

1. List of problems that I have practiced today.

```
saaurabh@LenovoLegion5: ~/ShellScripting/ShellPractice
(saurabh@LenovoLegion5)~[~/ShellScripting/ShellPractice]
$ ls -l | awk '{print $NF}'
64
01_helloworld.sh
02_echoCommand.sh
03_comments.sh
04_whileLoop.sh
05_forLoop.sh
06_userInput.sh
07_if.sh
08_if_and_logic.sh
09_if_or_logic.sh
10_ifelse.sh
11_case.sh
12_command_line_argument.sh
13_combine_string.sh
14_substring.sh
15_function.sh
16_function_parameters.sh

(saurabh@LenovoLegion5)~[~/ShellScripting/ShellPractice]
$ cat 01_helloworld.sh
#!/bin/bash

echo "Hello World !"

(saurabh@LenovoLegion5)~[~/ShellScripting/ShellPractice]
$ ./01_helloworld.sh
Hello World !

(saurabh@LenovoLegion5)~[~/ShellScripting/ShellPractice]
$ cat 02_echoCommand.sh
#!/bin/bash

echo "Printing text with new line."
echo -n "Printing text without new line."
echo -e "\nRemoving \t backslash \t characters."

(saurabh@LenovoLegion5)~[~/ShellScripting/ShellPractice]
$ ./02_echoCommand.sh
Printing text with new line.
Printing text without new line.
```

4. While loop :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$ cat 04_whileLoop.sh
#!/bin/bash

valid=true
count=1

while [ $valid ]
do
    echo $count
    if [ $count -eq 5 ];
    then
        break
    fi
    ((count++))
done

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$ ./04_whileLoop.sh
1
2
3
4
5

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$
```

5. For loop :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$ cat 05_forLoop.sh
#!/bin/bash

#for i in 1 2 3 4 5
#do
#    echo $i
#done

for i in {1..5}
do
    echo $i
done

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$ ./05_forLoop.sh
1
2
3
4
5

(saurabh@ LenovoLegion5) - [~/ShellScripting/ShellPractice]
$
```

6. Taking input from user :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 06_userInput.sh
#!/bin/bash

echo -n "Enter your name : "
read name
echo "Hi $name, Welcome !"

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./06_userInput.sh
Enter your name : Saurabh
Hi Saurabh, Welcome !

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ _
```

7. If statement :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 07_if.sh
#!/bin/bash

echo -n "Enter your age : "
read age

if [ $age -ge 18 ]
then
    echo "You're eligible for voting."
else
    echo "You're not eligible for voting."
fi

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./07_if.sh
Enter your age : 24
You're eligible for voting.

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ _
```

8. If else statement with logical and :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 08_if_and_logic.sh
#!/bin/bash

echo "Enter your username : "
read username
echo "Enter your password : "
read password

if [[ $username == 'Saurabh' && $password == 'Pass@123' ]];
then
    echo "Welcome $username, to your home page. "
else
    echo "You're not a valid user."
fi

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./08_if_and_logic.sh
Enter your username :
Saurabh
Enter your password :
Pass@123
Welcome Saurabh, to your home page.

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$
```

9. If else statement with logical OR :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 09_if_or_logic.sh
#!/bin/bash

echo "Enter your role : "
read role
echo "Enter the password : "
read password

if [[ ($role == "Admin" || $role == "Manager" ) && $password == "Pass@123" ]];
then
    echo "Welcome $role !"
else
    echo "Person with admin and manager role can only access this."
fi

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./09_if_or_logic.sh
Enter your role :
Admin
Enter the password :
Pass@123
Welcome Admin !

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./09_if_or_logic.sh
Enter your role :
Customer
Enter the password :
Password
Person with admin and manager role can only access this.

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$
```

10. If else if :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 10_ifelse.sh
#!/bin/bash

echo "Enter your age : "
read age
echo "Enter your gender (M/F) : "
read gender

if [[ $age -ge 18 && $gender == 'F' ]];
then
    echo "You're eligible for marriage."
elif [[ $age -ge 21 && $gender == 'M' ]];
then
    echo "You're eligible for marriage."
else
    echo "You're not eligible for marriage."
fi

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./10_ifelse.sh
Enter your age :
19
Enter your gender (M/F) :
M
You're not eligible for marriage.

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$
```

11. Case :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 11_case.sh
#!/bin/bash

echo -n "Enter the number of day in week : "
read num

case $num in
    1)
        echo "Its Monday."
        ;;
    2)
        echo "Its Tuesday."
        ;;
    3)
        echo "Its Wednesday."
        ;;
    4)
        echo "Its Thursday."
        ;;
    5)
        echo "Its Friday."
        ;;
    6)
        echo "Its Saturday."
        ;;
    7)
        echo "Its Sunday."
        ;;
    *)
        echo "Not a valid week day."
        ;;
esac

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$ ./11_case.sh
Enter the number of day in week : 7
Its Sunday.

(saurabh@ LenovoLegion5)~/ShellScripting/ShellPractice
$
```

12. Command-line Arguments :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 12_command_line_argument.sh
#!/bin/bash

echo "Total number of arguments entered : $#."

echo "First argument value : $1"
echo "Second argument value : $2"
echo "Third argument value : $3"

sum=$(( $1+$2+$3 ))

echo "Sum of three number is $sum."

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ ./12_command_line_argument.sh 10 20 30
Total number of arguments entered : 3.
First argument value : 10
Second argument value : 20
Third argument value : 30
Sum of three number is 60.

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ _
```

13. Combining two strings :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 13_combine_string.sh
#!/bin/bash

echo "Enter first string : "
read string1
echo "Enter second string : "
read string2

string3=$string1+$string2
echo "Combined after concatenation : $string3 ."

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ ./13_combine_string.sh
Enter first string :
info
Enter second string :
bell
Combined after concatenation : info+bell .

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ _
```

14.Substring

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$ cat 14_substring.sh
#!/bin/bash

str="infobell IT solutions"
echo "Given string : $str"
#here 0 indicates the starting point of the substring and 8 indicates the number of character which are about to read.

substr=${str:0:8}
echo "Substring : $substr "
```

```
(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$ ./14_substring.sh
Given string : infobell IT solutions
Substring : infobell

(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$
```

15. Function

```
saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$ cat 15_function.sh
#!/bin/bash

function F1()
{
    echo 'I like shell scripting.'
}

F1

(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$ ./15_function.sh
I like shell scripting.

(saurabh@ LenovoLegion5)~/~/ShellScripting/ShellPractice
$
```

16. Function with parameter :

```
Select saurabh@LenovoLegion5: ~/ShellScripting/ShellPractice

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ cat 16_function_parameters.sh
#!/bin/bash

Rectangle_Area() {
    area=$(( $1 * $2 ))
    echo "Area of rectangle is : $area"
}

Rectangle_Area 10 20

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$ ./16_function_parameters.sh
Area of rectangle is : 200

(saurabh@LenovoLegion5)~/ShellScripting/ShellPractice
$
```