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**Vellore Institute of Technology**  
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Bonafide Record of Lab work

Submitted

as a partial fulfillment of the course

**ECE5030 SCRIPTING LANGUAGE**

in

(M.Tech VLSI Design)

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**Assignment - 3**

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**August 2020**

## OBJECTIVE

### [Shell programming]

1. Display current date in mm-dd-yy and dd-mm-yy format
2. Create a directory named proj and set the directory with sticky bit  
Linux Sticky Bit Concept Explained with Examples

Think of a scenario where you create a Linux directory that can be used by all the users of the Linux system for creating files. Users can create, delete or rename files according to their convenience in this directory. For all those who think that why would such a directory be created? There exists, for example, /tmp directory in the Linux system that can be used by different Linux users to create temporary files.

Now, what if an user accidentally or deliberately deletes (or rename) a file created by some other user in this directory?

Well, to avoid these kind of issues, the concept of sticky bit is used.

A Sticky bit is a permission bit that is set on a file or a directory that lets only the owner of the file/directory or the root user to delete or rename the file. No other user is given privileges to delete the file created by some other user.

3. a). Using cat command, create an empty file called myfile and verify using ls command that the created file is zero-byte size.  
b). Now append some lines to the file and display the contents of the file  
c). Append some more lines to the file using >> redirection and verify that the lines are appended.  
d). Now overwrite the file with some other lines and verify that the file is overwritten
4. In how many different ways file1 can be copied to file2. Check if your solutions indeed work
5. Use ls command to list only directories along with other attributes including inode number
6. Display the list of user names who have currently logged in
7. Create myproj directory in the login directory (home directory) and create src/include directory within myproject using a single command.
8. How cp and mv commands behave when a file with target name already exists.
9. list all the files created today
10. list all files which are larger than 1000 bytes
11. List the directory entries (in long format) as per the following criteria  
a). In ascending order of file size  
b). in sorted order of file type
12. List the number of occurrences of particular file in your current directory
13. Paste two or three files in current working directory vertically with the delimiter '|'
14. List the last five lines of the particular file in current working directory
15. Create a file color.txt in current directory which has to have the below content  
Apple is Red in color  
Mango is YELLOW in color  
Orange is OranGE in color
16. In task 15, All colors mentioned (Red, YELLOW, OranGE) replace with lower case letters and rewrite color.txt.

# RESULT

```
bhupendra@bhupendra-VirtualBox: ~/Documents/Test
bhupendra@bhupendra-VirtualBox:~/Documents/Test$ bash Assignment3.sh
*****
1. Display current date in mm-dd-yy and dd-mm-yy format
08-21-20
21-08-20
*****
2. Create a directory named proj and set the directory with sticky bit
total 164
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 18:09 Folder2
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 22:40 Folder3
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 13 23:07 test3.txt
-rw-rw-r-- 1 bhupendra bhupendra 47 Aug 15 21:23 data
-rw-rw-r-- 1 bhupendra bhupendra 45 Aug 15 22:14 state
-rw-rw-r-- 1 bhupendra bhupendra 42 Aug 15 22:15 capita
-rw-rw-r-- 1 bhupendra bhupendra 10 Aug 15 22:18 number
-rw-rw-r-- 1 bhupendra bhupendra 44 Aug 16 15:08 cars
-rw-rw-r-- 1 bhupendra bhupendra 40 Aug 16 15:08 cars1
-rw-rw-r-- 1 bhupendra bhupendra 78101 Aug 16 15:37 top.log
-rw-rw-r-- 1 bhupendra bhupendra 132 Aug 16 15:40 ch-error.log
-rw-rw-r-- 1 bhupendra bhupendra 787 Aug 20 23:33 Assignment3
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 21 10:54 line
-rw-rw-r-- 1 bhupendra bhupendra 9 Aug 21 11:10 file
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 11:22 test
-rw-rw-r-- 1 bhupendra bhupendra 1323 Aug 21 11:57 sortedorder
-rw-rw-r-- 1 bhupendra bhupendra 1270 Aug 21 12:18 sorted
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:18 test.txt
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:18 color.txt
-rw-rw-r-- 1 bhupendra bhupendra 6991 Aug 21 12:18 Assignment3.sh
drwxrwxr-t 3 bhupendra bhupendra 4096 Aug 21 12:19 proj
*****
3.
-----
a) Using cat command, create an empty file called myfile and verify using ls command that the created file is zero-byte size.
a) Using cat command, create an empty file called myfile and verify using ls command that the created file is zero-byte size.
total 4
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 21 12:19 check
-rw-rw-r-- 1 bhupendra bhupendra 0 Aug 21 12:19 myfile
-----
b) Now append some lines to the file and display the contents of the file.
Comm'on, Enter something
Here you go
Yeah, You successfully appended the first line
Look what you have entered, Here you go
Here you go
-----
c) Append some more lines to the file using >> redirection and verify that the lines are appended.
Okk, here is another line
Yeahh, You again appended one more line
Here you go
Okk, here is another line
-----
d) Now overwrite the file with some other lines and verify that the file is overwritten.
Let's see, if you can overwrite it
Oppps, you have overwritten all the file with:
Let's see, if you can overwrite it
*****
4. In how many different ways file1 can be copied to file2. Check if your solutions indeed work.
Through copy
Content of file1 and file2
I'm new file
I'm new file
Through cat
content of file 2 and file3
I'm new file
I'm new file
*****
5. Use ls command to list only directories along with other attributes including inode number
532185 check/
*****
6. Display the list of user names who have currently logged in
12:20:30 up 5:49, 1 user, load average: 0.11, 0.12, 0.11
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
bhupendr :0 :0 Thu23 ?xdm? 11:04 0.02s /usr/lib/gdm3/gdm-x-session --run-script env GNOME_SHELL_SESSION_MODE=ubuntu
*****
7. Create myproj directory in the login directory(home directory) and create src/include directory within myproject using a single command.
Checking for include directory in myproj/src
/home/bhupendra/myproj/src
include
*****
8. How cp and mv commands behave when a file with target name already exists.
Checking copy command
cp: 'cars' and 'cars' are the same file
Checking move command
mv: 'cars' and 'cars' are the same file
cp copies files to a target named by the last argument on its command line. If the target is an existing file, cp overwrites it, if it does not exist cp will create it. If the target file already exists and does not have write permission, cp denies access and continue with next copy.
*****
```

```

*****
9. List all the files created today.
.
./color.txt
./sortedorder
./proj
./proj/file2
./proj/file1
./proj/check
./proj/file3
./proj/myfile
./Assignment3
./sorted
./line
./Assignment3.sh
./test
./file
./test.txt
*****
10. List all files which are larger than 1000 bytes.
.
./Folder2
./sortedorder
./proj
./proj/check
./sorted
./top.log
./Folder3
./Assignment3.sh
*****
11. List the directory entries (in long format) as per the following criteria.
-----
a) In ascending order of file size
total 172K
-rw-rw-r-- 1 bhupendra bhupendra 9 Aug 21 11:10 file
-rw-rw-r-- 1 bhupendra bhupendra 10 Aug 15 22:18 number
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 13 23:07 test3.txt
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 21 10:54 line
-rw-rw-r-- 1 bhupendra bhupendra 40 Aug 16 15:08 cars1
-rw-rw-r-- 1 bhupendra bhupendra 42 Aug 15 22:15 capita
-rw-rw-r-- 1 bhupendra bhupendra 44 Aug 16 15:08 cars
-rw-rw-r-- 1 bhupendra bhupendra 45 Aug 15 22:14 state
-rw-rw-r-- 1 bhupendra bhupendra 47 Aug 15 21:23 data
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:18 test.txt
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 11:22 test
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:18 color.txt
-rw-rw-r-- 1 bhupendra bhupendra 132 Aug 16 15:40 ch-error.log
-rw-rw-r-- 1 bhupendra bhupendra 787 Aug 20 23:33 Assignment3
-rw-rw-r-- 1 bhupendra bhupendra 1.3K Aug 21 12:18 sorted
-rw-rw-r-- 1 bhupendra bhupendra 1.3K Aug 21 11:57 sortedorder
drwxrwxr-t 3 bhupendra bhupendra 4.0K Aug 21 12:20 proj
drwxrwxr-x 2 bhupendra bhupendra 4.0K Aug 13 22:40 Folder3
drwxrwxr-x 2 bhupendra bhupendra 4.0K Aug 13 18:09 Folder2
drwxr-xr-x 3 bhupendra bhupendra 4.0K Aug 20 22:46 ..
drwxrwxr-x 5 bhupendra bhupendra 4.0K Aug 21 12:19 .
-rw-rw-r-- 1 bhupendra bhupendra 6.9K Aug 21 12:18 Assignment3.sh
-rw-rw-r-- 1 bhupendra bhupendra 77K Aug 16 15:37 top.log
-----
b) In sorted order of file type
drwxrwxr-t 3 bhupendra bhupendra 4096 Aug 21 12:18 proj
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 18:09 Folder2
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 22:40 Folder3
-rw-rw-r-- 1 bhupendra bhupendra 0 Aug 21 12:18 sorted
-rw-rw-r-- 1 bhupendra bhupendra 10 Aug 15 22:18 number
-rw-rw-r-- 1 bhupendra bhupendra 1323 Aug 21 11:57 sortedorder
-rw-rw-r-- 1 bhupendra bhupendra 132 Aug 16 15:40 ch-error.log
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 13 23:07 test3.txt
-rw-rw-r-- 1 bhupendra bhupendra 16 Aug 21 10:54 line
-rw-rw-r-- 1 bhupendra bhupendra 40 Aug 16 15:08 cars1
-rw-rw-r-- 1 bhupendra bhupendra 42 Aug 15 22:15 capita
-rw-rw-r-- 1 bhupendra bhupendra 44 Aug 16 15:08 cars
-rw-rw-r-- 1 bhupendra bhupendra 45 Aug 15 22:14 state
-rw-rw-r-- 1 bhupendra bhupendra 47 Aug 15 21:23 data
-rw-rw-r-- 1 bhupendra bhupendra 6985 Aug 21 12:16 Assignment3.sh
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 11:22 test
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:06 color.txt
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:06 test.txt
-rw-rw-r-- 1 bhupendra bhupendra 78101 Aug 16 15:37 top.log
-rw-rw-r-- 1 bhupendra bhupendra 787 Aug 20 23:33 Assignment3
-rw-rw-r-- 1 bhupendra bhupendra 9 Aug 21 11:10 file
total 160
total 160
-rw-rw-r-- 1 bhupendra bhupendra 787 Aug 20 23:33 Assignment3
-rw-rw-r-- 1 bhupendra bhupendra 6991 Aug 21 12:18 Assignment3.sh
-rw-rw-r-- 1 bhupendra bhupendra 42 Aug 15 22:15 capita
-rw-rw-r-- 1 bhupendra bhupendra 44 Aug 16 15:08 cars
-rw-rw-r-- 1 bhupendra bhupendra 40 Aug 16 15:08 cars1
-rw-rw-r-- 1 bhupendra bhupendra 132 Aug 16 15:40 ch-error.log
-rw-rw-r-- 1 bhupendra bhupendra 73 Aug 21 12:18 color.txt
-rw-rw-r-- 1 bhupendra bhupendra 47 Aug 15 21:23 data
-rw-rw-r-- 1 bhupendra bhupendra 9 Aug 21 11:10 file

```

```

-rw-rw-r-- 1 bhupendra bhupendra    9 Aug 21 11:10 file
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 18:09 Folder2
drwxrwxr-x 2 bhupendra bhupendra 4096 Aug 13 22:40 Folder3
-rw-rw-r-- 1 bhupendra bhupendra   16 Aug 21 10:54 line
-rw-rw-r-- 1 bhupendra bhupendra   10 Aug 15 22:18 number
drwxrwxr-t 3 bhupendra bhupendra 4096 Aug 21 12:20 proj
-rw-rw-r-- 1 bhupendra bhupendra    0 Aug 21 12:20 sorted
-rw-rw-r-- 1 bhupendra bhupendra 1323 Aug 21 11:57 sortedorder
-rw-rw-r-- 1 bhupendra bhupendra   45 Aug 15 22:14 state
-rw-rw-r-- 1 bhupendra bhupendra   73 Aug 21 11:22 test
-rw-rw-r-- 1 bhupendra bhupendra   16 Aug 13 23:07 test3.txt
-rw-rw-r-- 1 bhupendra bhupendra   73 Aug 21 12:18 test.txt
-rw-rw-r-- 1 bhupendra bhupendra 78101 Aug 16 15:37 top.log
*****
12. List the number of occurrences of particular file in your current directory.
1
*****
13. Paste two or three files in current working directory vertically with the delimiter '|'.
1|Uttar Pradesh|Lucknow
2|Bihar|Bihar
3|Tamil Nadu|Chennai
4|Assam|Dishpur
5|Gujrat|Ghandinagar
*****
14. List the last five lines of the particular file in current working directory.
Uttar Pradesh
Bihar
Tamil Nadu
Assam
Gujrat
*****
*****
14. List the last five lines of the particular file in current working directory.
Uttar Pradesh
Bihar
Tamil Nadu
Assam
Gujrat
*****
15. Create a file color.txt in current directory which has to have the below content
    Apple is Red in color
    Mango is YELLOW in color
    Orange is OranGE in color
*****Displaying color.txt*****
Apple is Red in color
Mango is YELLOW in color
Orange is OranGE in color
*****
16. In task 15, All colors mentioned(Red, YELLOW, Orange) replace with lower case letters and rewrite color.txt.
apple is red in color
mango is yellow in color
orange is oranGe in color
*****
This is end of Assignment 3
Thankyou
*****

```