LINUX

IF STATEMENT

*One of the most commonly used programming constructs is the conditional execution, or the **if statement**. This statement is used to carry out certain commands based on testing a condition. For example, you might want to execute certain commands if the condition is true, and other commands if the condition is false.*

Bash Conditional Statements

Conditional statement: There are total 5 conditional statement which can be used in bash programming.

- if statement
- if-else statement
- if-elif statement
- if..elif..else..fi statement (Else if ladder)
- if..then..else..fi..then..fi..fi..(Nested if)

➢ if statement:

- Make a directory conditional statement.
  gedit if.sh (here if.sh is your file name with bash file extinction)

Input:

```
#! /bin/bash
echo " Enter a Number "
read n
if [ $n -lt 100 ]
then
echo " $n is less than 100 "
fi
```

Output:

```
ubuntu@ubuntu:~$ gedit if.sh
ubuntu@ubuntu:~$ chmod +x if.sh
ubuntu@ubuntu:~$ ./if.sh
 Enter a Number
45
 45 is less than 100
```

(Here chmod +x if.sh used for executable file)

➢ If-else statement:

- Make a new directory.
  gedit ifelse.sh (here ifelse.sh is your file name with bash file extinction)

Input:

```
#! /bin/bash
m=1
n=1
if [ $n -eq $m ]
then
echo " Both the variables are same "
else
echo " Both the variables are different "
fi
```

Output:

```
ubuntu@ubuntu:~$ gedit ifelse.sh
ubuntu@ubuntu:~$ chmod +x ifelse.sh
ubuntu@ubuntu:~$ ./ifelse.sh
 Both the variables are same
ubuntu@ubuntu:~$
```

➢ If-elif statement:

- Make a new directory.
  gedit ifelif.sh (here ifelif.sh is your file name with bash file extinction)

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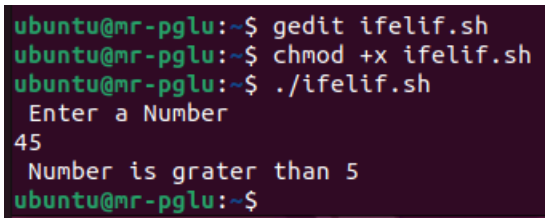
Input:

```
#! /bin/bash
echo " Enter a Number "
read a
if [ $a -gt 5 ]
then
echo " Number is grater than 5 "
elif [ $a -eq 5 ]
then
echo " Number is equal to 5 "
else
echo " Number is less than 5 "
fi
```

Output:



➢ if..elif..else..fi statement:

- Make a new directory.
  gedit ifelifelse.sh (here ifelifelse.sh is your file name with bash file extinction)

Input:

```
#! /bin/bash
echo " Enter your marks "
raed mark
```

```
if [ $mark -ge 90 ]
then
echo " Grade:- A+ "
elif [[ $mark -le 90 && $mark -ge 80 ]]
then
echo " Grade:- A "
elif [[ $mark -le 80 && $mark -ge 70 ]]
then
echo " Grade:- B+ "
elif [[ $mark -le 70 && $mark -ge 60 ]]
then
echo " Grade:- C+ "
else
echo " Grade:- F "
fi
```

Output:

➢ if..then..else..fi..then..fi..fi statement:

- Make a new directory.
  gedit nestedif.sh (here nestedif.sh is your file name with bash file extinction)

Input:

```
#! /bin/bash
echo " Enter First Number "
read var1
echo " Enter Second Number "
read var2
echo " Enter Third Number "
```

```
    read var3
    if [ $var1 -gt $var2 ]
    then
        if [ $var1 -ge $var3 ]
        then
        echo " $var1 is the largest number "
        else
        echo " $var3 is the largest number "
        fi
else
        if [ $var2 -ge $var3 ]
        then
        echo " $var2 is the largest number "
        else
        echo " $var3 is the largest number "
        fi
fi
```

Output:

```
ubuntu@mr-pglu:~$ gedit nestedif.sh
ubuntu@mr-pglu:~$ chmod +x nestedif.sh
ubuntu@mr-pglu:~$ ./nestedif.sh
" Enter First Number "
45
 Enter Second Number
65
 Enter Third Number
75
 75 is the largest number
```