

SHELL SCRIPT ASSIGNMENT:

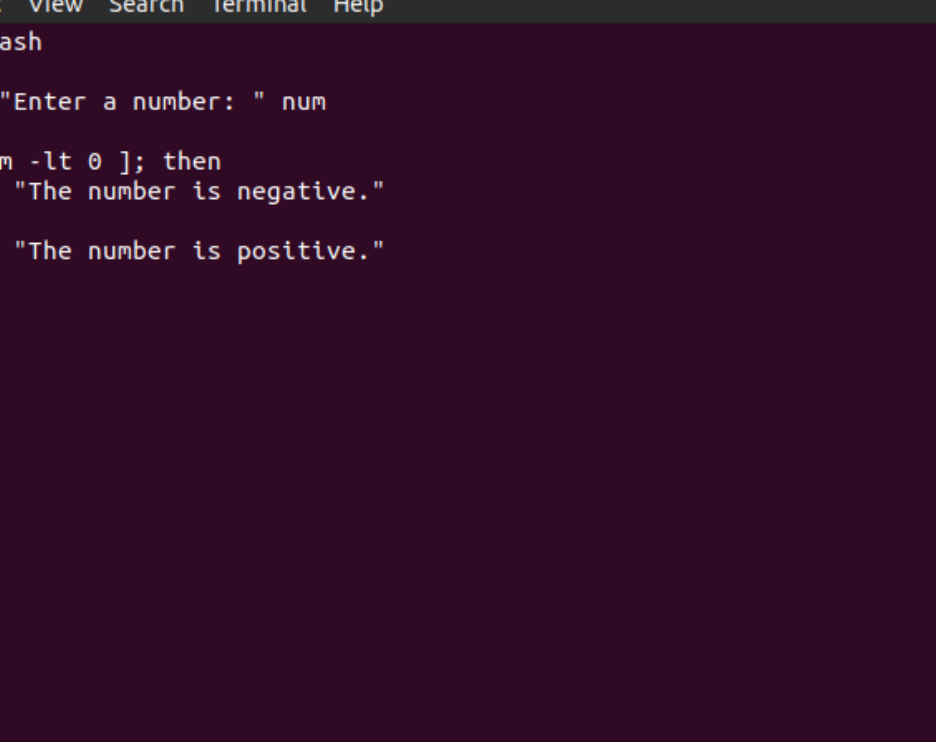
- Basic Commands
- If else
- For loop
- While loop
- Nested for loop
- Switch Cases
- Table and Table Related Commands

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
simran@simran-VirtualBox:~/Desktop/shells$ vi shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ./shell.sh
bash: ./shell.sh: Permission denied
simran@simran-VirtualBox:~/Desktop/shells$ vi shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ./shell.sh
bash: ./shell.sh: Permission denied
simran@simran-VirtualBox:~/Desktop/shells$ bash shell.sh
shell.sh: line 2: B#excersie: command not found
shell.sh: line 4: Secho: command not found

Rani
shell.sh: line 22: syntax error near unexpected token `)'
shell.sh: line 22: `Secho $expr 3 + 6)'
simran@simran-VirtualBox:~/Desktop/shells$ vi shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ :set backspace=indent,eol.start
Command ':set' not found, did you mean:
  command 'tset' from deb ncurses-bin (6.3-2)
  command 'cset' from deb cpuset (1.6-4.1)
  command 'xset' from deb x11-xserver-utils (7.7+9build1)
Try: sudo apt install <deb name>
simran@simran-VirtualBox:~/Desktop/shells$ tset backspace=indent,eol.start
tset: unknown terminal type backspace=indent,eol.start
Terminal type? vi
tset: unknown terminal type vi
Terminal type? vi
tset: unknown terminal type vi
Terminal type?
Terminal type?
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
">>
bash: syntax error near unexpected token `newline'
simran@simran-VirtualBox:~/Desktop/shells$ echo "set backspace=indent,eol.start
"
set backspace=indent,eol.start
simran@simran-VirtualBox:~/Desktop/shells$ vi shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi shell1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash shell1.sh
10
Rani
shell1.sh: line 7: 3+6: command not found
shell1.sh: line 12: y: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ext
simran@simran-VirtualBox:~/Desktop/shells$ ls
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [a-s]*
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls[!a-i]*
ls[!a-i]*: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls [!a-i]*
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [^i-s]*
ext
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
simran@simran-VirtualBox:~/Desktop/shells$ vi shell1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash shell1.sh
10
Rani
shell1.sh: line 7: 3+6: command not found
shell1.sh: line 12: y: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ext
simran@simran-VirtualBox:~/Desktop/shells$ ls
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [a-s]*
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [!a-i]*
ls[!a-i]*: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls [!a-i]*
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [^i-s]*
ext
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash ifelse1.sh
Enter a number: 2
The number is positive.
simran@simran-VirtualBox:~/Desktop/shells$
```



The screenshot shows a terminal window titled "simran@simran-VirtualBox: ~/Desktop/shells". The terminal has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The prompt is "#!/bin/bash". The script content is as follows:

```
read -p "Enter a number: " num
if [ $num -lt 0 ]; then
    echo "The number is negative."
else
    echo "The number is positive."
fi
```

Below the script, there are several tilde (~) characters representing line numbers. At the bottom, the command "cat ifelse1.sh" has been executed, resulting in the output: "ifelse1.sh" 10 lines, 148 bytes.

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
simran@simran-VirtualBox:~/Desktop/shells$ ls
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ext
simran@simran-VirtualBox:~/Desktop/shells$ ls
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [a-s]*
ext  shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls[!a-i]*
ls[!a-i]*: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls [!a-i]*
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [^i-s]*
ext
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash ifelse1.sh
Enter a number: 2
The number is positive.
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash forloop.sh
Enter the starting number: 2
Enter the ending number: 6
The sum of numbers between 2 and 6 is: 20
simran@simran-VirtualBox:~/Desktop/shells$
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
#!/bin/bash

# Initialize the sum variable
sum=0

# Prompt the user for the range of numbers
read -p "Enter the starting number: " start
read -p "Enter the ending number: " end

# Use a for loop to iterate through the range of numbers
for num in $(seq $start $end); do
    # Add each number to the sum
    sum=$((sum + num))
done

# Print the final sum
echo "The sum of numbers between $start and $end is: $sum"

~
~
~
~
~
~
~
~
~
"forloop.sh" 18 lines, 413 bytes
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
simran@simran-VirtualBox:~/Desktop/shells$ ls[!a-i]*
ls[!a-i]*: command not found
simran@simran-VirtualBox:~/Desktop/shells$ ls [!a-i]*
shell1.sh  shell.sh
simran@simran-VirtualBox:~/Desktop/shells$ ls [^i-s]*
ext
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash ifelse1.sh
Enter a number: 2
The number is positive.
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash forloop.sh
Enter the starting number: 2
Enter the ending number: 6
The sum of numbers between 2 and 6 is: 20
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi whileloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash whileloop.sh
Enter the starting number: 2
Enter the ending number: 3
2
3
simran@simran-VirtualBox:~/Desktop/shells$
```



```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
#!/bin/bash

# Initialize the counter variable
counter=1

# Prompt the user for the range of numbers
read -p "Enter the starting number: " start
read -p "Enter the ending number: " end

# Use a while loop to iterate through the range of numbers
while [ $counter -le $end ]; do
    if [ $counter -ge $start ]; then
        echo $counter
    fi
    counter=$((counter + 1))
done

~
~
~
~
~
~
~
~
~

"whileloop.sh" 17 lines, 378 bytes
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash ifelse1.sh
Enter a number: 2
The number is positive.
simran@simran-VirtualBox:~/Desktop/shells$ vi ifelse1.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash forloop.sh
Enter the starting number: 2
Enter the ending number: 6
The sum of numbers between 2 and 6 is: 20
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi whileloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash whileloop.sh
Enter the starting number: 2
Enter the ending number: 3
2
3
simran@simran-VirtualBox:~/Desktop/shells$ vi whileloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi nestedforloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash nestedforloop.sh
Enter the number of rows: 5
*
* *
* * *
* * * *
* * * * *
simran@simran-VirtualBox:~/Desktop/shells$
```

A screenshot of a terminal window titled "simran@simran-VirtualBox: ~/Desktop/shells". The terminal shows a shell prompt "#!/bin/bash" followed by several lines of code:

```
# Prompt the user for the number of rows  
read -p "Enter the number of rows: " rows  
  
# Outer loop to handle the number of rows  
for ((i=1; i<=rows; i++)); do  
    # Inner loop to handle the number of stars in each row  
    for ((j=1; j<=i; j++)); do  
        echo -n "*" "  
    done  
    echo ""  
done
```

The output consists of ten tilde (~) characters, one per line. At the bottom, it says '"nestedforloop.sh" 14 lines, 307 bytes'.

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
The sum of numbers between 2 and 6 is: 20
simran@simran-VirtualBox:~/Desktop/shells$ vi forloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi whileloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash whileloop.sh
Enter the starting number: 2
Enter the ending number: 3
2
3
simran@simran-VirtualBox:~/Desktop/shells$ vi whileloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi nestedforloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash nestedforloop.sh
Enter the number of rows: 5
*
* *
* * *
* * * *
* * * * *
simran@simran-VirtualBox:~/Desktop/shells$ vi nestedforloop.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi casestatement.sh
simran@simran-VirtualBox:~/Desktop/shells$ bash casestatement.sh
Please select an option:
1. Option 1
2. Option 2
3. Option 3
Enter your choice: 1
You selected Option 1.
simran@simran-VirtualBox:~/Desktop/shells$
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
#!/bin/bash

# Prompt the user for a choice
echo "Please select an option:"
echo "1. Option 1"
echo "2. Option 2"
echo "3. Option 3"
read -p "Enter your choice: " choice

# Use a case statement to handle the user's choice
case $choice in
    1)
        echo "You selected Option 1."
        ;;
    2)
        echo "You selected Option 2."
        ;;
    3)
        echo "You selected Option 3."
        ;;
    *)
        echo "Invalid choice."
        ;;
esac

~
"casestatement.sh" 25 lines, 465 bytes
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
Name
Vivek
Prakash

Rhul
ashish
rani
simran@simran-VirtualBox:~/Desktop/shells$ vi sname.sh
simran@simran-VirtualBox:~/Desktop/shells$ vi sname1.sh
simran@simran-VirtualBox:~/Desktop/shells$ cut -f1 sname1.sh
Sr.No.    Name
1
2
3
4
5
6
simran@simran-VirtualBox:~/Desktop/shells$ cut -f2 sname1.sh
Sr.No.    Name
Simran
Shruti
Vivek
Priya
Rahul
Anjali
simran@simran-VirtualBox:~/Desktop/shells$
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
    20
    15
Rahul 18
ashish
rani
simran@simran-VirtualBox:~/Desktop/shells$ paste sname1.sh smarks.sh
Sr.No.  Name  Marks
1       Simran 12
2       Shruti 13
3       Vivek 14
4       Priya 20
5       Rahul 15
6       Anjali 18

simran@simran-VirtualBox:~/Desktop/shells$ join sname1.sh smarks.sh
join: smarks.sh:6: is not sorted: 15
join: sname1.sh:2: is not sorted: 1    Simran
join: input is not in sorted order
simran@simran-VirtualBox:~/Desktop/shells$ tr "hi" "xy" <sname1.sh
Sr.No.  Name
1       Symran
2       Sxruty
3       Vyvek
4       Pryya
5       Raxul
6       Anjaly
simran@simran-VirtualBox:~/Desktop/shells$
```

```
simran@simran-VirtualBox: ~/Desktop/shells
File Edit View Search Terminal Help
join: input is not in sorted order
simran@simran-VirtualBox:~/Desktop/shells$ tr "hi" "xy" <sname1.sh
Sr.No.    Name
1         Symran
2         Sxruty
3         Vyvek
4         Pryya
5         Raxul
6         Anjaly
simran@simran-VirtualBox:~/Desktop/shells$ vi personname.sh
simran@simran-VirtualBox:~/Desktop/shells$ uniqx personname.sh
Command 'uniqx' not found, did you mean:
  command 'uniq' from deb coreutils (8.32-4.1ubuntu1)
Try: sudo apt install <deb name>
simran@simran-VirtualBox:~/Desktop/shells$ uniq personname.sh
Hello I am Simran
12333
Welcome to sai computer academy
What still I remember that name
Okay
How are you luser?
What i still remember that name.

simran@simran-VirtualBox:~/Desktop/shells$ grep ill personname.sh
What still I remember that name
What i still remember that name.
simran@simran-VirtualBox:~/Desktop/shells$
```