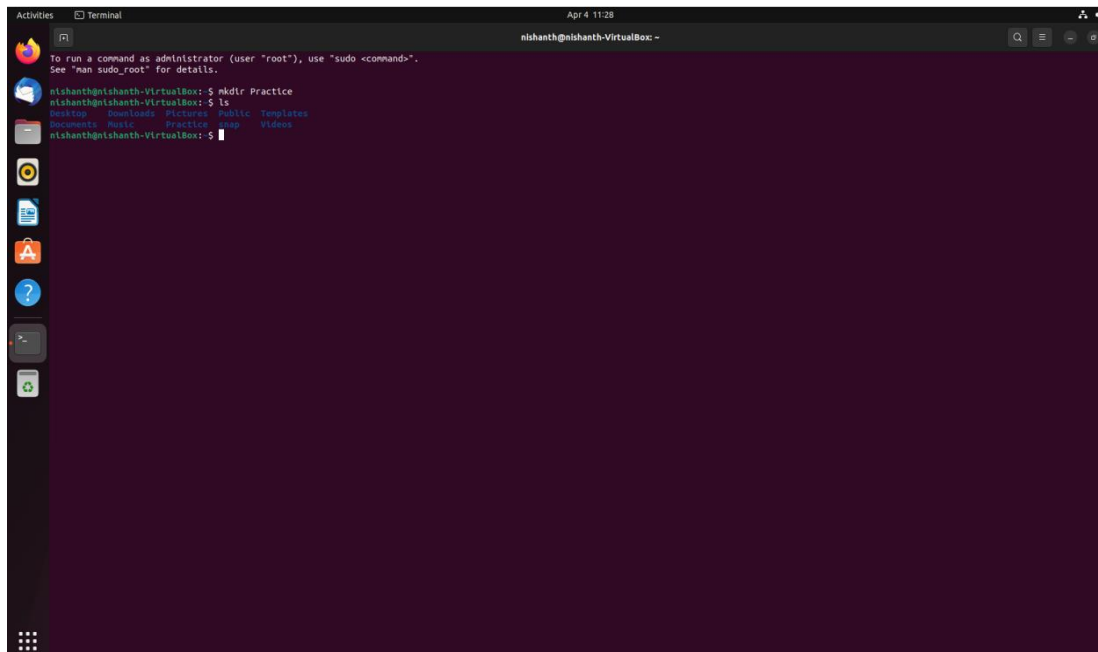


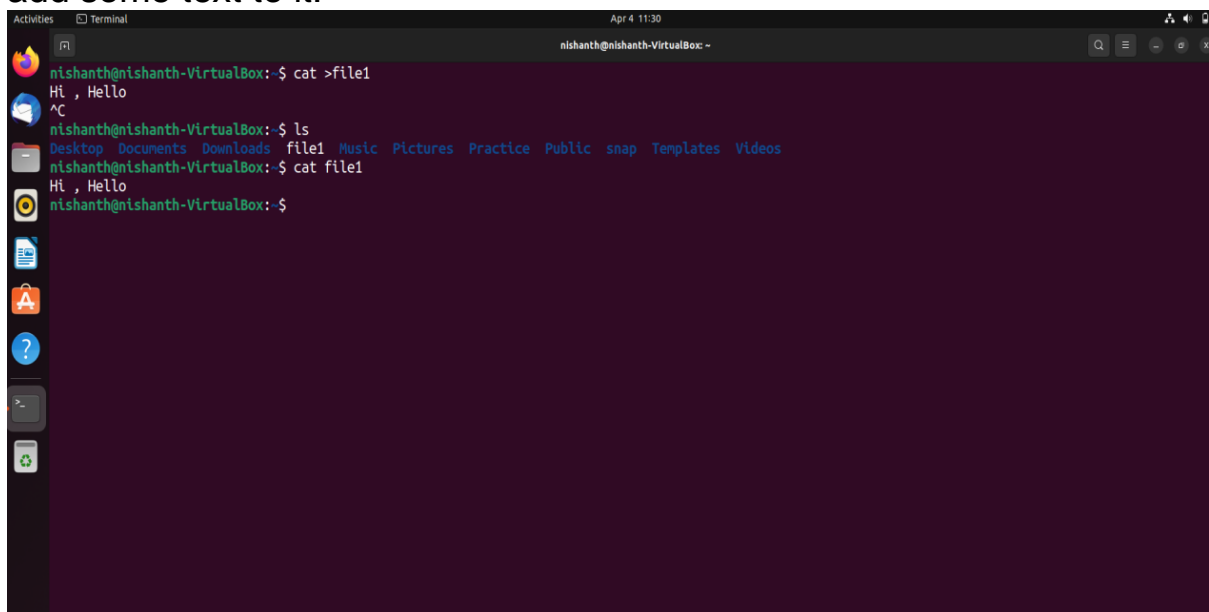
# Linux Assignment

1. Create a new directory called "practice" in your home directory.

A terminal window titled 'Terminal' with a dark purple background. The prompt is 'nishanth@nishanth-VirtualBox: ~'. The user enters 'mkdir Practice'. The prompt changes to 'nishanth@nishanth-VirtualBox: ~\$'. The user enters 'ls'. The output shows a list of directories: 'Desktop Downloads Pictures Public Templates Documents Music Practice snap Videos'. The prompt returns to 'nishanth@nishanth-VirtualBox: ~\$'.

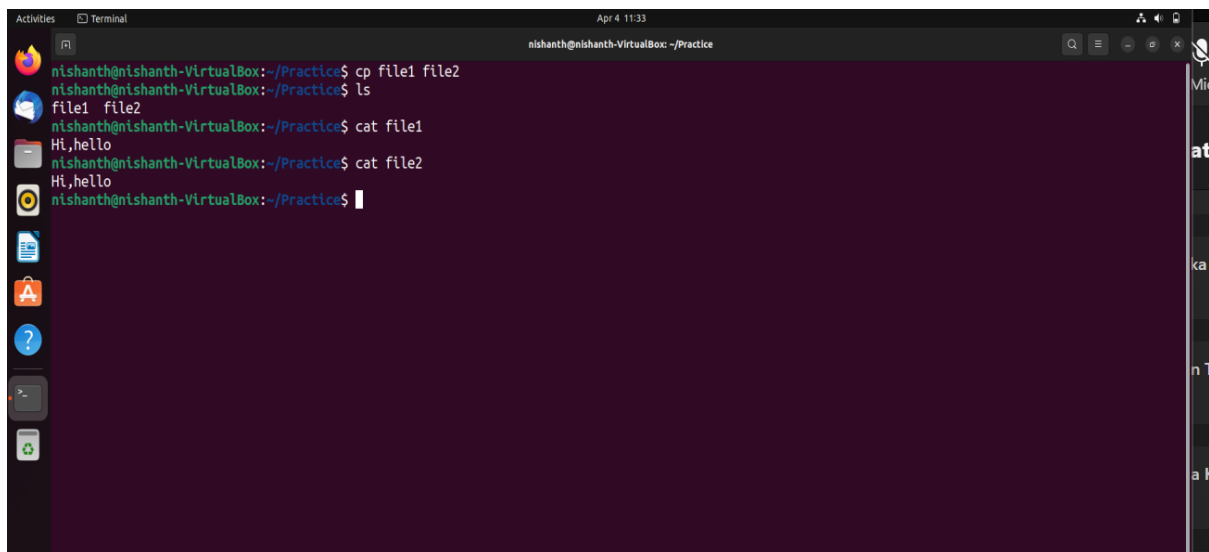
```
nishanth@nishanth-VirtualBox: ~$ mkdir Practice
nishanth@nishanth-VirtualBox: ~$ ls
Desktop  Downloads  Pictures   Public    Templates
Documents Music      Practice  snap      Videos
nishanth@nishanth-VirtualBox: ~$
```

2. Inside the "practice" directory, create a new file called "file1.txt" and add some text to it.

A terminal window titled 'Terminal' with a dark purple background. The prompt is 'nishanth@nishanth-VirtualBox: ~'. The user enters 'cat >file1'. The prompt changes to 'nishanth@nishanth-VirtualBox: ~\$'. The user enters 'Hi , Hello' followed by a carriage return '^C'. The prompt returns to 'nishanth@nishanth-VirtualBox: ~\$'. The user enters 'ls'. The output shows a list of directories and files: 'Desktop Documents Downloads file1 Music Pictures Practice Public snap Templates Videos'. The prompt returns to 'nishanth@nishanth-VirtualBox: ~\$'. The user enters 'cat file1'. The output shows 'Hi , Hello'. The prompt returns to 'nishanth@nishanth-VirtualBox: ~\$'.

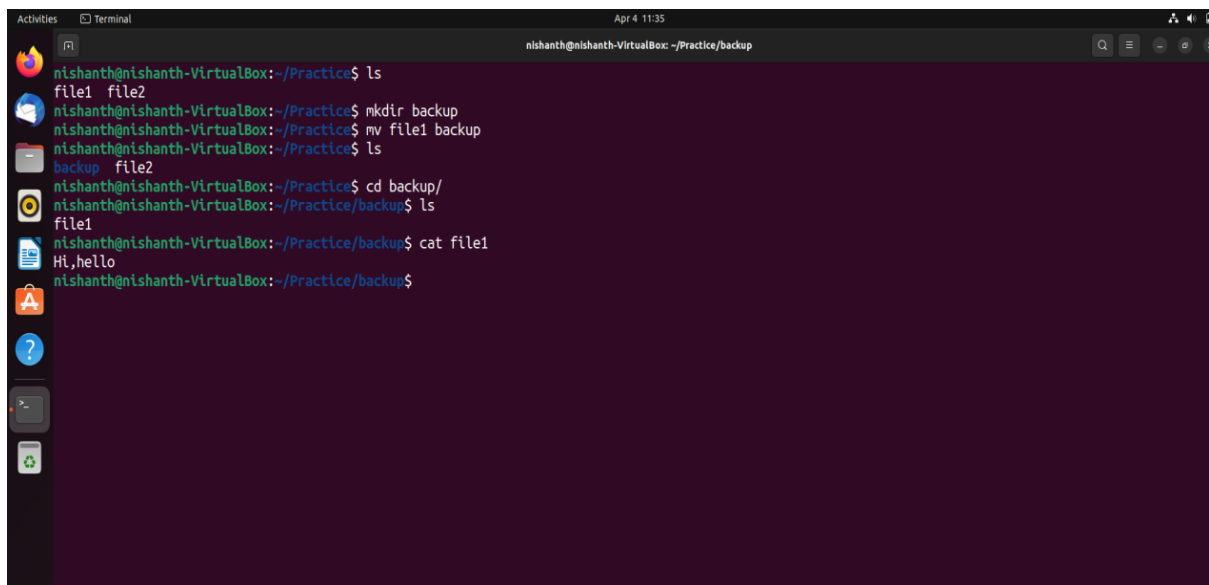
```
nishanth@nishanth-VirtualBox: ~$ cat >file1
Hi , Hello
^C
nishanth@nishanth-VirtualBox: ~$ ls
Desktop Documents Downloads file1 Music Pictures Practice Public snap Templates Videos
nishanth@nishanth-VirtualBox: ~$ cat file1
Hi , Hello
nishanth@nishanth-VirtualBox: ~$
```

3. Copy "file1.txt" to a new file called "file2.txt" in the same directory.

A terminal window titled 'Terminal' with a dark background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice'. The user enters 'cp file1 file2', then 'ls' showing 'file1 file2'. Then 'cat file1' and 'cat file2' both output 'Hi,hello'.

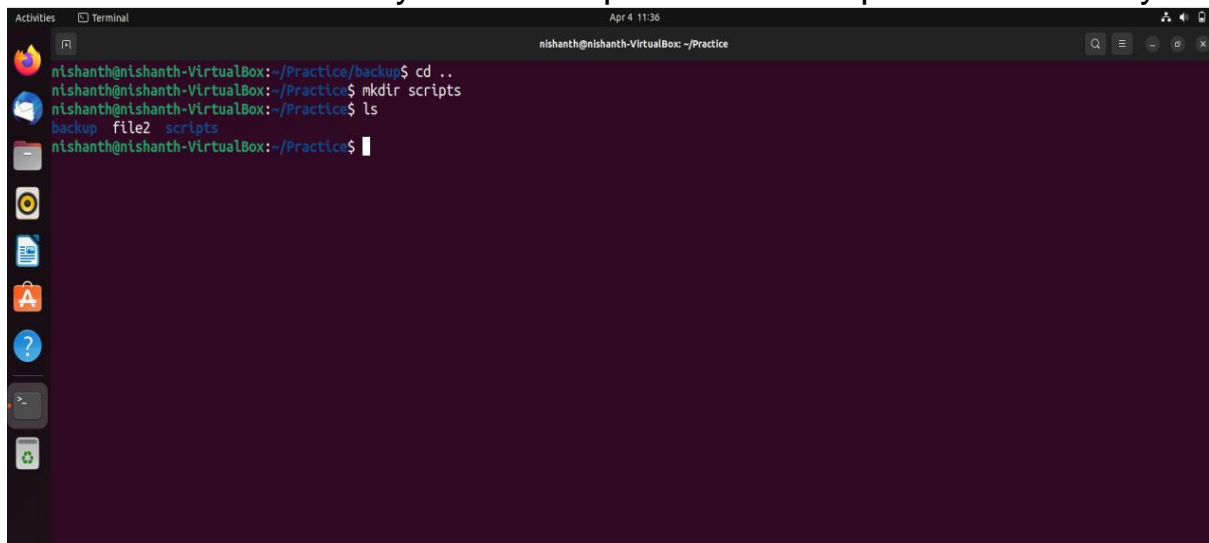
```
nishanth@nishanth-VirtualBox: ~/Practice
nishanth@nishanth-VirtualBox:~/Practice$ cp file1 file2
nishanth@nishanth-VirtualBox:~/Practice$ ls
file1  file2
nishanth@nishanth-VirtualBox:~/Practice$ cat file1
Hi,hello
nishanth@nishanth-VirtualBox:~/Practice$ cat file2
Hi,hello
nishanth@nishanth-VirtualBox:~/Practice$
```

4. Move "file2.txt" to a new directory called "backup" that is located inside the "practice" directory.

A terminal window titled 'Terminal' with a dark background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice/backup'. The user enters 'ls' showing 'file1 file2'. Then 'mkdir backup', 'mv file1 backup', and 'ls' showing 'backup file2'. Then 'cd backup/' and 'ls' showing 'file1'. Finally 'cat file1' outputs 'Hi,hello'.

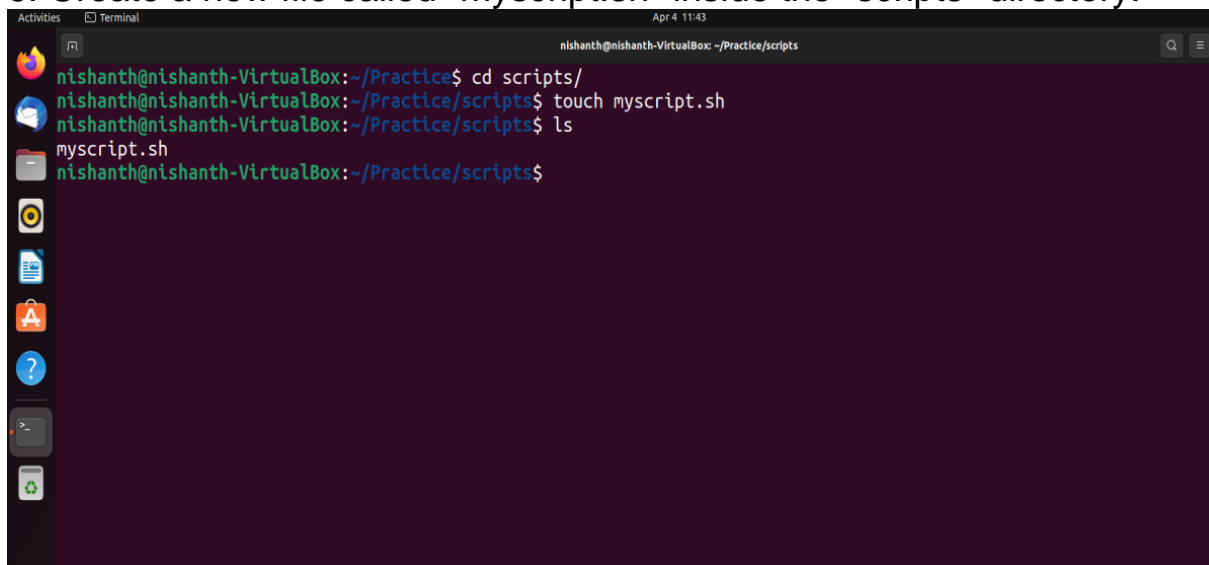
```
nishanth@nishanth-VirtualBox: ~/Practice/backup
nishanth@nishanth-VirtualBox:~/Practice$ ls
file1  file2
nishanth@nishanth-VirtualBox:~/Practice$ mkdir backup
nishanth@nishanth-VirtualBox:~/Practice$ mv file1 backup
nishanth@nishanth-VirtualBox:~/Practice$ ls
backup  file2
nishanth@nishanth-VirtualBox:~/Practice$ cd backup/
nishanth@nishanth-VirtualBox:~/Practice/backup$ ls
file1
nishanth@nishanth-VirtualBox:~/Practice/backup$ cat file1
Hi,hello
nishanth@nishanth-VirtualBox:~/Practice/backup$
```

5. Create a new directory called "scripts" inside the "practice" directory.

A terminal window titled 'Terminal' with a dark purple background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice'. The user enters 'cd ../' to move to the parent directory. Then they enter 'mkdir scripts' to create a new directory. Finally, they enter 'ls' to list the contents, which shows 'backup file2 scripts'.

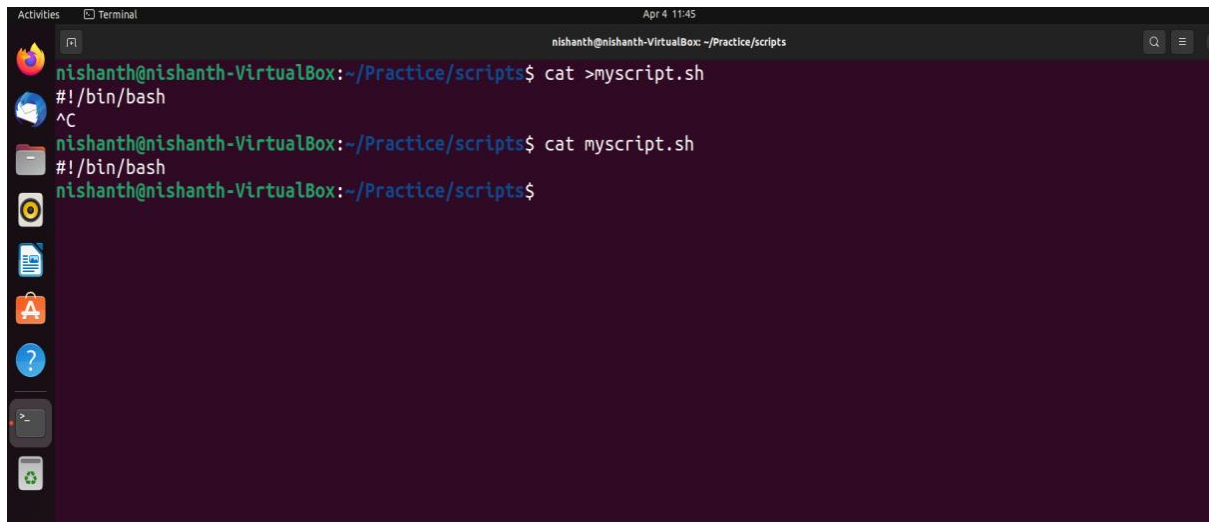
```
nishanth@nishanth-VirtualBox:~/Practice/backup$ cd ../
nishanth@nishanth-VirtualBox:~/Practice$ mkdir scripts
nishanth@nishanth-VirtualBox:~/Practice$ ls
backup  file2  scripts
nishanth@nishanth-VirtualBox:~/Practice$
```

6. Create a new file called "myscript.sh" inside the "scripts" directory.

A terminal window titled 'Terminal' with a dark purple background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice/scripts'. The user enters 'cd scripts/' to move into the scripts directory. Then they enter 'touch myscript.sh' to create a new file. Finally, they enter 'ls' to list the contents, which shows 'myscript.sh'.

```
nishanth@nishanth-VirtualBox:~/Practice$ cd scripts/
nishanth@nishanth-VirtualBox:~/Practice/scripts$ touch myscript.sh
nishanth@nishanth-VirtualBox:~/Practice/scripts$ ls
myscript.sh
nishanth@nishanth-VirtualBox:~/Practice/scripts$
```

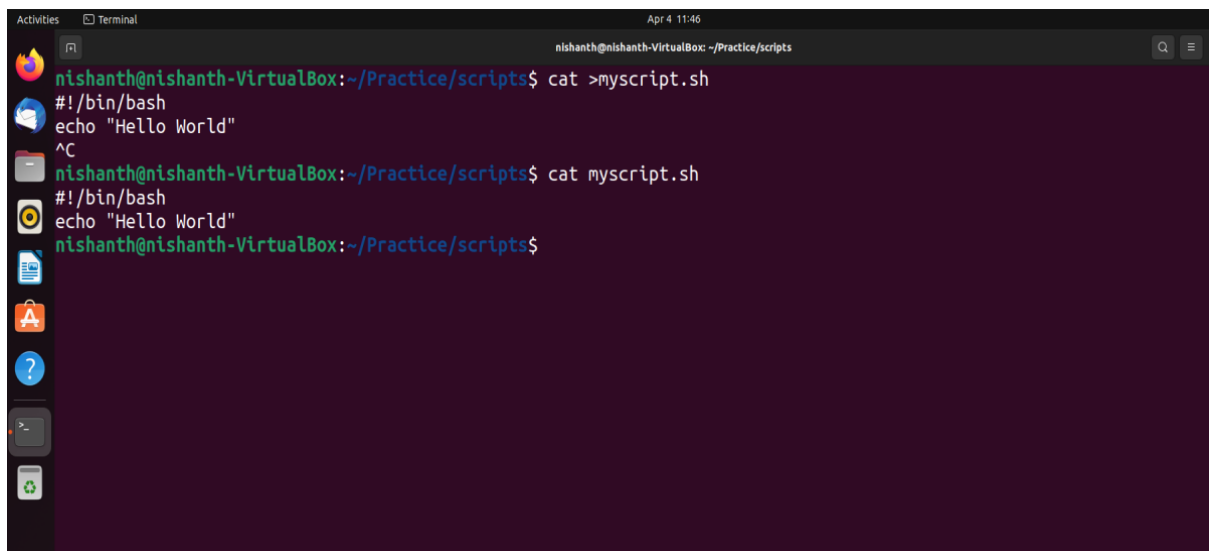
7. Add the following code to "myscript.sh":  
#!/bin/bash



A terminal window titled "Terminal" with the subtitle "nishanth@nishanth-VirtualBox: ~/Practice/scripts". The prompt is "nishanth@nishanth-VirtualBox:~/Practice/scripts\$". The user enters "cat >myscript.sh", followed by "#!/bin/bash" on a new line. They press Ctrl-C (^C), then enter "cat myscript.sh", which displays "#!/bin/bash". The prompt returns to "nishanth@nishanth-VirtualBox:~/Practice/scripts\$".

```
nishanth@nishanth-VirtualBox:~/Practice/scripts$ cat >myscript.sh
#!/bin/bash
^C
nishanth@nishanth-VirtualBox:~/Practice/scripts$ cat myscript.sh
#!/bin/bash
nishanth@nishanth-VirtualBox:~/Practice/scripts$
```

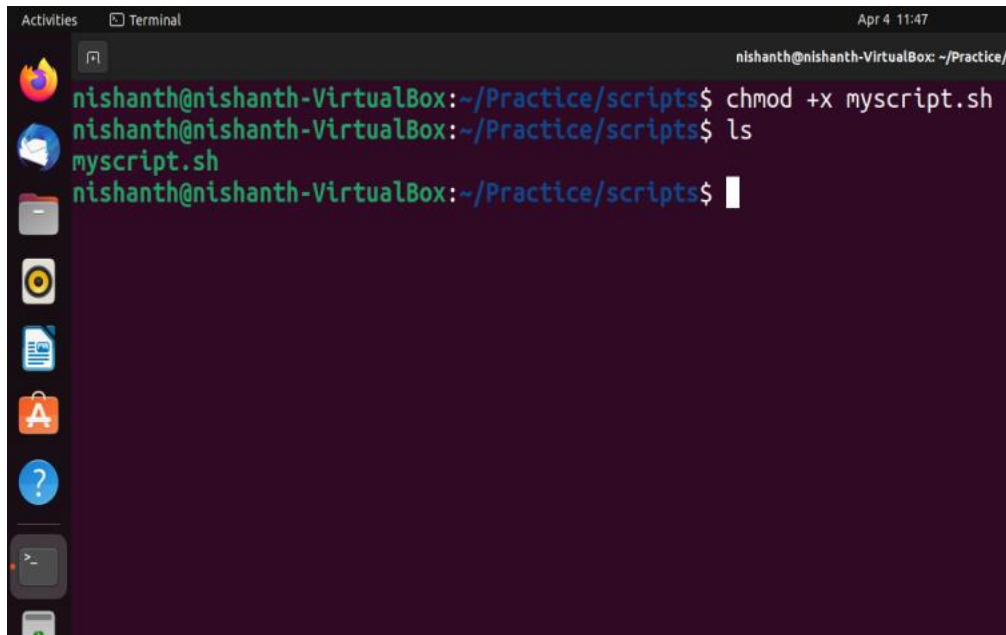
8. echo "Hello World!"



A terminal window titled "Terminal" with the subtitle "nishanth@nishanth-VirtualBox: ~/Practice/scripts". The prompt is "nishanth@nishanth-VirtualBox:~/Practice/scripts\$". The user enters "cat >myscript.sh", followed by "#!/bin/bash" and "echo 'Hello World'" on new lines. They press Ctrl-C (^C), then enter "cat myscript.sh", which displays "#!/bin/bash" and "echo 'Hello World'". The prompt returns to "nishanth@nishanth-VirtualBox:~/Practice/scripts\$".

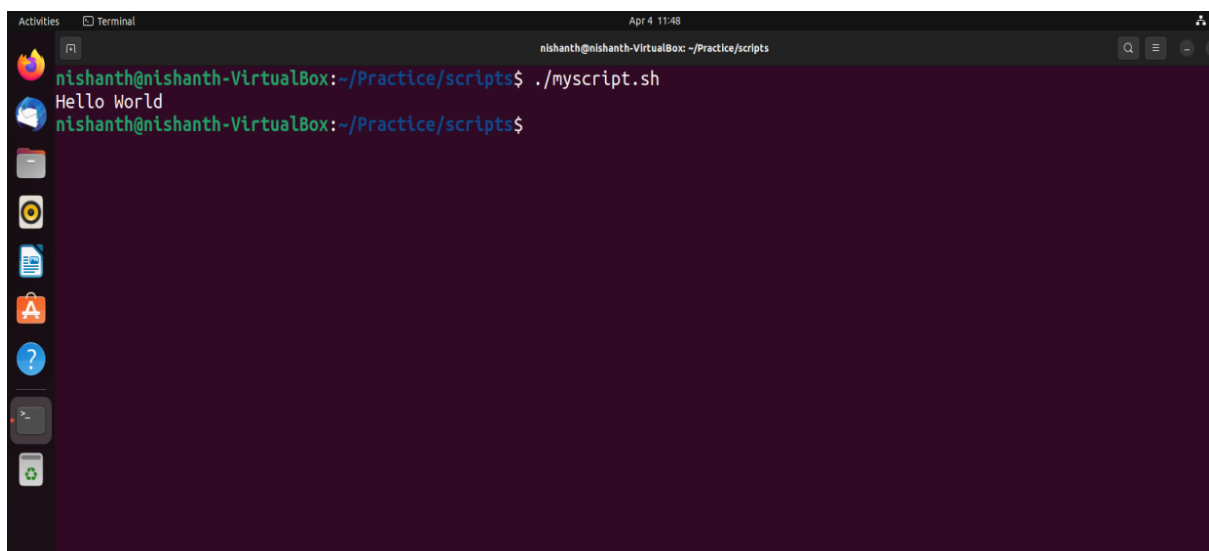
```
nishanth@nishanth-VirtualBox:~/Practice/scripts$ cat >myscript.sh
#!/bin/bash
echo "Hello World"
^C
nishanth@nishanth-VirtualBox:~/Practice/scripts$ cat myscript.sh
#!/bin/bash
echo "Hello World"
nishanth@nishanth-VirtualBox:~/Practice/scripts$
```

9. Make "myscript.sh" executable using the command "chmod +x myscript.sh".

A terminal window titled 'Terminal' with a dark background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice/scripts'. The user enters 'chmod +x myscript.sh' and then 'ls', which outputs 'myscript.sh'.

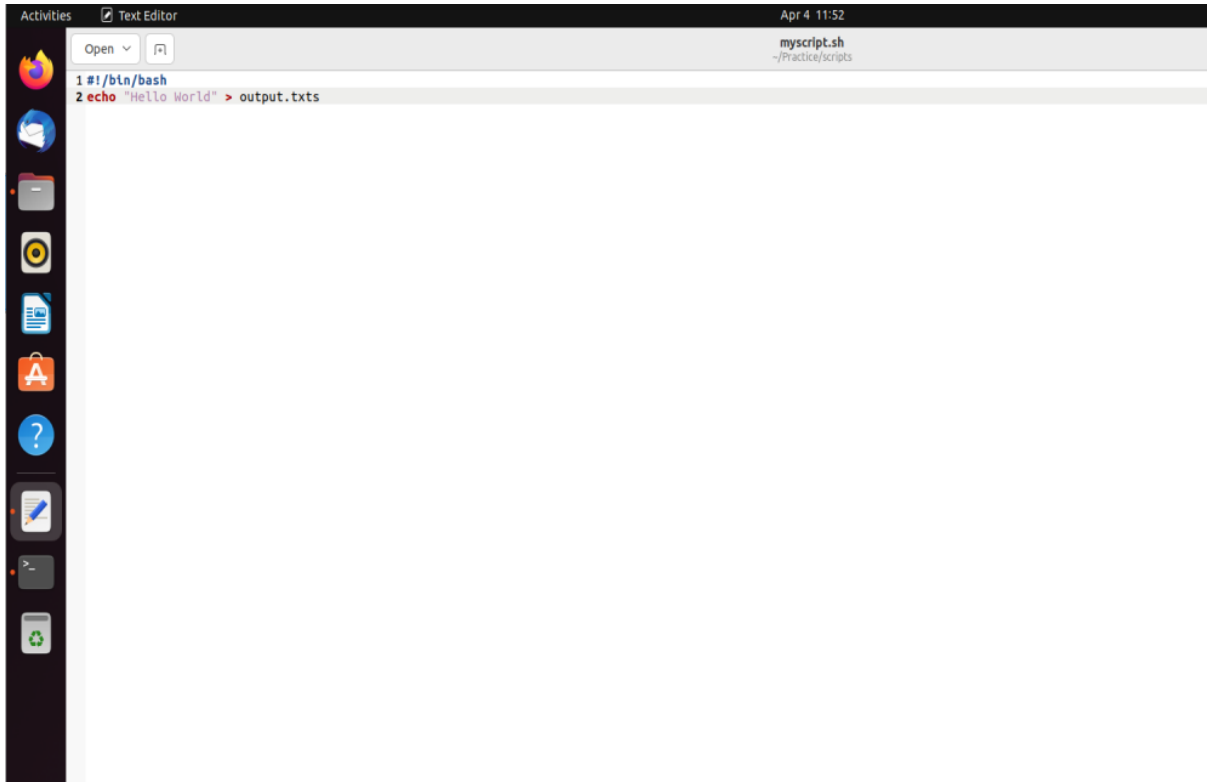
```
nishanth@nishanth-VirtualBox: ~/Practice/scripts$ chmod +x myscript.sh
nishanth@nishanth-VirtualBox: ~/Practice/scripts$ ls
myscript.sh
nishanth@nishanth-VirtualBox: ~/Practice/scripts$
```

10. Run "myscript.sh" using the command "./myscript.sh".

A terminal window titled 'Terminal' with a dark background. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice/scripts'. The user enters './myscript.sh', and the output 'Hello World' is displayed.

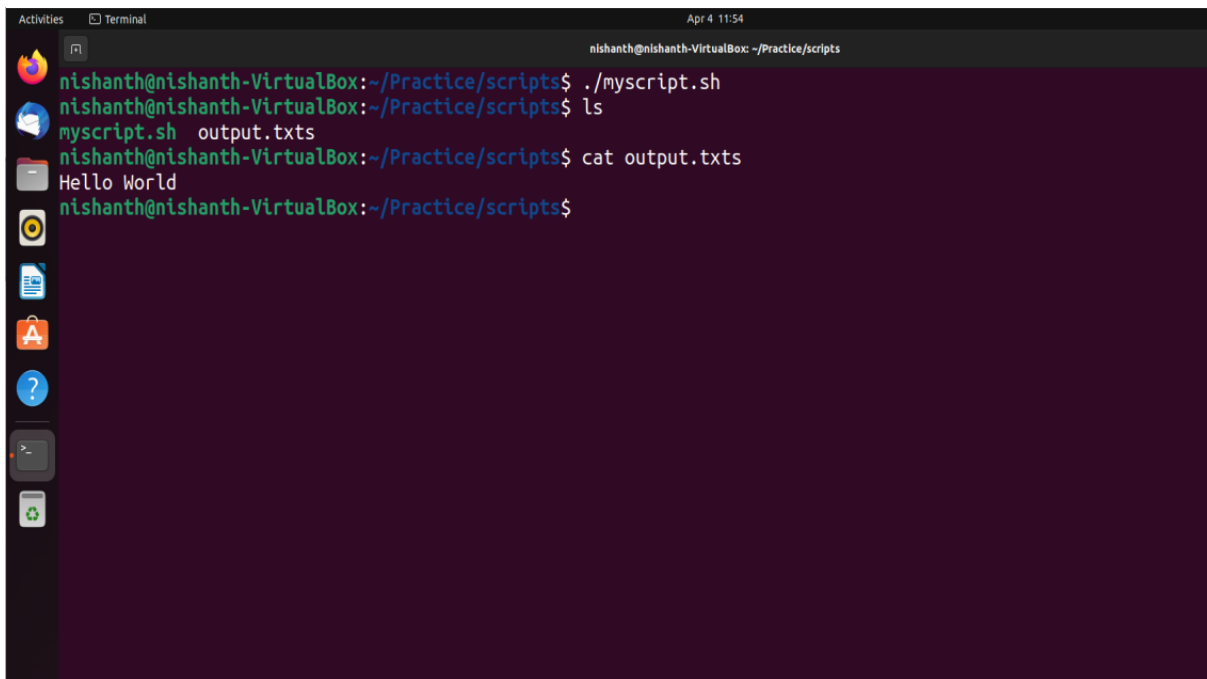
```
nishanth@nishanth-VirtualBox: ~/Practice/scripts$ ./myscript.sh
Hello World
nishanth@nishanth-VirtualBox: ~/Practice/scripts$
```

11. Add a line to "myscript.sh" that creates a new file called "output.txt" in the same directory and writes the output of the "echo" command to it.

A screenshot of a Linux desktop environment. The 'Text Editor' window is open, showing a file named 'myscript.sh' located at '~/Practice/scripts'. The file contains two lines of code: '1 #!/bin/bash' and '2 echo "Hello World" > output.txts'. The desktop has a sidebar with various application icons, including a web browser, file manager, and terminal.

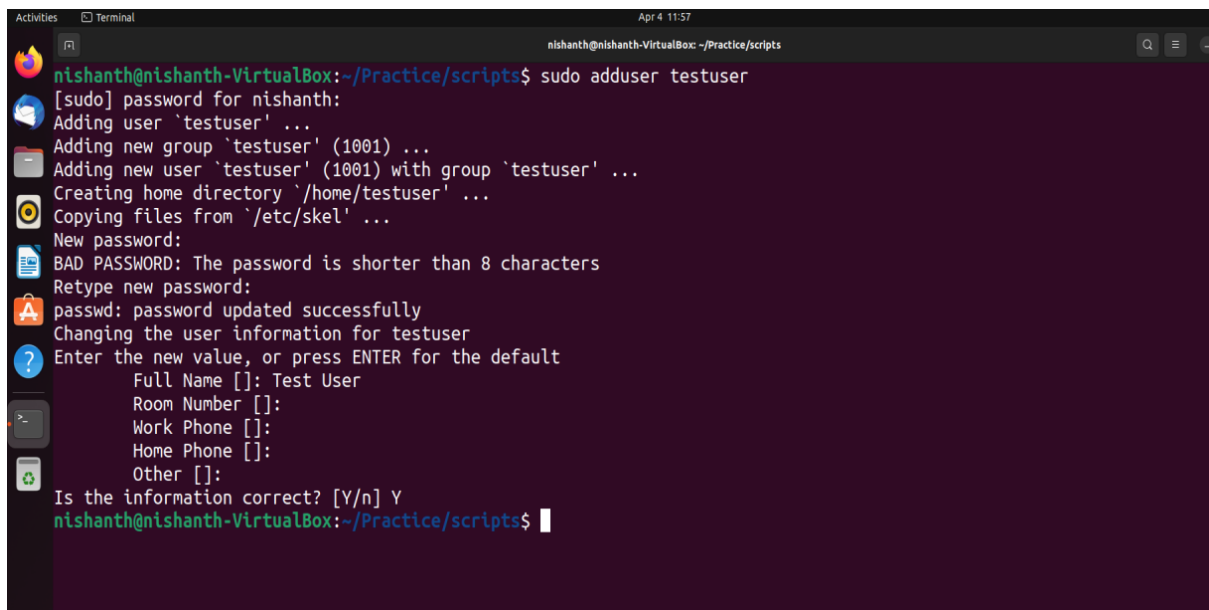
```
1 #!/bin/bash
2 echo "Hello World" > output.txts
```

12. Run "myscript.sh" again and verify that "output.txt" has been created and contains the expected output.

A screenshot of a Linux desktop environment. The 'Terminal' window is open, showing the execution of the 'myscript.sh' script. The user runs './myscript.sh', then 'ls' to see the files, and 'cat output.txts' to verify the output. The terminal shows the script was executed successfully, and the file 'output.txts' was created containing the text 'Hello World'.

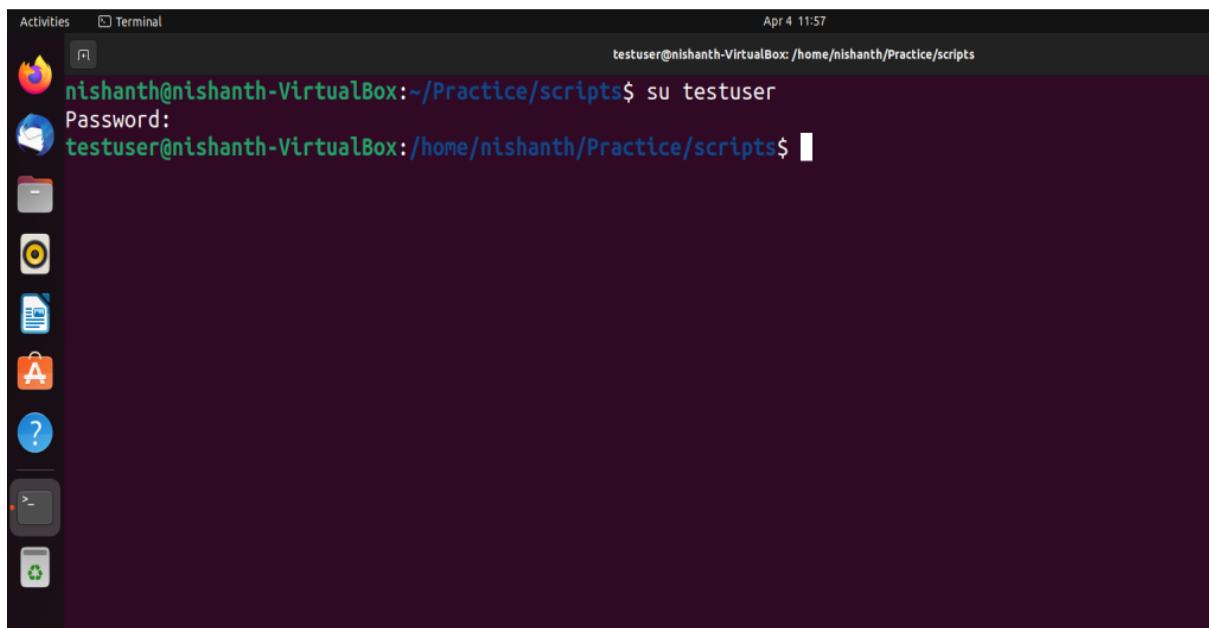
```
nishanth@nishanth-VirtualBox: ~/Practice/scripts
nishanth@nishanth-VirtualBox:~/Practice/scripts$ ./myscript.sh
nishanth@nishanth-VirtualBox:~/Practice/scripts$ ls
myscript.sh  output.txts
nishanth@nishanth-VirtualBox:~/Practice/scripts$ cat output.txts
Hello World
nishanth@nishanth-VirtualBox:~/Practice/scripts$
```

13. Create a new user account called "testuser".



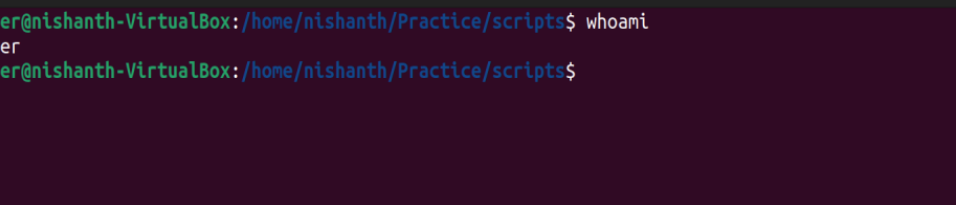
```
Activities Terminal Apr 4 11:57
nishanth@nishanth-VirtualBox: ~/Practice/scripts
nishanth@nishanth-VirtualBox:~/Practice/scripts$ sudo adduser testuser
[sudo] password for nishanth:
Adding user `testuser' ...
Adding new group `testuser' (1001) ...
Adding new user `testuser' (1001) with group `testuser' ...
Creating home directory `/home/testuser' ...
Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
Changing the user information for testuser
Enter the new value, or press ENTER for the default
  Full Name []: Test User
    Room Number []:
    Work Phone []:
    Home Phone []:
      Other []:
Is the information correct? [Y/n] Y
nishanth@nishanth-VirtualBox:~/Practice/scripts$
```

14. Switch to the "test user" account using the command "su testuser".



```
Activities Terminal Apr 4 11:57
testuser@nishanth-VirtualBox: /home/nishanth/Practice/scripts
nishanth@nishanth-VirtualBox:~/Practice/scripts$ su testuser
Password:
testuser@nishanth-VirtualBox: /home/nishanth/Practice/scripts$
```

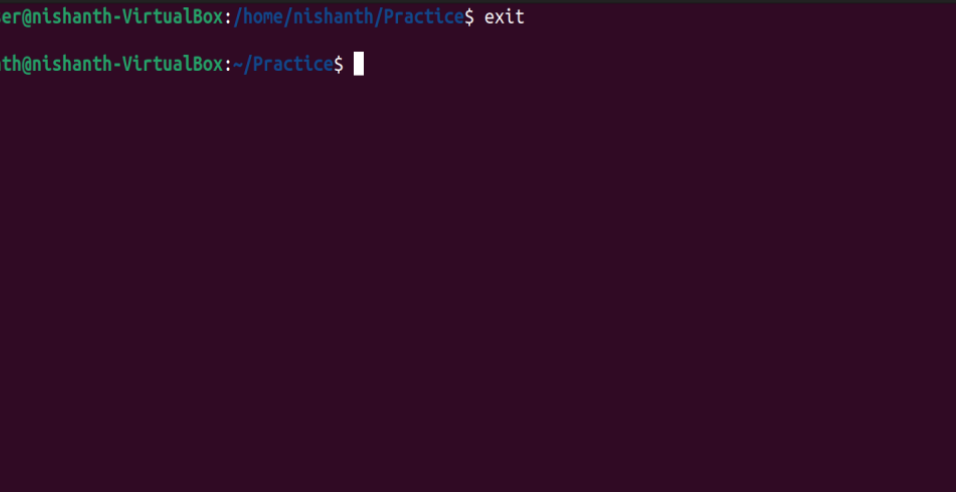
15. Verify that you are now logged in as "testuser" using the command "whoami".



The screenshot shows a terminal window with a dark background. The prompt is `testuser@nishanth-VirtualBox: /home/nishanth/Practice/scripts`. The user has entered `whoami` and the output is `testuser`. The terminal is part of a desktop environment with a sidebar on the left containing icons for various applications like a file manager, web browser, and terminal. The top of the window shows the title bar with 'Activities', 'Terminal', and the date/time 'Apr 4 11:58'.

```
testuser@nishanth-VirtualBox: /home/nishanth/Practice/scripts$ whoami
testuser
testuser@nishanth-VirtualBox: /home/nishanth/Practice/scripts$
```

16. Switch back to your original user account using the command "exit".



The screenshot shows a terminal window within a virtual machine. The title bar at the top indicates the date and time as 'Apr 4 12:02'. The terminal's title is 'nishanth@nishanth-VirtualBox: ~/Practice'. The prompt is 'nishanth@nishanth-VirtualBox: ~/Practice\$'. The user has entered the command 'exit', which has been executed, as indicated by the prompt changing to 'testuser@nishanth-VirtualBox: /home/nishanth/Practice\$ exit'. The terminal output shows 'exit' and then 'nishanth@nishanth-VirtualBox: ~/Practice\$' with a cursor. The desktop background is dark purple, and a vertical dock on the left contains icons for various applications, including a web browser, a file manager, and a terminal.