1) #shell program to illustrate is-else statement
#program to check weather given strings are equal are not

```
#!/bin/bash
echo "Enter string 1"
read username
echo "Enter string 2"
read pass

if [[($username == $pass)]];
then
echo "string are equal"
else
echo "string are not equal"
fi
```

Output:

```
student@CSDEPT-14 ~ $ chmod +x str.sh
student@CSDEPT-14 ~ $ ./str.sh
Enter String 1
abc
Enter String 2
abc
Strings are equal
```

2) #shell program to illustrate case statement
#program to implement simple calculator

```
#!/bin/bash

read -p "Integer1: " int1
read -p "Integer2: " int2
echo "--------------------   ----------------------------------------"
printf "Menu:\n(a)Addition\n(b) Subtraction\n(c)Multiplication\n(d)
Division\n"
echo "------------------------------------------------------------------"
read -p "your choice: " choice
ai=0

case $choice in
        a)    ai=$((  int1  +  int2  ));;
        b)    ai=$((  int1  -  int2  ));;
        c)    ai=$((  int1  *  int2  ));;
        d)    ai=$((  int1  /  int2  ));;
 *)
 echo "Invalid Input"
esac
echo "the result is :" $ai
```

Output:

```
student@CSDEPT-14 ~/65 $ chmod +x calculator.sh
student@CSDEPT-14 ~/65 $ ./calculator.sh
Integer1: 14
Integer2: 22
--------------------------------------------------------------------------
Menu:
(a)Addition
(b) Subtraction
(c)Multiplication
(d) Division
--------------------------------------------------------------------------
your choice: a
the result is : 36
student@CSDEPT-14 ~/65 $ ./calculator.sh
Integer1: 41
Integer2: 33
--------------------------------------------------------------------------
Menu:
(a)Addition
(b) Subtraction
(c)Multiplication
(d) Division
--------------------------------------------------------------------------
your choice: b
the result is : 8
student@CSDEPT-14 ~/65 $ ./calculator.sh
Integer1: 45
Integer2: 62
```

```
--------------------------------------------------------------------------------

Menu:
(a)Addition
(b) Subtraction
(c)Multiplication
(d) Division
--------------------------------------------------------------------------------
your choice: c
the result is : 2790
student@CSDEPT-14 ~/65 $ ./calculator.sh
Integer1: 122
Integer2: 144
--------------------------------------------------------------------------------
Menu:
(a)Addition
(b) Subtraction
(c)Multiplication
(d) Division
--------------------------------------------------------------------------------
your choice: d
the result is : 0
student@CSDEPT-14 ~/65 $ ./calculator.sh
Integer1: 14
Integer2: 2
--------------------------------------------------------------------------------
Menu:
(a)Addition
(b) Subtraction
(c)Multiplication
(d) Division
--------------------------------------------------------------------------------
your choice: d
the result is : 7
```

3) #shell program to illustrate while statement
#program to display welcome message 5 times

```
#!/bin/bash
n=1
while [ $n -le 5 ]
do
          echo "Welcome $n times"
          n=$((n+1))
done
```

Output:

```
student@CSDEPT-14 ~/65 $ chmod +x while.sh
student@CSDEPT-14 ~/65 $ ./while.sh
Welcome 1 times
Welcome 2 times
Welcome 3 times
Welcome 4 times
Welcome 5 times
```

4) #shell program to illustrate for statement
#shell program to display natural numbers from 1-9

```
#!/bin/bash

for var in 0\ 1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9
do
  echo $var
done
```

Output:

```
student@CSDEPT-14 ~/65 $ ./var.sh
0 1 2 3 4 5 6 7 8 9
```

5) #write a shell script to accept any two files names and check there file permissions

```
echo "Enter any 2 file name"
read F1 F2
if [ -e $F1 -a -e $F2 ]
  then
     ls -1 $F1 $F2
  else
echo "File not found"
fi
```

Ouput:

```
student@CSDEPT-14 ~/65 $ ./checkFP.sh
Enter any 2 file name
str11.sh var.sh
-rwxrwxrwx 1 student student 13 Mar 3 15:15 str11.sh
-rw-r--r-- 1 student student 13 Mar 3 14:55 var.sh
```

6) **#write a shell script to read a file name and change the existing file permissions**

```
echo "Enter any file name"
read F1
if [ -e $F1 ]
  then
    echo "File exists"
    echo "Before changing permission"
    ls -1 $F1
    chmod ugo+rwx $F1
    echo "After changing permission"
   ls -1 $F1
else
  echo "File does not exists"
fi
```

Output:

```
student@CSDEPT-14 ~/65 $ chmod +x ReadFX.sh
student@CSDEPT-14 ~/65 $ ./ReadFX.sh
Enter any file name
f1.txt
File exists
Before changing permission
-rw-r--r-- 1 student student 13 Mar 3 15:15 f1.txt
After changing permission
-rwxrwxrwx 1 student student 13 Mar 3 15:15 f1.txt
```