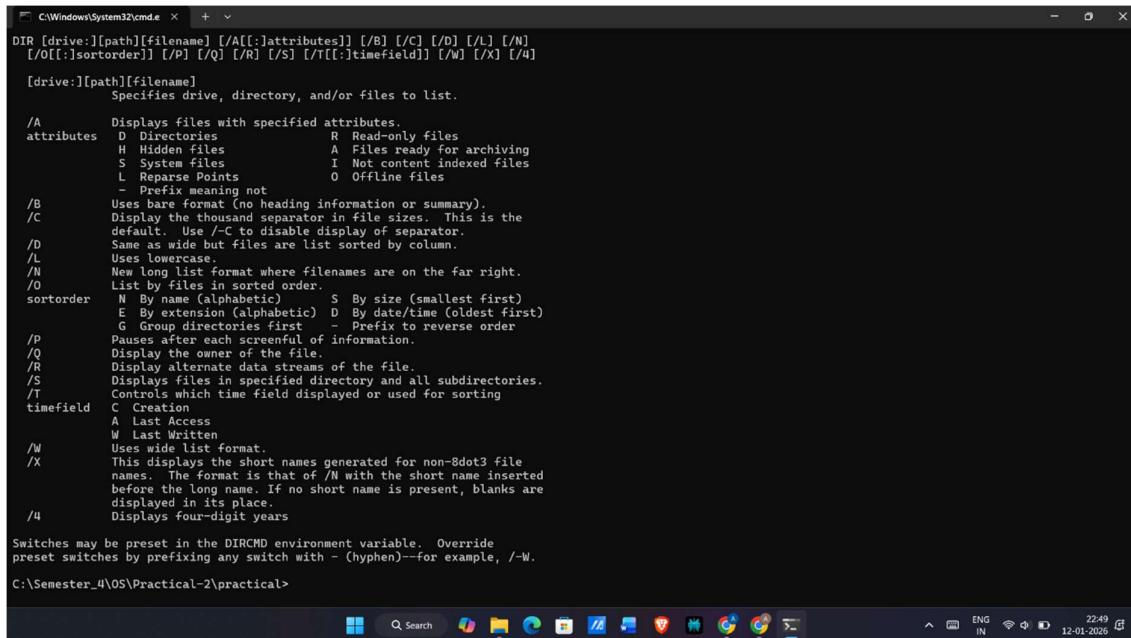


PRACTICAL 2 OUTPUT

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.
        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

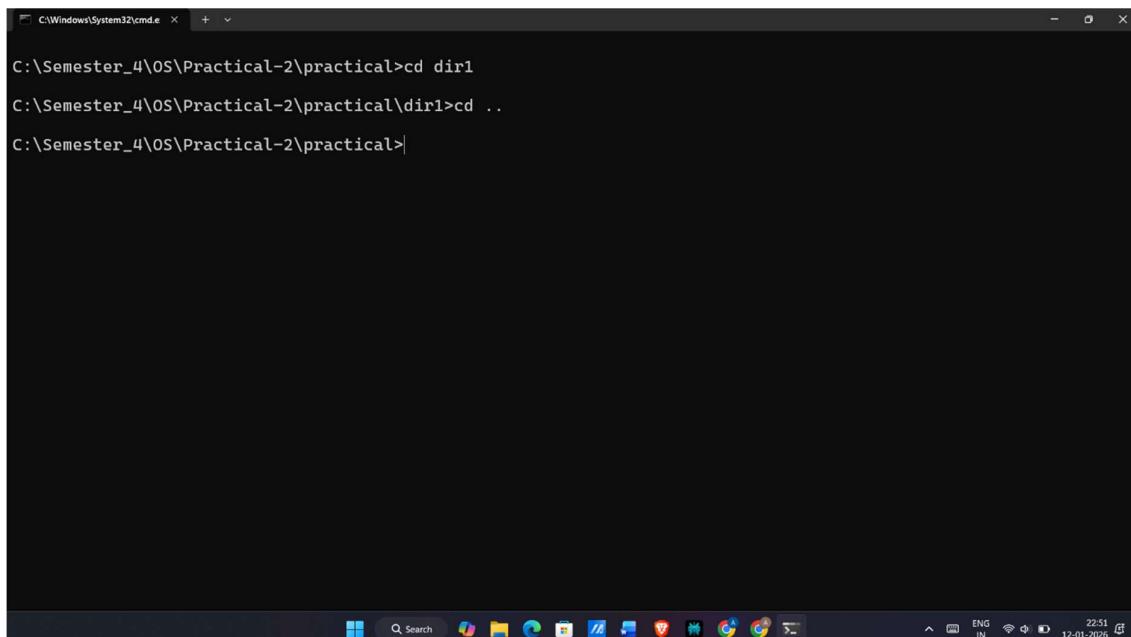
/B      Uses brief format (no heading information or summary).
/C      Display the thousand separator in file sizes. This is the
        default. Use /C to disable display of separator.
/D      Same as /W but files are list sorted by column.
/L      Uses lowercase.
/N      New long list format where filenames are on the far right.
/O      List by files in sorted order
        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
        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.

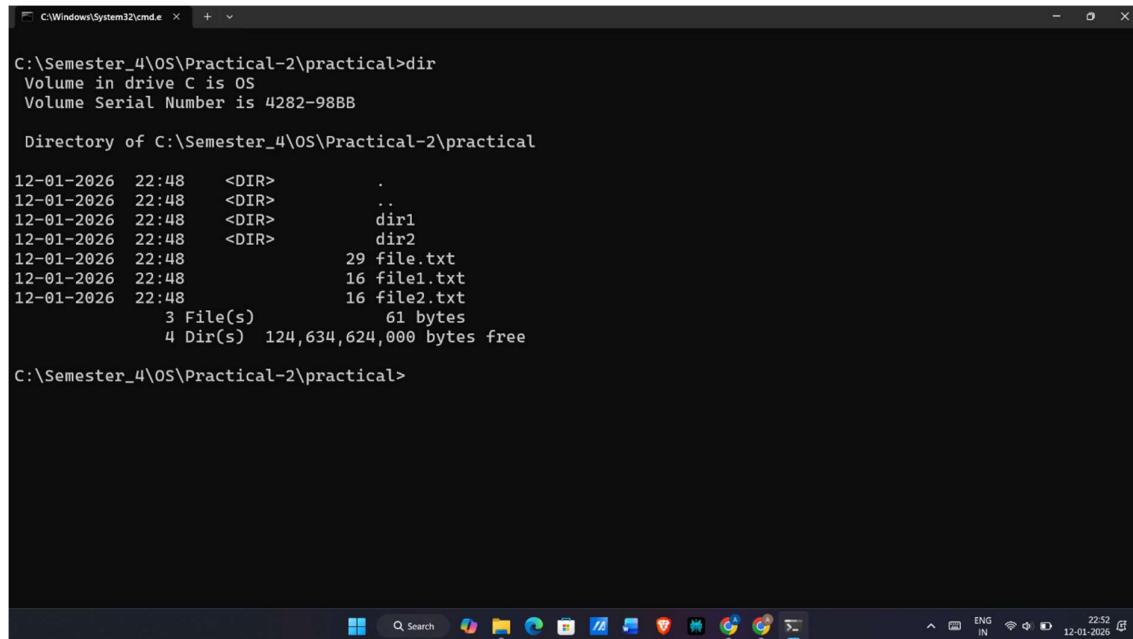
We changed the current working directory.



```
C:\Windows\System32\cmd.exe + - 
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:\Windows\System32\cmd.exe + - X

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

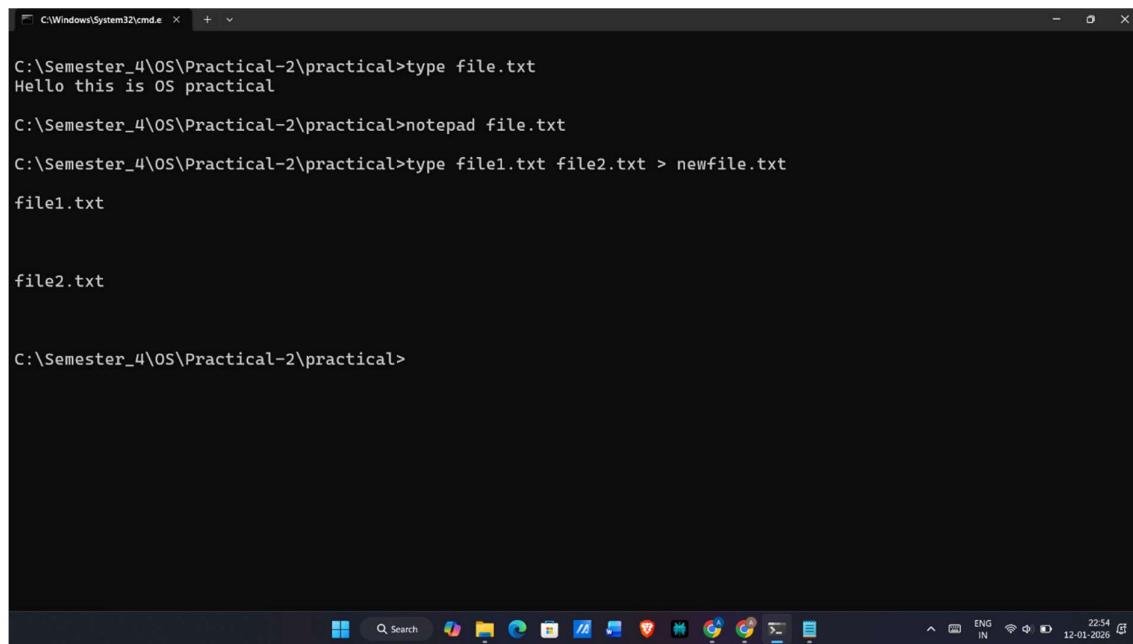
Directory of C:\Semester_4\OS\Practical-2\practical

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:\Windows\System32\cmd.exe + - X

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

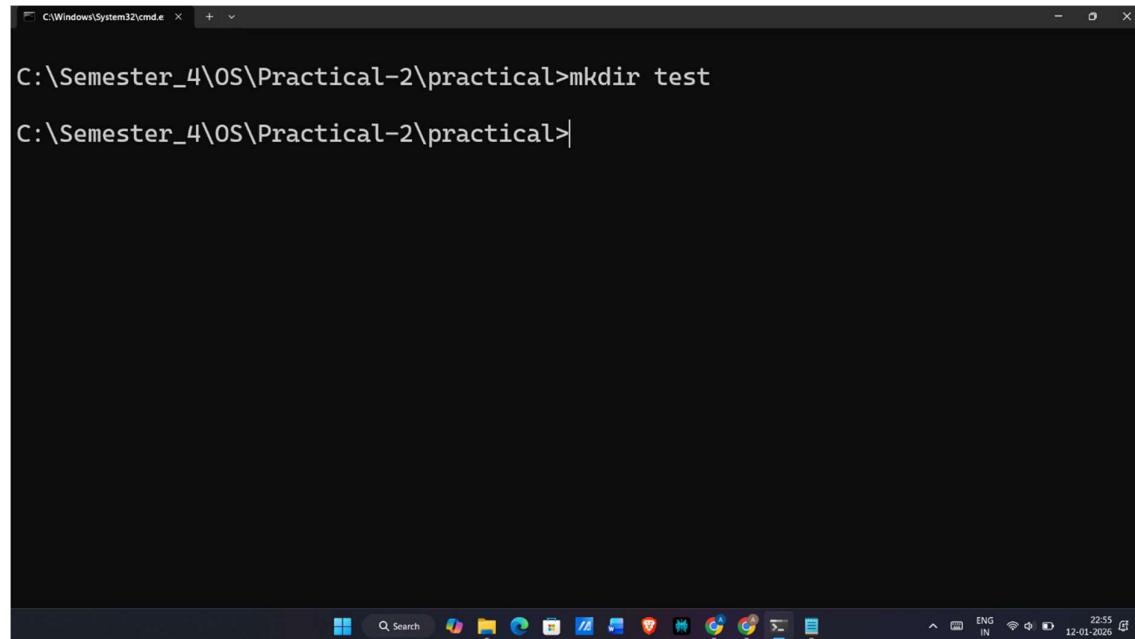
C:\Semester_4\OS\Practical-2\practical>type file1.txt file2.txt > newfile.txt
file1.txt

file2.txt

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

5. Create a new directory under any directory.

We created a new directory.



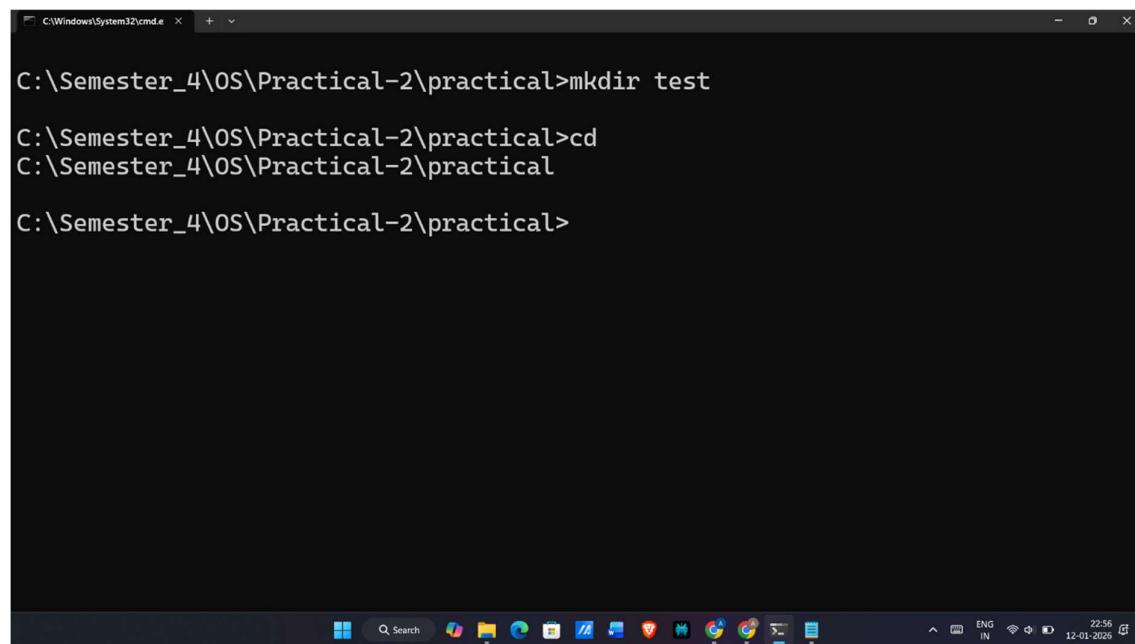
A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows the command "mkdir test" being entered at the prompt "C:\Semester_4\OS\Practical-2\practical>". The command has been partially typed, with the greater-than sign ">" visible. The background of the window is black, and the text is white. The window is positioned above a taskbar that contains various icons for applications like File Explorer, Edge, and File History. The system tray at the bottom right shows the date as 12-01-2026 and the time as 22:55.

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

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

6. Display the current working directory of the terminal.

We displayed the current directory path.



A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows the commands "mkdir test", "cd", and "cd" being entered at the prompt "C:\Semester_4\OS\Practical-2\practical>". The first "cd" command has been partially typed. The second "cd" command has been fully typed and is followed by a greater-than sign ">". The background of the window is black, and the text is white. The window is positioned above a taskbar that contains various icons for applications like File Explorer, Edge, and File History. The system tray at the bottom right shows the date as 12-01-2026 and the time as 22:56.

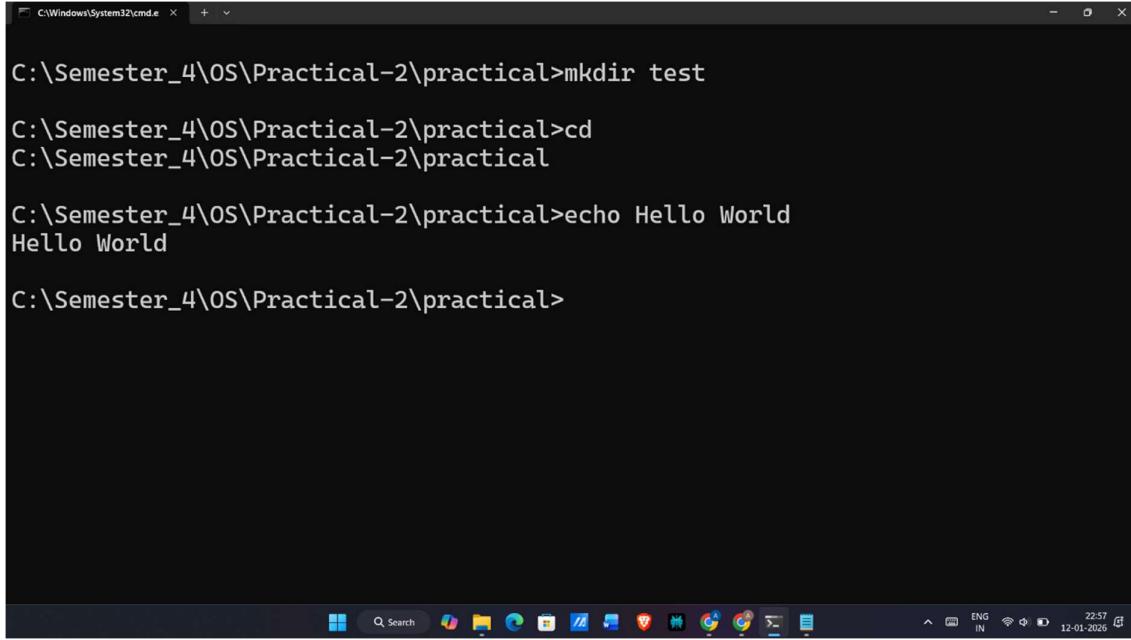
```
C:\Semester_4\OS\Practical-2\practical>mkdir test
```

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

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

7. Write its arguments to standard output.

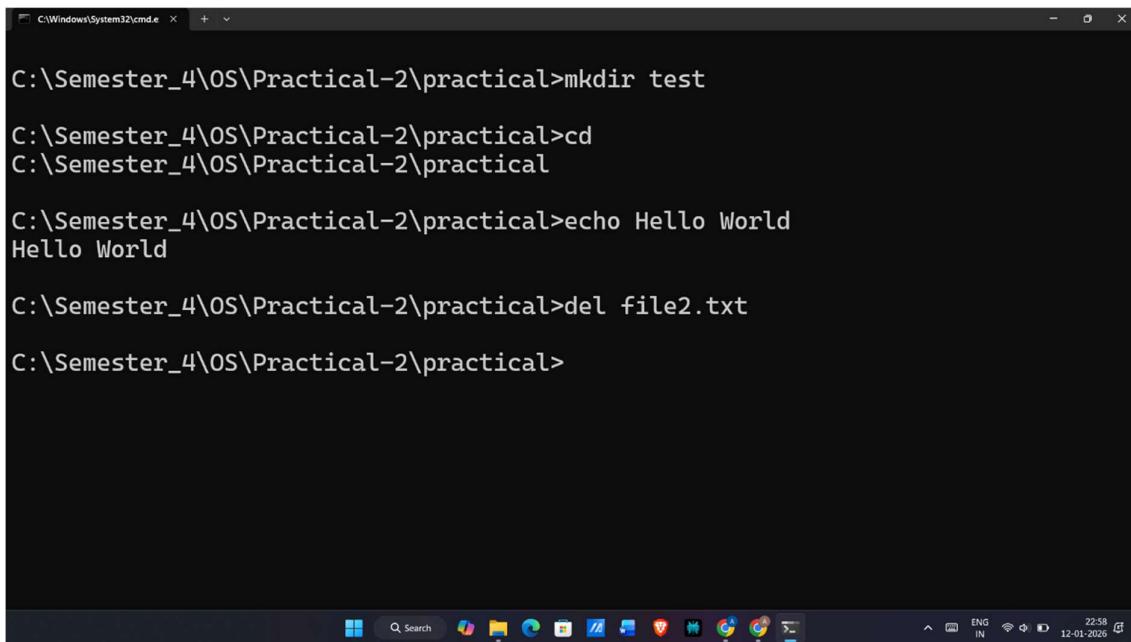
We printed text on the screen.



```
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>
```

8. Remove a file.

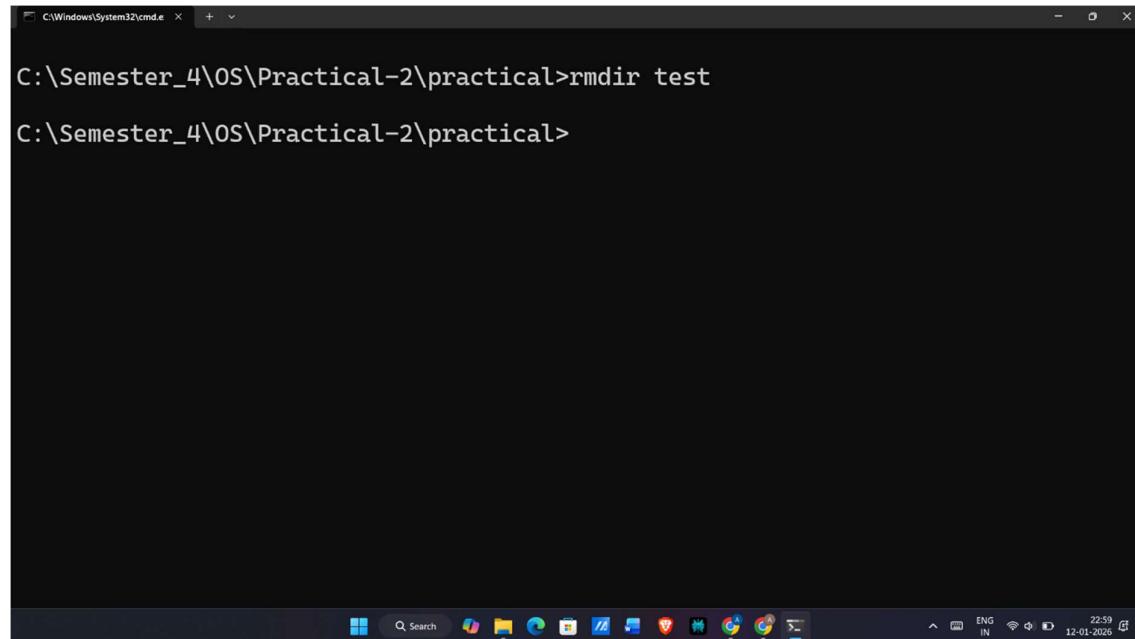
We deleted a file from the system.



```
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>
```

9. Delete a directory.

We removed a directory.

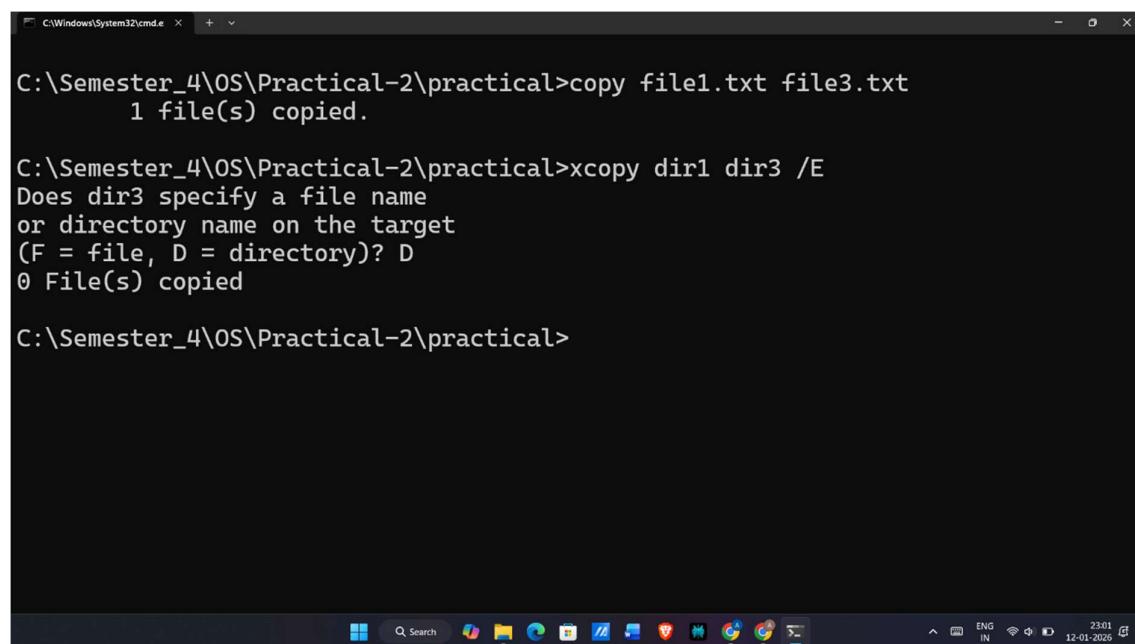


A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows the command "rmdir test" being run at the prompt "C:\Semester_4\OS\Practical-2\practical>". The command is executed successfully, and the window then displays the prompt again. The taskbar at the bottom of the screen shows various pinned icons, and the system tray indicates the date and time as 12-01-2026, 22:59.

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

10. Copy a file or directory.

We copied files and folders.



A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows two commands being run at the prompt "C:\Semester_4\OS\Practical-2\practical>". 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 to specify if "dir3" is a file name or directory name on the target, with options F (file) or D (directory). The user selects "D", and the command is completed with "0 File(s) copied". The window then displays the prompt again. The taskbar at the bottom of the screen shows various pinned icons, and the system tray indicates the date and time as 12-01-2026, 23:01.

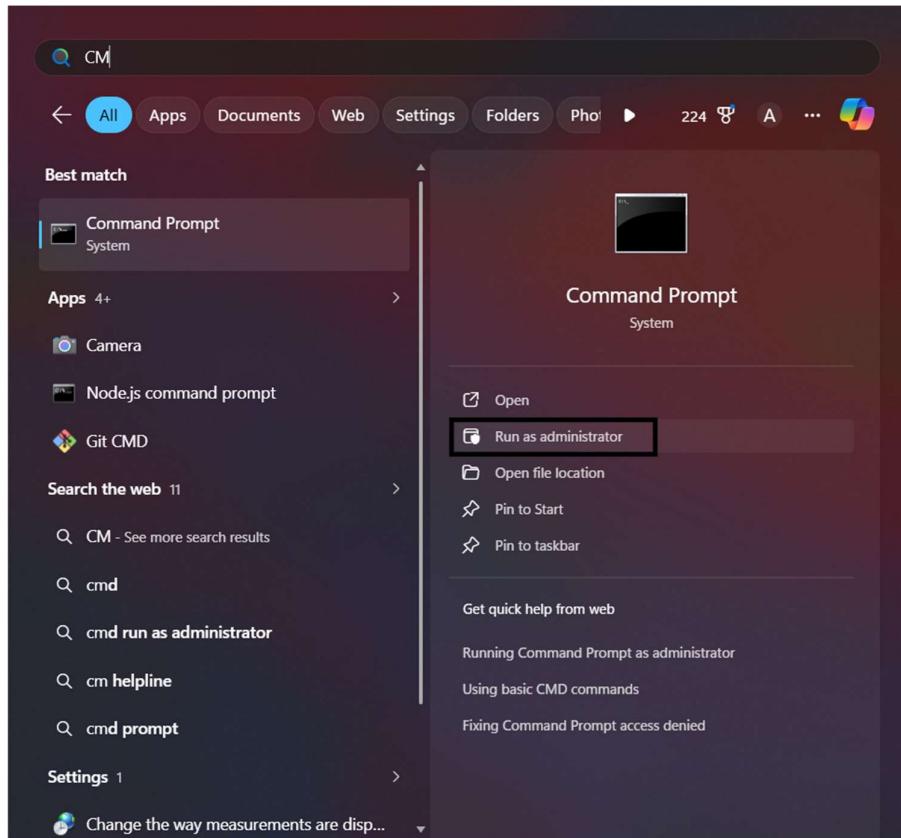
```
C:\Semester_4\OS\Practical-2\practical>copy file1.txt file3.txt
1 file(s) copied.

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>
```

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.

A screenshot of a Windows Command Prompt window titled 'Administrator: Command Prompt'. The window shows the following command-line session:

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.26100.7462]
(c) Microsoft Corporation. All rights reserved.

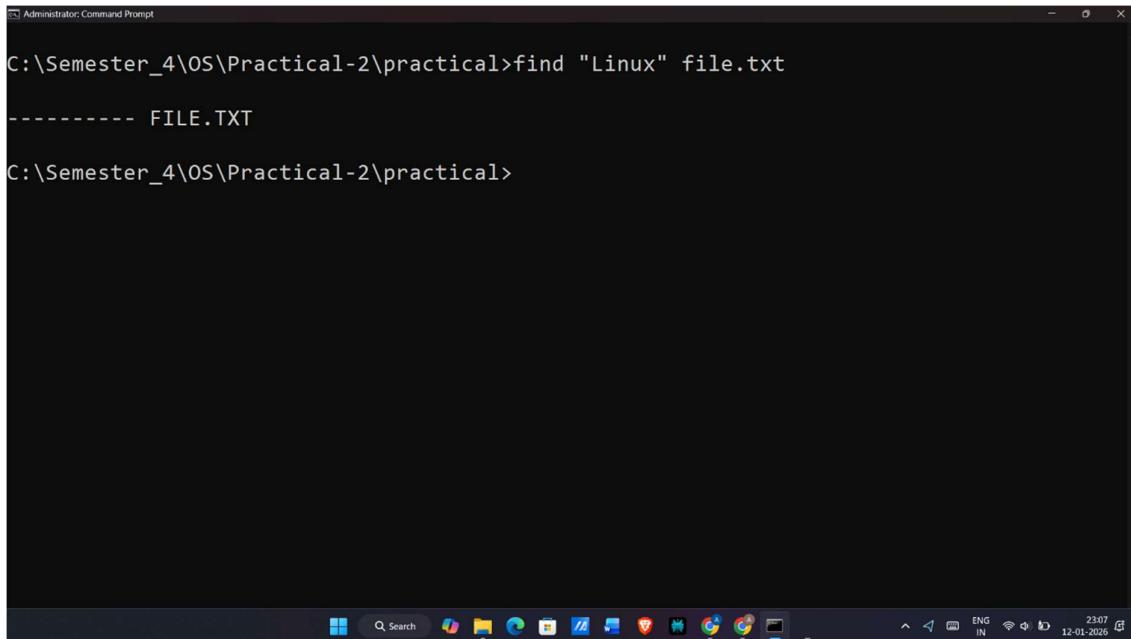
C:\Windows\System32>cd /d C:\Semester_4\OS\Practical-2\practical
C:\Semester_4\OS\Practical-2\practical>move file3.txt dir1
    1 file(s) moved.

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

The window has a dark theme. At the bottom, the taskbar displays various pinned icons, and the system tray shows the date and time as '12-01-2026 23:06'.

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

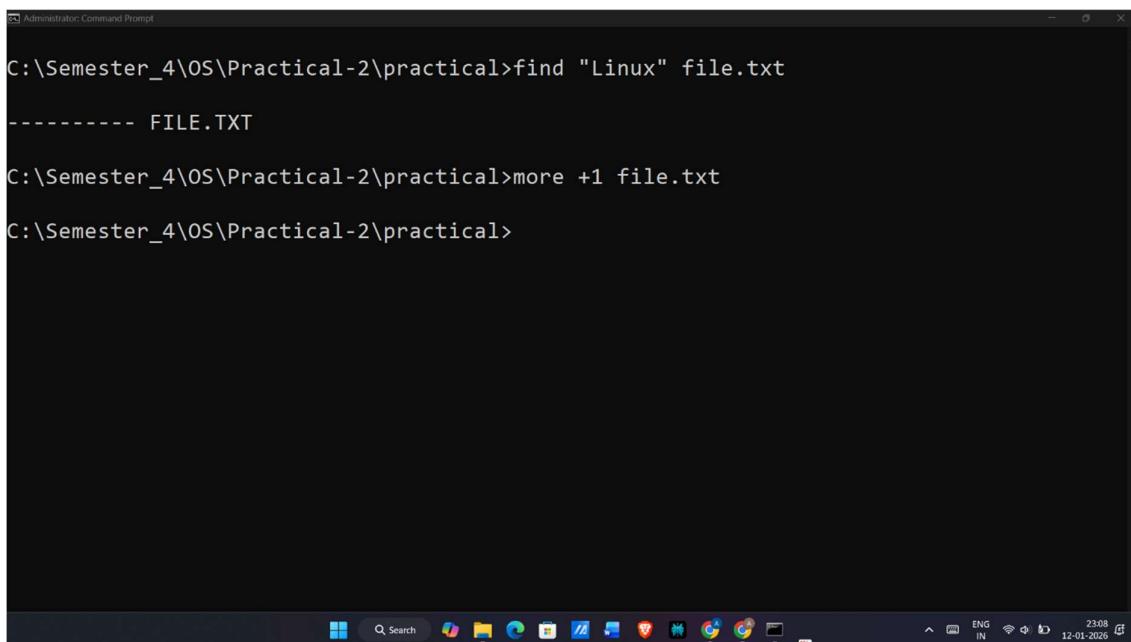
We searched for a word inside a file.



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

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

We displayed the first few lines of a file.



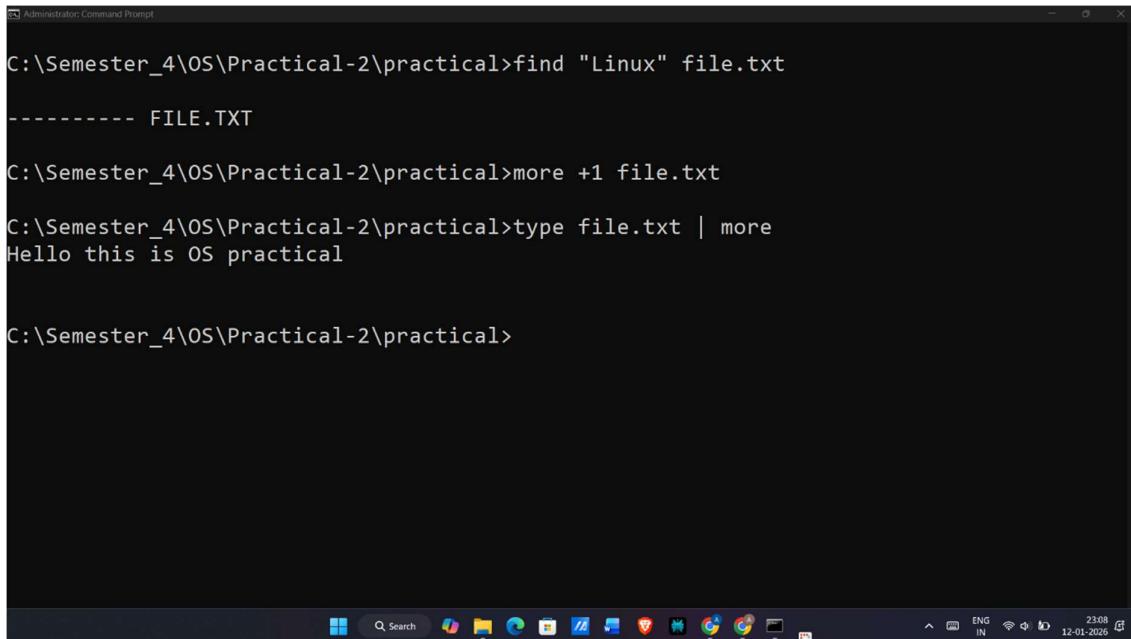
```
C:\Semester_4\OS\Practical-2\practical>find "Linux" file.txt
----- FILE.TXT

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

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

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

We displayed the last few lines of a file.



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

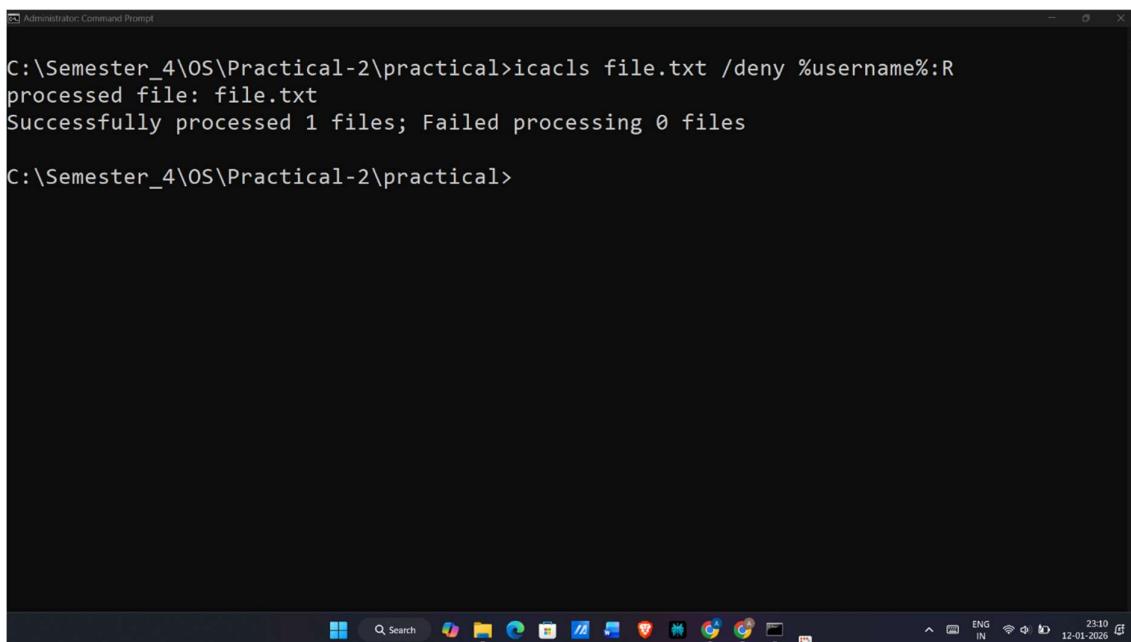
C:\Semester_4\OS\Practical-2\practical>more +1 file.txt

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.

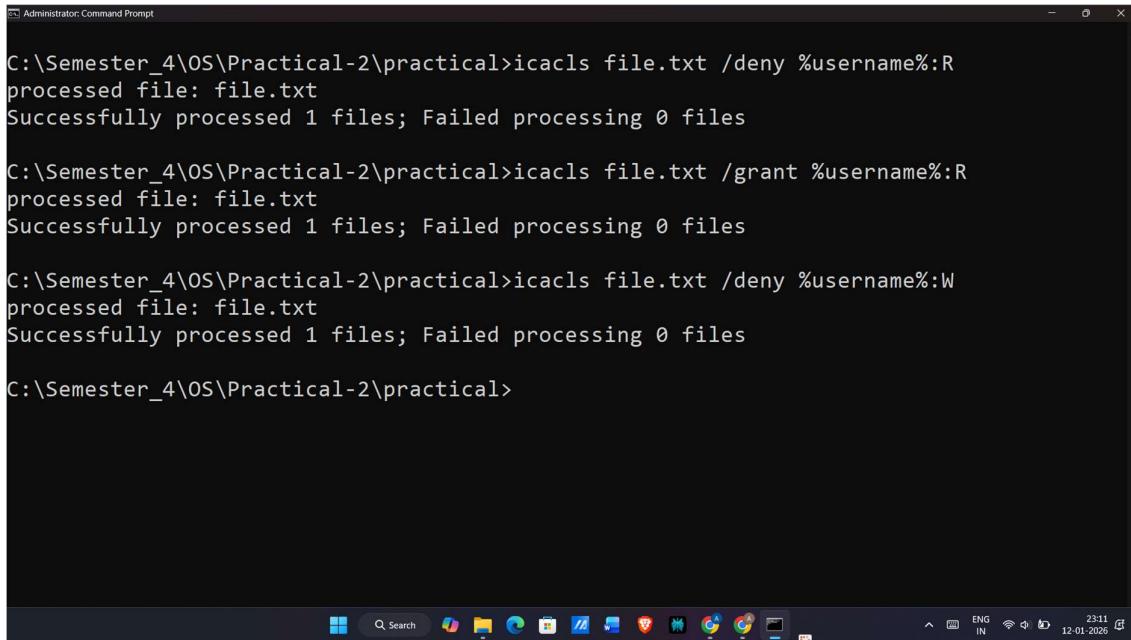


```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /deny %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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.



```
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

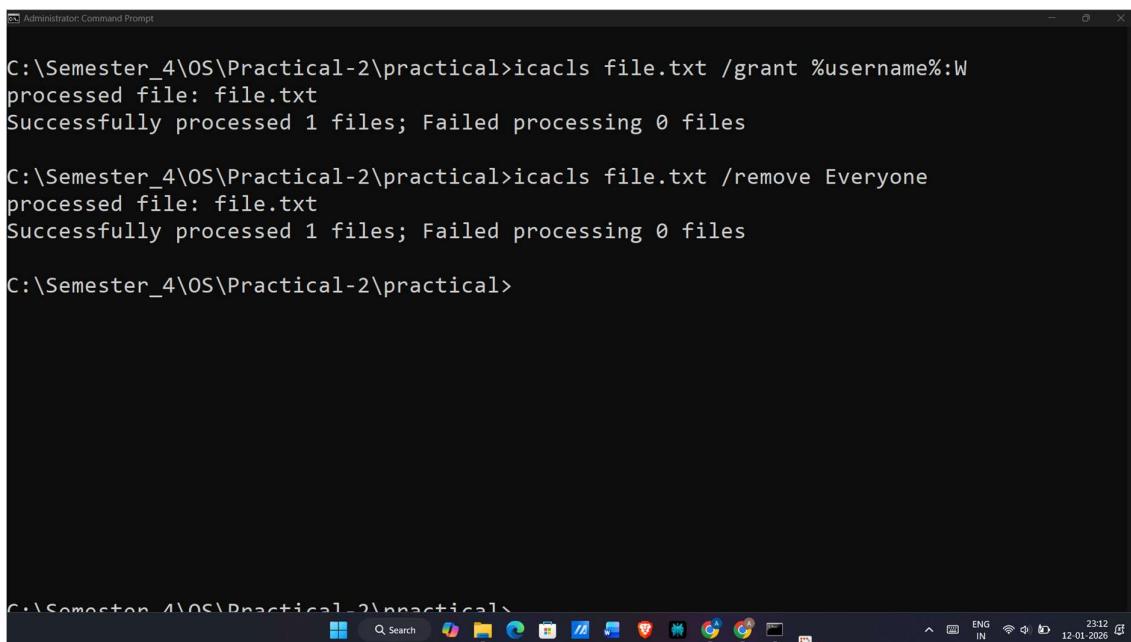
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:R
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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.



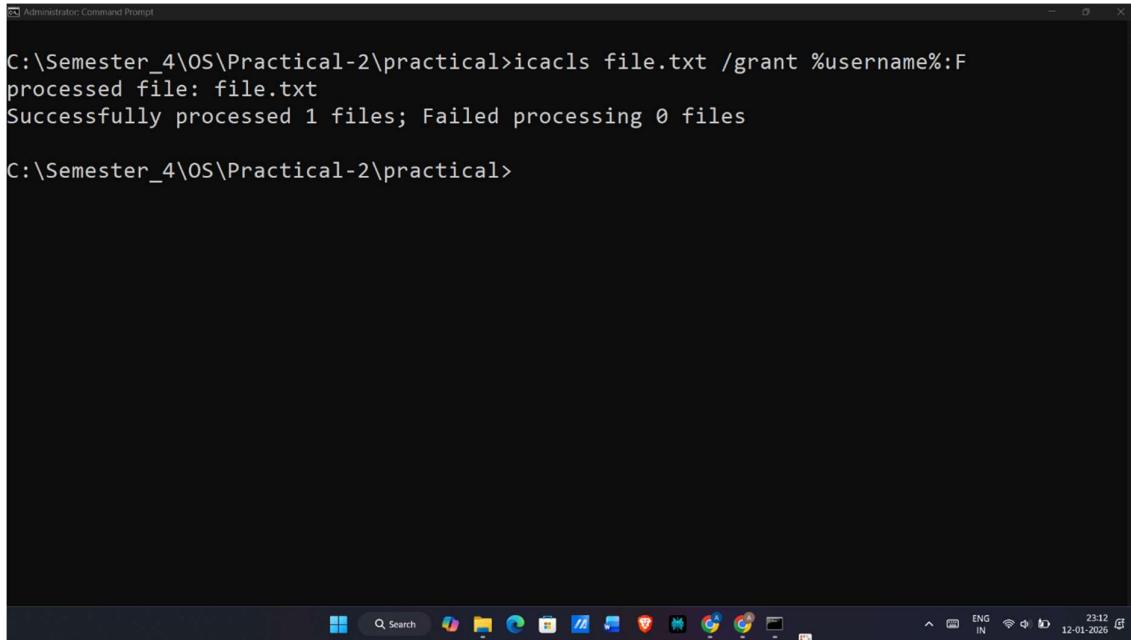
```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:W
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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.

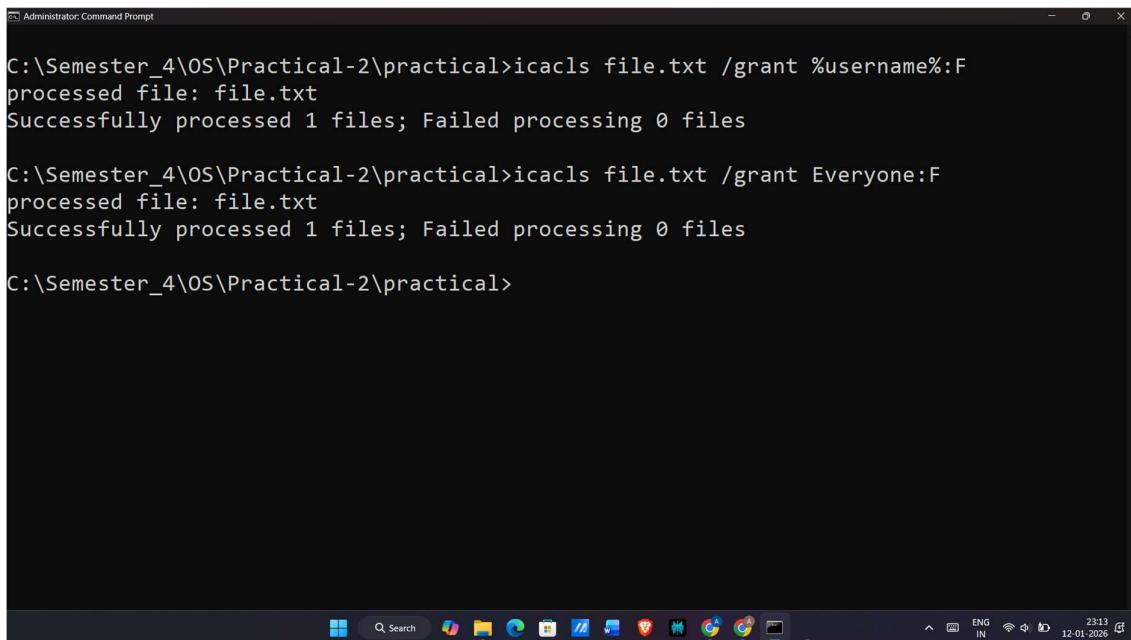


```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:F
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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

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

We granted full permissions to others.



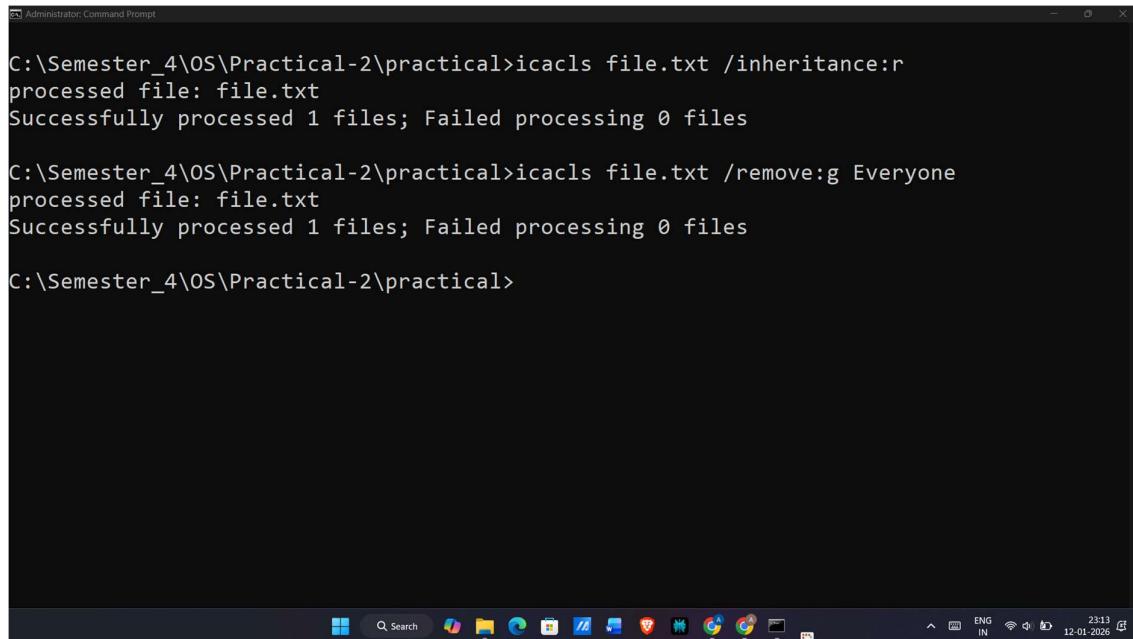
```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant %username%:F
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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.

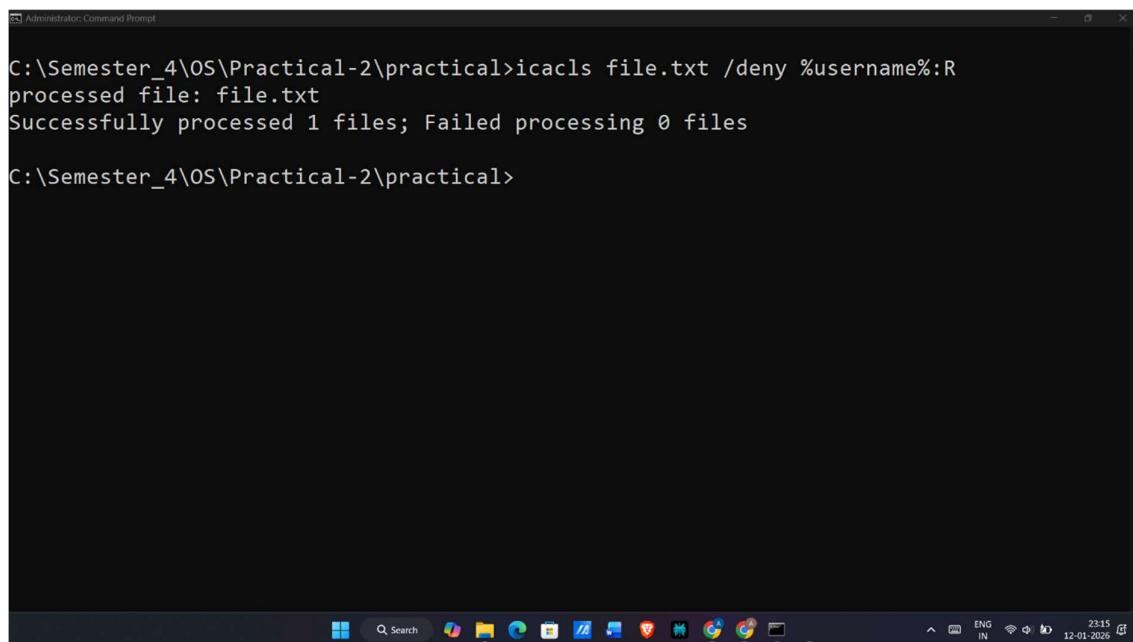
We removed all access permissions.



```
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>
```

22. Remove read permission from user using absolute mode.

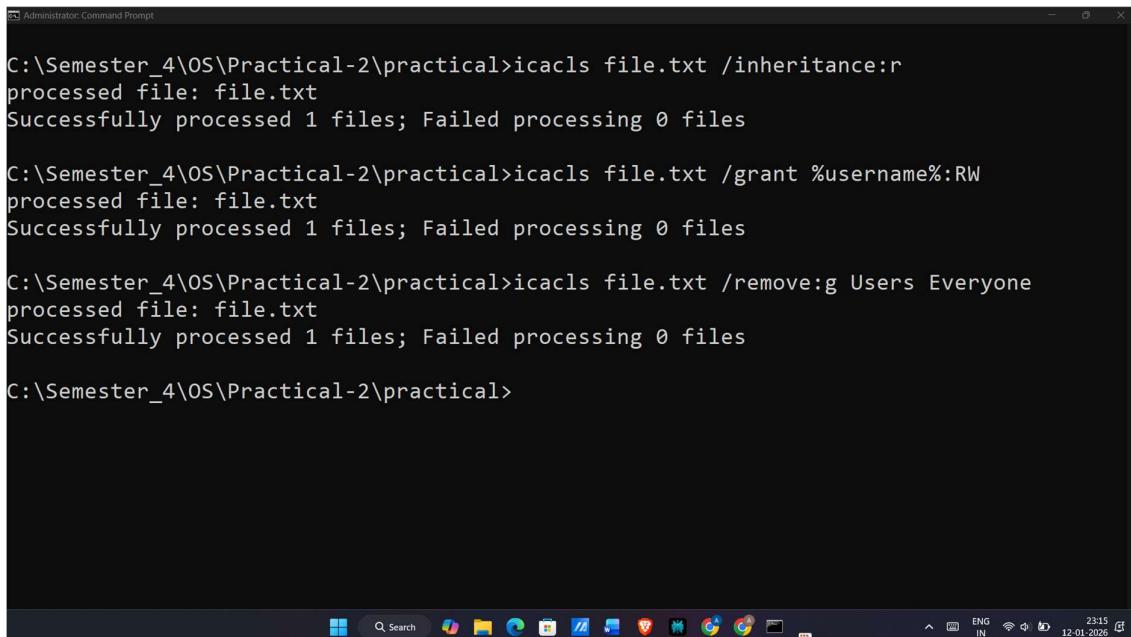
We modified permissions using access control.



```
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>
```

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

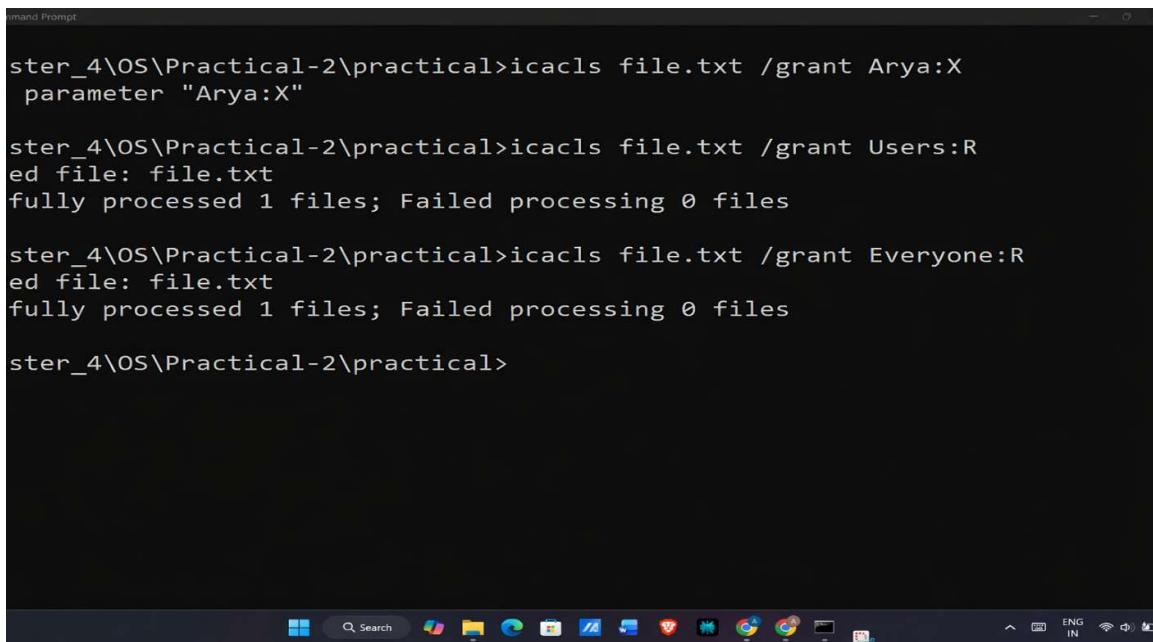
We restricted file access to the owner only.



```
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.

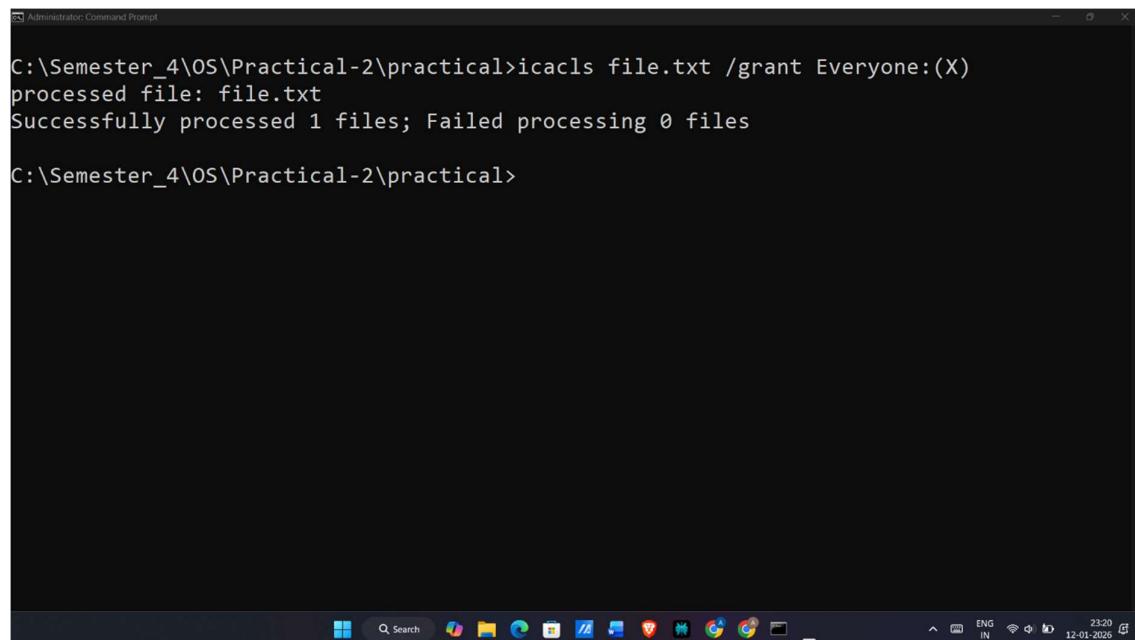
We changed execute and read permissions.



```
ster_4\OS\Practical-2\practical>icacls file.txt /grant Arya:X  
parameter "Arya:X"  
  
ster_4\OS\Practical-2\practical>icacls file.txt /grant Users:R  
ed file: file.txt  
fully processed 1 files; Failed processing 0 files  
  
ster_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:R  
ed file: file.txt  
fully processed 1 files; Failed processing 0 files  
  
ster_4\OS\Practical-2\practical>
```

25. Add execute permission to all users.

We allowed execution rights to all users.

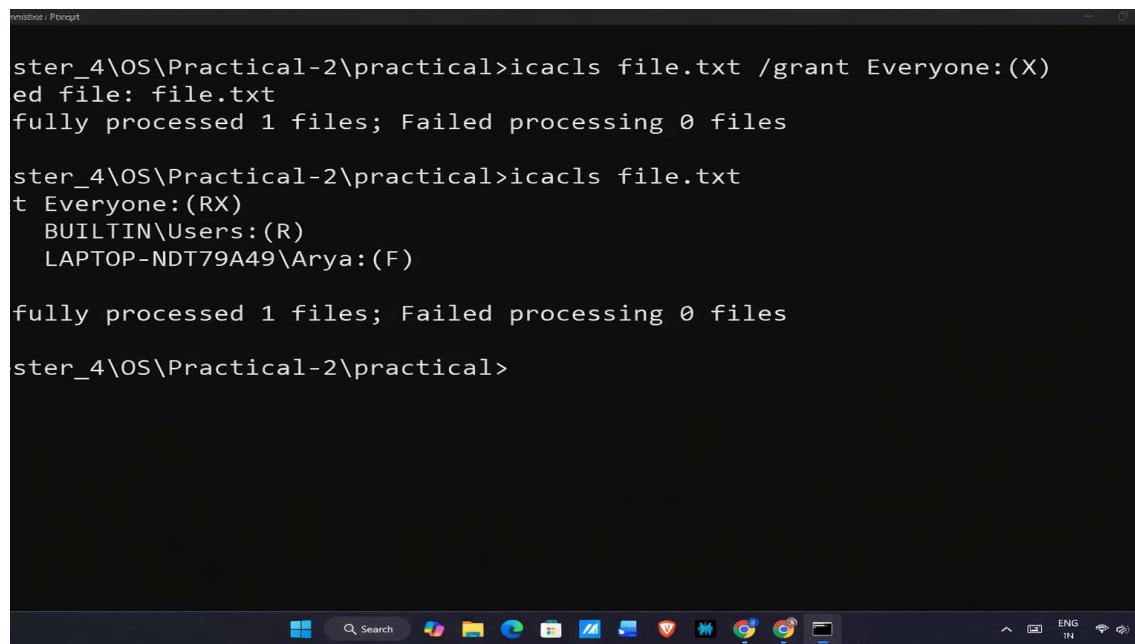


```
C:\Semester_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:(X)
processed file: file.txt
Successfully processed 1 files; Failed processing 0 files

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

Result

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



```
ster_4\OS\Practical-2\practical>icacls file.txt /grant Everyone:(X)
ed file: file.txt
fully processed 1 files; Failed processing 0 files

ster_4\OS\Practical-2\practical>icacls file.txt
t Everyone:(RX)
    BUILTIN\Users:(R)
    LAPTOP-NDT79A49\Arya:(F)

fully processed 1 files; Failed processing 0 files

ster_4\OS\Practical-2\practical>
```