LONDON METROPOLITAN UNIVERSITY

Islington college
(इस्लिङ्टन कलेज)

## Module Code & Module Title

## Level 5 – Network Operating Systems

## Assessment Type

## Logbook 7

## Semester

## 2023/24 Spring/Autumn


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*I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.*

# Table of Contents

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# 1. AIM

To perform several Linux commands to create or manipulate directories and files.

# 2. STEPS

## 2.1. Step 1

A directory and subdirectory was creating using linux command mkdir.

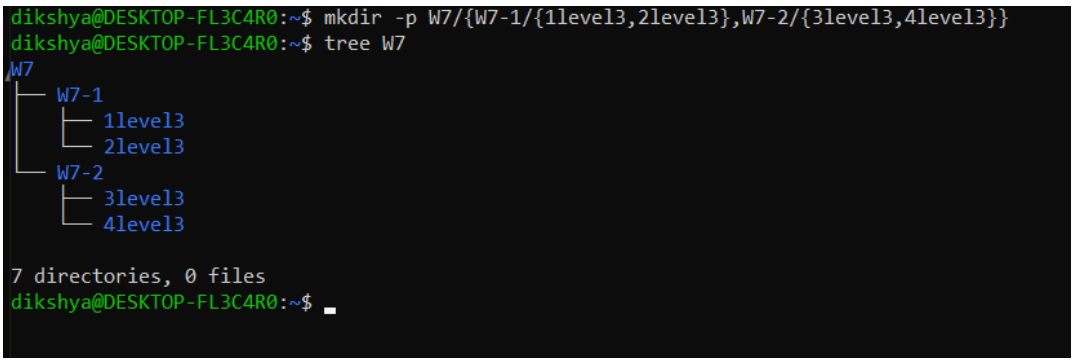



*Figure 1: Creating Directory*

## 2.2. Step 2

Home directory was changed to 1level3 directory using relative pathname.

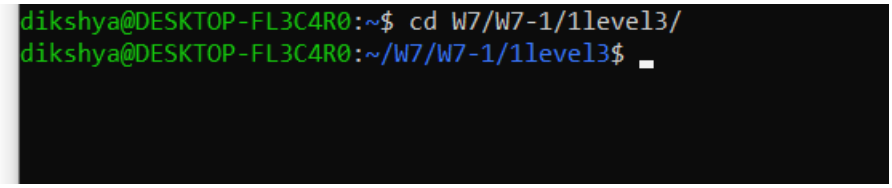



*Figure 2: Changing home directory*

1level3 directory was changed to 2level3 directory.

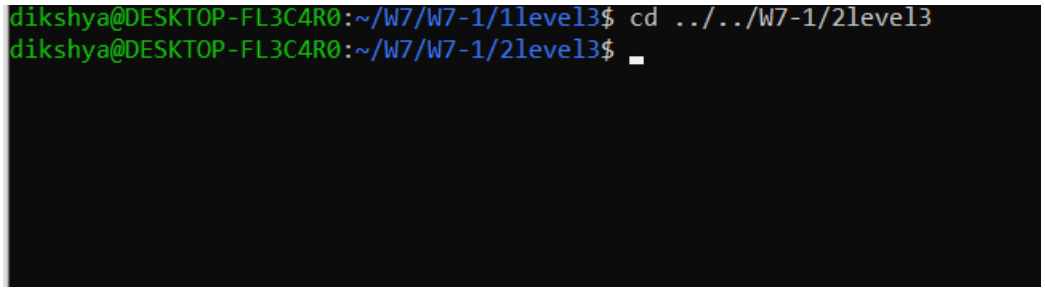



*Figure 3: Changing 1level3 directory to 2level directory*

2level3 directory was changed to 4level3 directory.

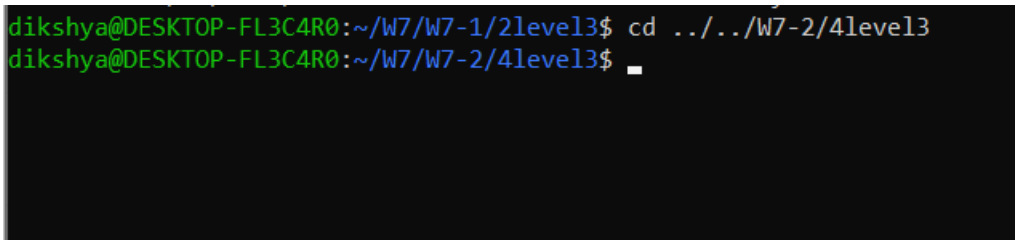



*Figure 4: Changing 2level3 directory to 4level3 directory*

4level3 directory was changed to W7 directory.

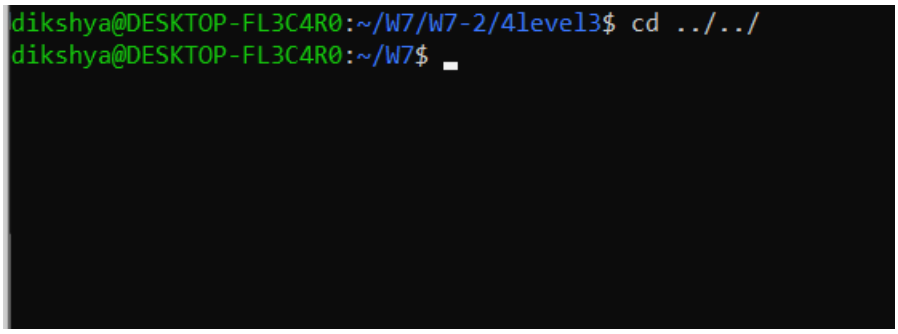



*Figure 5:Changing 4level3 directory to W7 directory.*

## 2.3. Step 3

W7 directory was changed to 1level3 directory and file named “text1” was created.

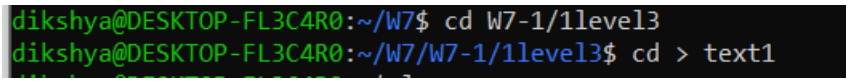



*Figure 6: Creating a file in 1level3 directory.*

Tree command was used to show the directory and its content in the form of tree.

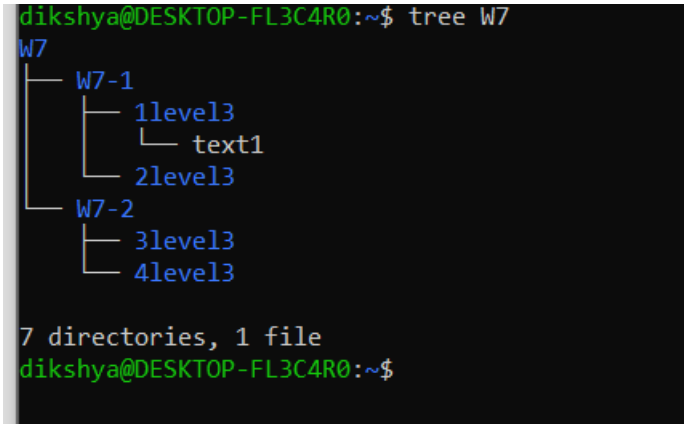



*Figure 7: Tree command to view the directory and subdirectory and files inside it.*

## 2.4. Step 4

Text file from directory 1level3 was copied to 1level3 directory itself but by renaming it to file1.

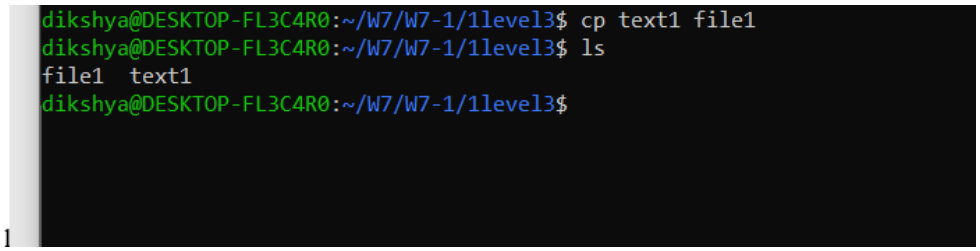



*Figure 8: Copying file from 1level3 directory to 1level3 directory by renaming it.*

Then, the file1 was copied to 2level3 directory.

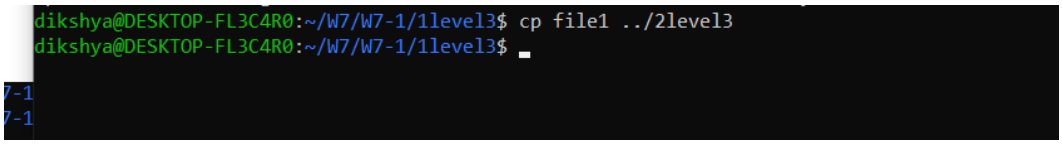



*Figure 9: Copying file to 2level3 directory.*

Similarly, it was also copied to 3level3 directory.


*Figure 10: Copying file to 3level3 directory.*

## 2.5. Step 5

Text file “file1” from 1level3 directory was again moved to 4level3 directory.

```
file1  text1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1/1level3$ mv file1 ../../W7-2/4level3
```

*Figure 11: moving file from 1level3 to 4level3 directory.*

Tree Command to show the directory and the files.

```
dikshya@DESKTOP-FL3C4R0:~$ tree W7
W7
├── W7-1
│   ├── 1level3
│   │   └── text1
│   └── 2level3
│       └── file1
└── W7-2
    ├── 3level3
    │   └── file1
    └── 4level3
        └── file1

7 directories, 4 files
dikshya@DESKTOP-FL3C4R0:~$
```

*Figure 12: Tree Command*

## 2.6. Step 6

Contents was printed using “echo” command and “printf” command.

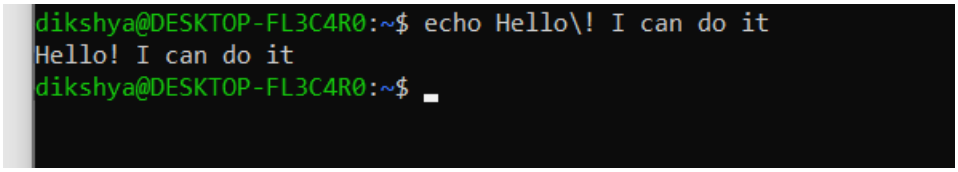



*Figure 13: echo command for printing provided data*

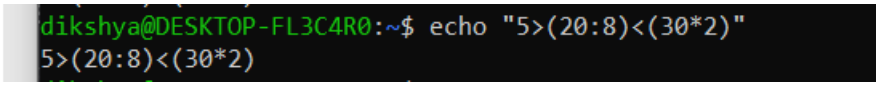



*Figure 14: echo command*

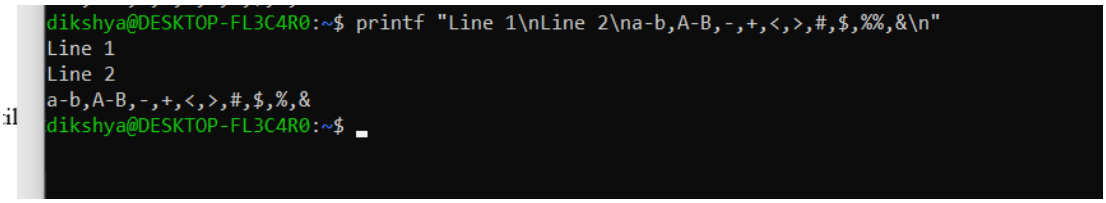
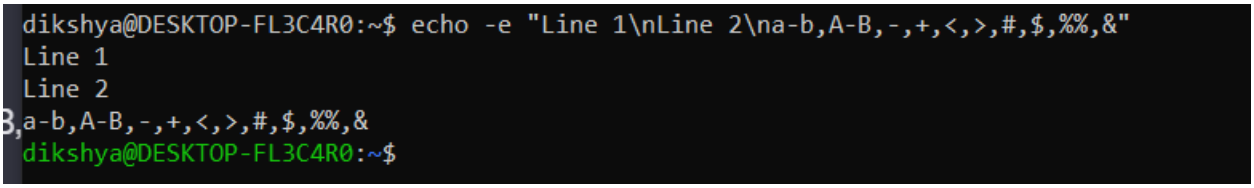



*Figure 15: printf command to print data*



## 2.7. Step 7

"ls" command was tested with and without options in home directory, W7 directory, W7-1 directory and 1level3 directory.

Where,

ls – listed the contents of particular directory without any additional details.

ls -a – listed all files including hidden files.

ls -d – listed information about particular directory.

ls -g – displayed group ownership.

ls -i – displayed inode number of directory.

ls -R – displayed the contents of all subdirectories within particular directory.

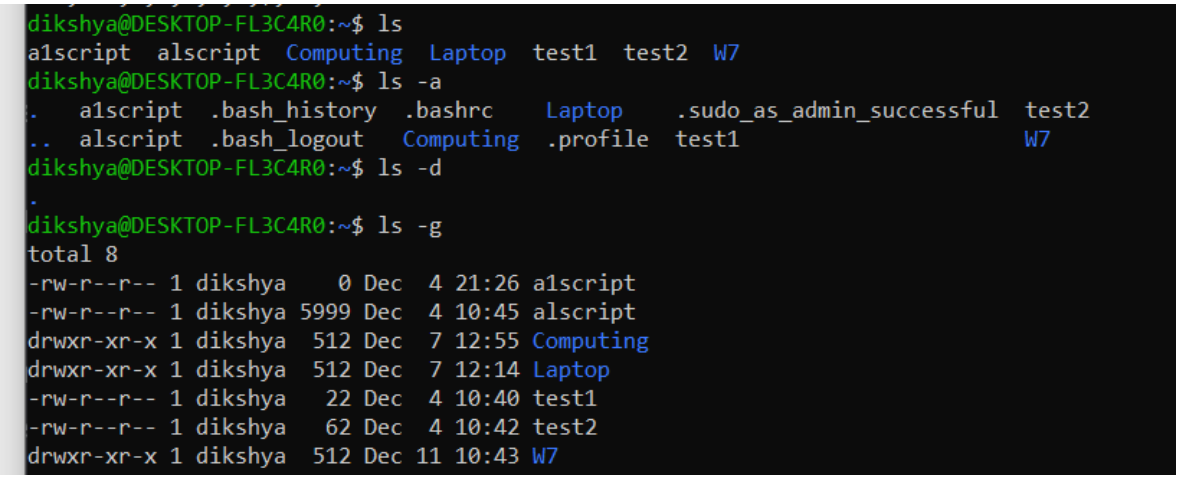



*Figure 16: ls command with and without it's options.*

```
dikshya@DESKTOP-FL3C4R0:~$ ls -i
 1407374883638150 a1script  14918173765733151 Computing   2533274790566397 test1   3940649674032740 W7
16888498602648731 alscript   4222124650743360 Laptop      4222124650933898 test2
dikshya@DESKTOP-FL3C4R0:~$ ls -R
.:
a1script  alscript  Computing  Laptop  test1  test2  W7

./Computing:
C1  C2  C3

./Computing/C1:

./Computing/C2:

./Computing/C3:

./Laptop:
Dell  HP

./Laptop/Dell:
File1  File2

./Laptop/Dell/File1:

./Laptop/Dell/File2:

./Laptop/HP:

./W7:
W7-1  W7-2

./W7/W7-1:
1level3  2level3

./W7/W7-1/1level3:
text1

./W7/W7-1/2level3:
file1

./W7/W7-2:
3level3  4level3

./W7/W7-2/3level3:
file1

./W7/W7-2/4level3:
file1
dikshya@DESKTOP-FL3C4R0:~$
```

*Figure 17: ls command with it's options.*

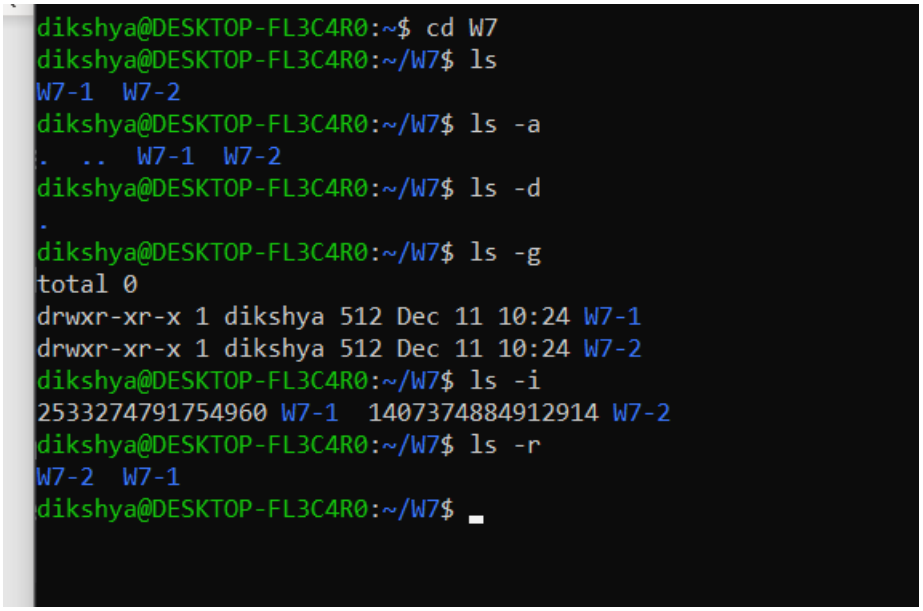



*Figure 18: ls command with and without it's option on W7 directory.*

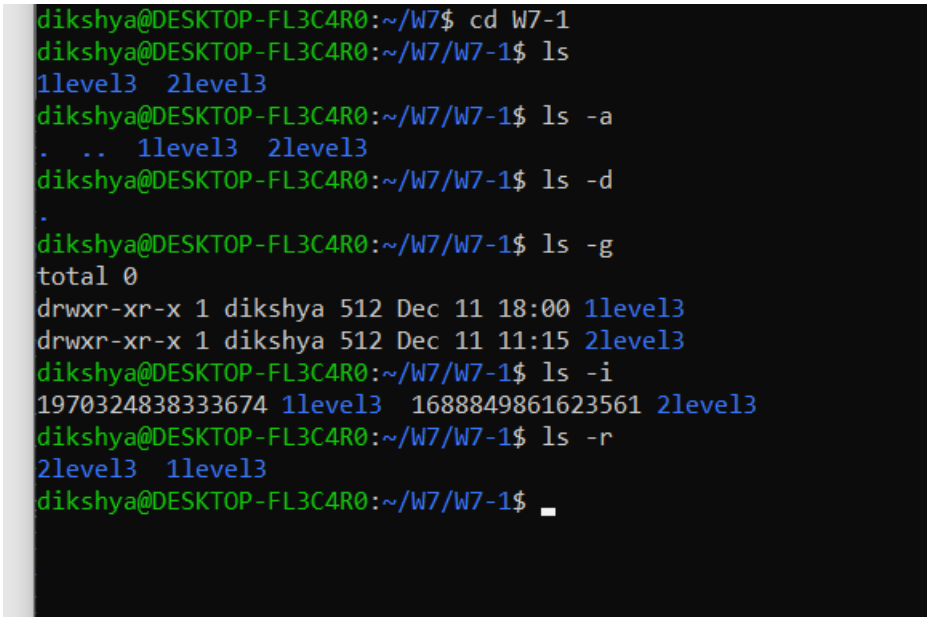



*Figure 19: ls command with and without it's option on W7-1 directory.*

## 2.8. Step 8

Following that, directory was changed to W7 directory and the directory “W7-2” was removed including files inside it using rm command.

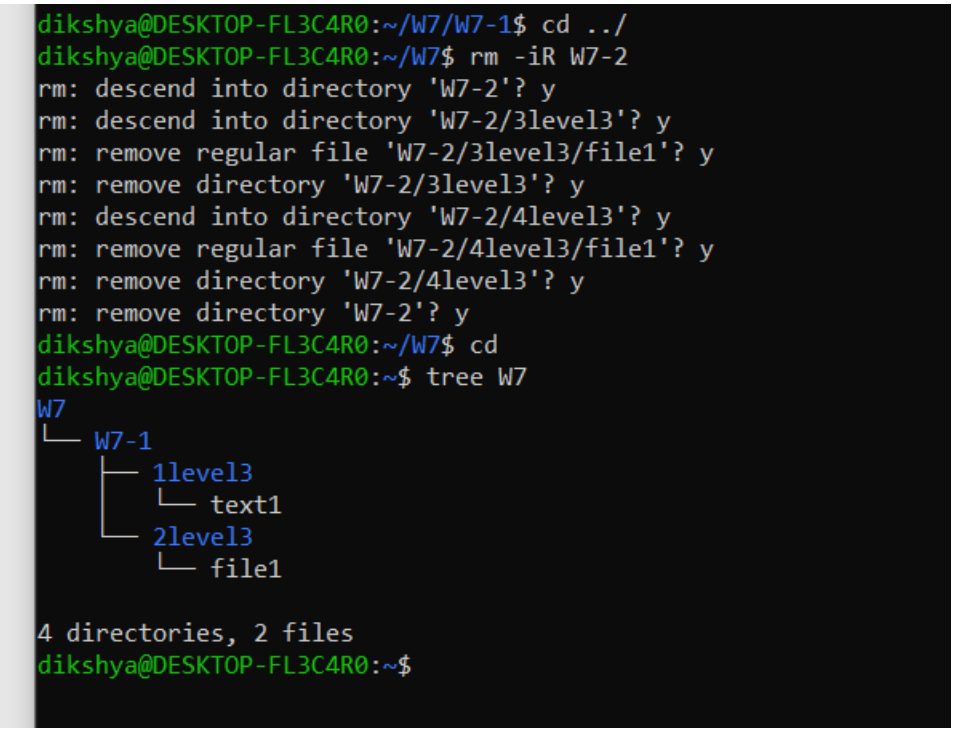



*Figure 20: Removing directory and subdirectory.*

## 2.9. Step 9

Likewise, directory was changed to W7-1 and access permissions was displayed.

Similarly, access permissions for 1level3 and text1 was also displayed.

Then, all access permissions for file text1 was removed. After that, reading permission was checked using cat command which didn't allow user to even read the file.

```
dikshya@DESKTOP-FL3C4R0:~$ cd W7/W7-1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ cd
dikshya@DESKTOP-FL3C4R0:~$ cd W7/W7-1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ ls -l 1level3
total 0
-rw-r--r-- 1 dikshya dikshya 1 Dec 11 11:09 text1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ ls -l 1level3/
total 0
-rw-r--r-- 1 dikshya dikshya 1 Dec 11 11:09 text1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ chmod -rw 1level3/text1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ ls -l 1level3/
total 0
---------- 1 dikshya dikshya 1 Dec 11 11:09 text1
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ cat 1level3/file1
cat: 1level3/file1: No such file or directory
dikshya@DESKTOP-FL3C4R0:~/W7/W7-1$ cat 1level3/text1
cat: 1level3/text1: Permission denied
```

*Figure 21: Manipulating Access Permissions on file.*

Then, for user, read and write permission was added and displayed.

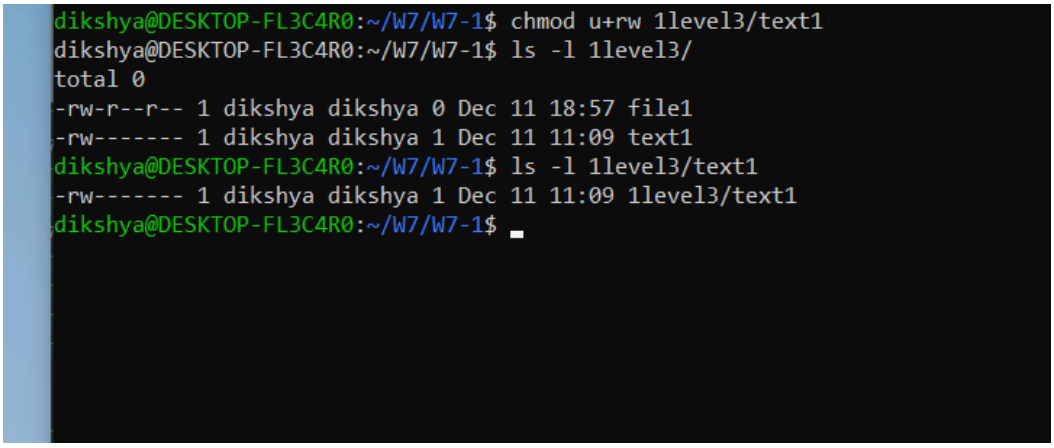



*Figure 22: Manipulating access permissions.*

Then, read and write permission was checked which in fact allowed to write and read the file.

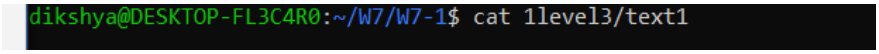



*Figure 23:cat command to check the read permission.*

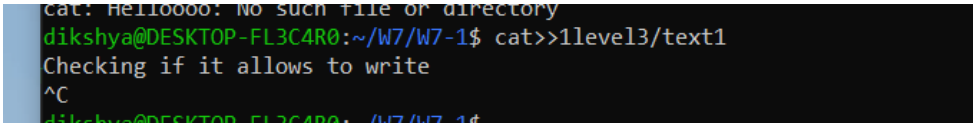



*Figure 24: checking write permissions.*

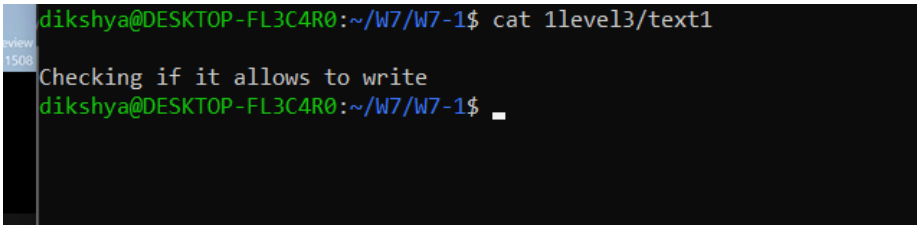



*Figure 25: Displaying content.*

## 2.10. Step 10

Access Permission for directory 1level3 was displayed. And all the access permissions for 1level3 was removed and then displayed. Then, it was tried to read, execute and put some content inside it but permission was denied because of removing the permission earlier.

And then, read write and executing permission was added.

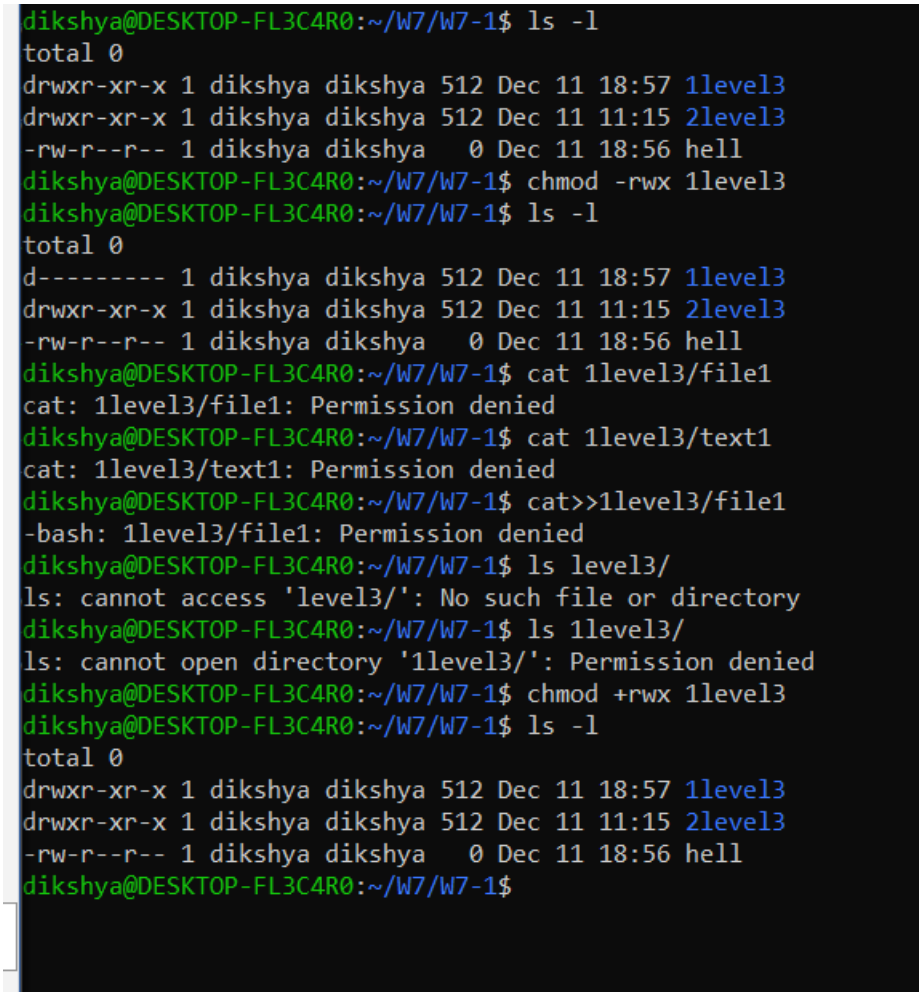



*Figure 26: Manipulating access permission on 1level3 directory.*

After successfully adding permissions, access permissions were displayed in 1level3 directory. Similarly, it was tried to read, execute, and write into the file which in fact allowed the permissions.

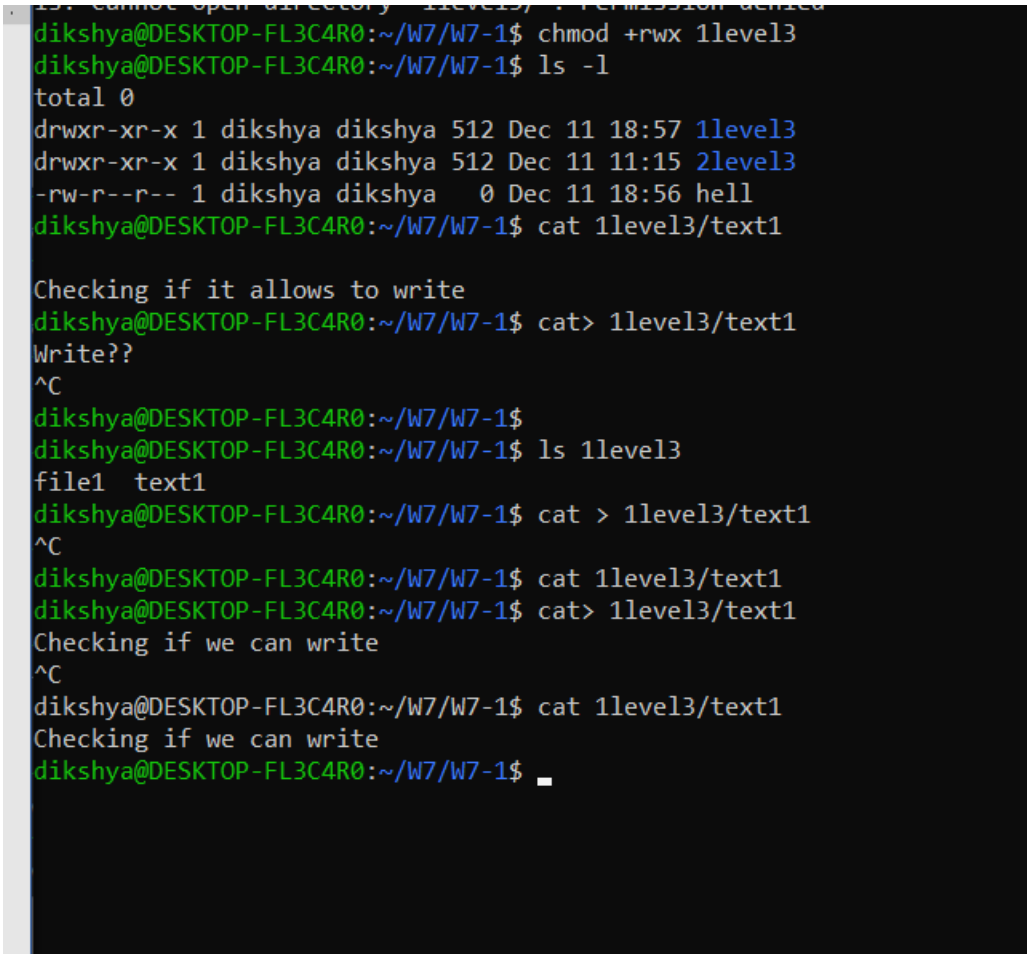



*Figure 27: Adding and checking access permissions.*