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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.

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Objective:

The goal is to understand and practice basic Linux shell commands that enable you to view information, create new files, and organize things. This includes simple tasks such as looking at information about your system, creating new files, and moving, copying, or deleting files to manage them more effectively. It's all about mastering the use of the Linux terminal to perform these simple actions.

1. Task and Observation:

1.1. Creating Directory

Command used:

```
dbn@DESKTOP-EPT06T2:~$ mkdir -p W7/{W7-1/{1LEVEL3,2LEVEL3},W7-2/{3LEVEL3,4LE VEL3}}
dbn@DESKTOP-EPT06T2:~$ TREE W7
-bash: TREE: command not found
dbn@DESKTOP-EPT06T2:~$ tree W7
W7

W7-1

LEVEL3

2LEVEL3

4LEVEL3

4LEVEL3
```

Figure 1 – Directories are created

Observation: all new directories have been created.

1.2. Changing directory

Commands used:

```
dbn@DESKTOP-EPT06T2:~$ cd W7/W7-1/1level3/
-bash: cd: W7/W7-1/1level3/: No such file or directory
dbn@DESKTOP-EPT06T2:~$ cd W7/W7-1/1LEVEL3/
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ cd ../../W7-2/4LEVEL3/
```

Figure 2 – Changing directory using relative pathname

• **Observation:** Directory has been changed using relative pathname.

1.3. Changing and creating a text file

Command used:

Figure 3 - Creating new file.

Observation: Changing the directory and creating a text file by cat.

1.4. Copying text file and changing its name

Command Used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ cp file file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ ls
file file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ cp file ../2level3/
cp: cannot create regular file '../2level3/': Not a directory
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ cp file ../2LEVEL3/
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ ls ../2LEVEL3/
file
```

Figure 4 - Copying and changing file name

• **Observation:** Show how to copy text files and change its name.

1.5. Moving the file

Commands used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ mv file ../../W7-2/4LEVEL3/
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ ls ../../W7-2/4LEVEL3/
file
```

Figure 5 – Moving the file and displaying it

 Observations: This helps to see how to move the file. Also, its location can be determined

1.6. Printing in echo

Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ echo -e "This is me\nHello"
This is me
Hello
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ |
```

Figure 6 - Printing using echo.

• Observation: Printing by breaking line using echo.

1.7. Giving Is command in home directory

Command used:

Figure 7 - Showing output by using Is command.

- Observation: Output can be seen using Is command.
- 1.8. Changing and doing the following task.
- 1.8.1. Displaying access permissions for file
- Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1/1LEVEL3$ cd ..
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l 1LEVEL3/
total 4
-rw-r--- 1 dbn dbn 17 Dec 16 13:35 file1
```

Figure 8 – Display access permissions

- **Observation**: Access permissions are displayed for the file.
- 1.8.2. Removing access permission and trying to read and write.
- Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ chmod -rw 1LEVEL3/file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l 1LEVEL3/
total 4
------ 1 dbn dbn 17 Dec 16 13:35 file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat 1LEVEL3/file1
cat: 1LEVEL3/file1: Permission denied
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat>>1LEVEL3/file1
-bash: 1LEVEL3/file1: Permission denied
```

Figure 9 – Removing access permission.

 Observation: This helps to show about removing access permission and try to read and write using utility.

1.8.3. Adding read and write access permissions

Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ chmod u+rw 1LEVEL3/file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l 1LEVEL3/
total 4
-rw----- 1 dbn dbn 17 Dec 16 13:35 file1
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat 1LEVEL3/file1
This is my file.
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat>>1LEVEL3/file1
This is my second line.
^Z
[3]+ Stopped cat >> 1LEVEL3/file1
```

Figure 10 - Adding read and write access permissions

• **Observation:** Adding read and writes access permissions.

1.9. Other tasks on directory

1.9.1. Displaying and removing access permissions

• Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l
total 8
drwxr-xr-x 2 dbn dbn 4096 Dec 17 21:05 1LEVEL3
drwxr-xr-x 2 dbn dbn 4096 Dec 17 21:05 2LEVEL3
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ chmod -rwx 1LEVEL3/
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l
total 8
d------ 2 dbn dbn 4096 Dec 17 21:05 1LEVEL3
drwxr-xr-x 2 dbn dbn 4096 Dec 17 21:05 2LEVEL3
```

Figure 11 - Displaying and removing access permissions

Observation: Showing how to display and remove access permissions

1.9.2. Trying to read, put a file and searching.

Command Used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat 1LEVEL3/file1
cat: 1LEVEL3/file1: Permission denied
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ cat>>1LEVEL3/file1
-bash: 1LEVEL3/file1: Permission denied
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls 1LEVEL3/
ls: cannot open directory '1LEVEL3/': Permission denied
```

Figure 12 - Trying to read, put and search the file

 Observation: permission is denied after trying to read, put and search the file.

1.9.3. Adding read, write and execute access permissions

Command used:

```
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ chmod u+rwx 1LEVEL3/
dbn@DESKTOP-EPT06T2:~/W7/W7-1$ ls -l
total 8
drwx----- 2 dbn dbn 4096 Dec 17 21:05 1LEVEL3
drwxr-xr-x 2 dbn dbn 4096 Dec 17 21:05 2LEVEL3
```

Figure 13 - Adding read, write and execute access permissions

 Observation: We can see how to add read, write and execute access permissions

1.9.4. Trying to read, put and search the file

• Command Used:

Figure 14 - read, put and search the file

 Observation: We can see how we can read a file, put a file using utility and search the file using commands.

Conclusion:

This logbook is helpful because it taught us Linux and its commands. How to search for information, organize files, and even merge the contents of different files. It also helped in learning more about directories and files in Linux.