If Statements



A simple **if statement** essentially states, if a particular test is true, then perform a specified set of actions. If it's not true, don't take those acts.

```
if [ <some test> ]
then
    <commands>
fi
```

```
#!/bin/bash
read -p "Input a number" number
if [ $number -gt 50 ]
then
  echo "The number is big."
fi
```

Output:

\$./if-statement.sh Input a number: 55 The number is big.

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Relational Operators



Operator	Description
-eq	equal
-ne	-ne
-gt	greater than
-lt	less than
-ge	greater than or equal
-le	less than or equal

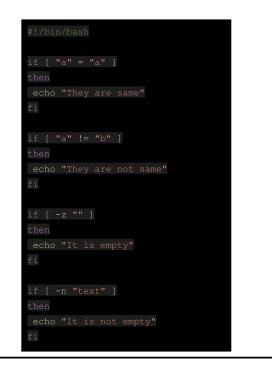
```
#!/bin/bash
read -p "Input a number" number
if [ $number -gt 50 ]
then
  echo "The number is big."
fi
```

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String Operators

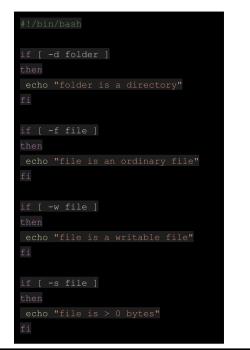
Operator	Description
=	equal
!=	not equal
-z	Empty string
-n	Not empty string





File Test Operators

Operator	Description
-d file	directory
-e file	exists
-f file	ordinary file
-r file	readable
-s file	size is > 0 bytes
-w file	writable
-x FILE	executable





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If Else Statements



If Else Statements execute a block of code if a statement is true, or another block of code if it is false.

```
if [ <some test> ]
then
  <commands>
else
  <other commands>
fi
```

Output:

```
$./ifelse-statement.sh
Input a number: 27
The number is bigger than or
equal to 10.
$./ifelse-statement.sh
Input a number: 5
The number is smaller than 10
```

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If Elif Else Statements



```
if [ <some test> ]
then
  <commands>
elif [ <some test> ]
then
  <different commands>
else
  <other commands>
fi
```

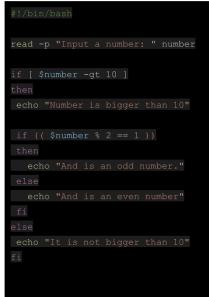
Output:

```
$./elif-statement.sh
Input a number: 15
The number is bigger than 10
$./elif-statement.sh
Input a number: 5
The number is smaller than
10
$./elif-statement.sh
Input a number: 10
The number is equal to 10
```

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Nested If Statements





Output:

(X = ale - age)

echo -ne '\007'

\$./nested-if-statement.sh Input a number: 40 Number is bigger than 10 And is an even number \$ \$./nested-if-statement.sh Input a number: 27 Number is bigger than 10 And is an odd number. \$ \$./nested-if-statement.sh Input a number: 5 It is not bigger than 10

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Exercise 1

- 1. Ask user to enter his/her name.
- 2. Ask user to enter his/her age.
- 3. Ask user average life expectancy (ale).
- 4. Print user name with one of these messages regarding his/her age:

```
a. age<18 : "Student"
```

"At least X years to become a worker." # (X = 18 - age)

b. 18<=age<65:

"Worker"

"X years to retire." # (X = 65 - age)

c. age>=65:

if age less than ale:

"Retired"

"X years to die."

else:

beep sound

"!!! Already died !!!"

wait 1 sec. "!!! Already died !!!"

wait 2 secs. "!!! Already died !!!"

Students, write your response!

Dana Danis Internation Stide

Pear Deck Interactive Slide