Study on basics of shell programming

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Branch: CSE-IOT   **Section/Group:** 1/A
Semester: 3rd   **Date of Performance:**19 /09/2020
Subject Name: Operating System lab
Subject Code:CSP 210

1. **Aim/Overview of the practical:**
   Study on basics of shell programming

2. Task to be done:

1. Open the linux terminal and name the script file.

2. Create a file using text editor.

3. Execute the script on linux terminal.

3. Commands & Explanations

Step 1**:** Need to create a file using text editor. Eg: vi editor.
Step 2: Name the script file with **extension.sh** (to save the file in shell)
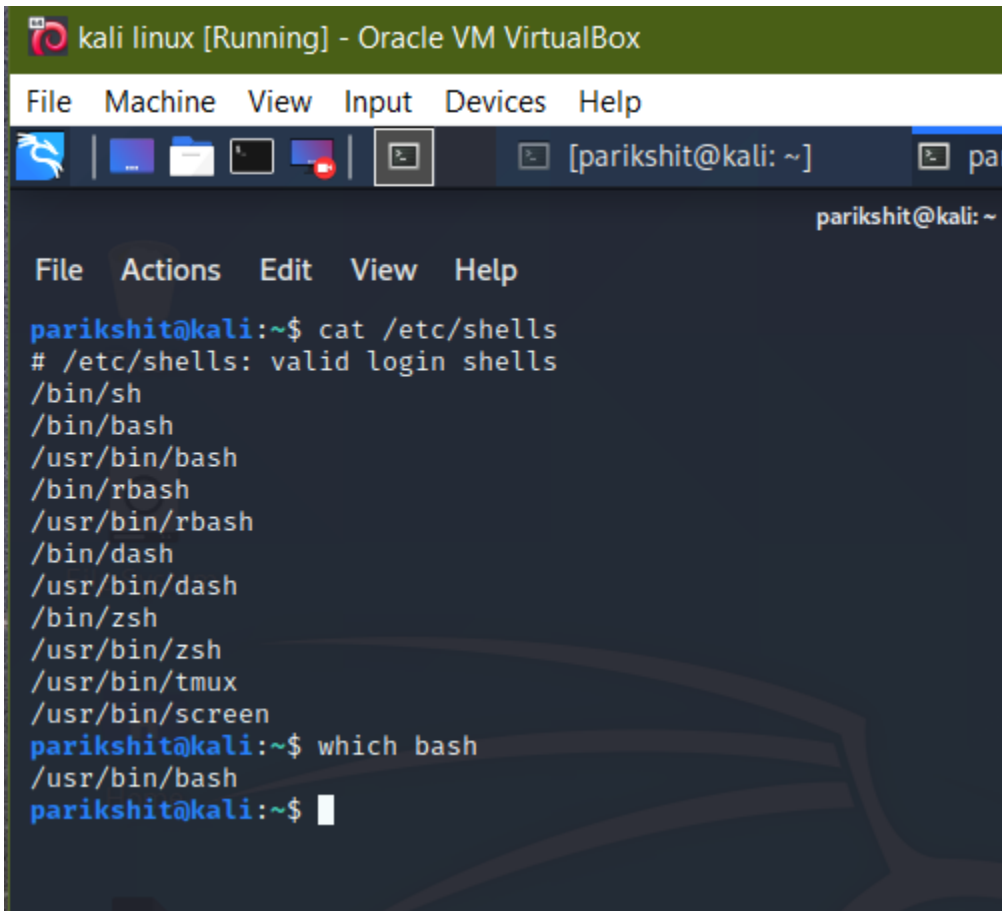Step 3: Start the script **#!/bin/sh**
Step 4: Write the code.
Step 5: Save the script file with **filename.sh**
[Come back to terminal]
Step 6: for executing this script file type **bash filename.sh**

4. Command Syntax:

1. **#!/bin/sh :** to start the script.
2. **filename.sh**: to save the file.
3. **bash filename.sh:** to execute the script file.
4. **echo** : It is used to display the output on Linux terminal.
5. **read** : It is used to read the input entered by the user or capture the input.

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kali linux [Running] - Oracle VM VirtualBox

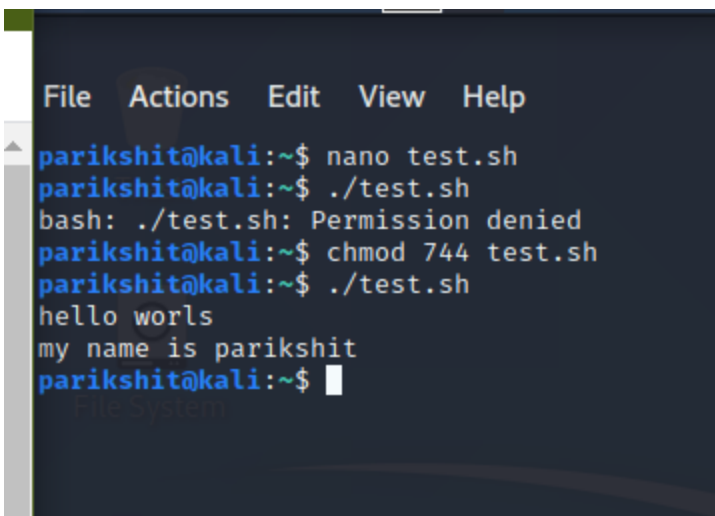File   Machine   View   Input   Devices   Help

[parikshit@kali: ~]   par

parikshit@kali: ~

File   Actions   Edit   View   Help

```
parikshit@kali:~$ cat /etc/shells
# /etc/shells: valid login shells
/bin/sh
/bin/bash
/usr/bin/bash
/bin/rbash
/usr/bin/rbash
/bin/dash
/usr/bin/dash
/bin/zsh
/usr/bin/zsh
/usr/bin/tmux
/usr/bin/screen
parikshit@kali:~$ which bash
/usr/bin/bash
parikshit@kali:~$ █
```

5. Output: Image of sample output to be attached here

File   Actions   Edit   View   Help

```
parikshit@kali:~$ nano test.sh
parikshit@kali:~$ ./test.sh
bash: ./test.sh: Permission denied
parikshit@kali:~$ chmod 744 test.sh
parikshit@kali:~$ ./test.sh
hello worls
my name is parikshit
parikshit@kali:~$ █
```

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File   Actions   Edit   View   Help

```
  GNU nano 4.9.3
#!/bin/bash
echo "enter your name: "
read name
if test "$name" ="tommy"
then
echo "this is dog"
else
echo "this is not dog"
fi
```

```
parikshit@kali:~$ nano t.sh
parikshit@kali:~$ ./t.sh
enter your name:
abc
./t.sh: line 4: test: abc: unary operator expected
this is not dog
parikshit@kali:~$ 
```

Learning outcomes (What I have learnt):

1. OS is made of many components but two primarily components are:

i) Kernel: Inner most part of OS and act as interface between user & hardware.

ii) Shell: Outer most part of OS, it take input from user interact with script.

2. Bourne shell is the shell which we are using in Linux. Prompt for this is $ sign.

3. Combining lengthy and repetitive command into file descriptor and further stored in a memory and perform when it is required.

4. Shell scripting is made to help end user in reducing his efforts.

5. In linux terminal echo command is used to display the output and read command to capture input.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			