

Conditional Statement

$$p \rightarrow q$$

Converse

$$q \rightarrow p$$

Inverse

$$\sim p \rightarrow \sim q$$

Contrapositive

$$\sim q \rightarrow \sim p$$

29

All right angles measure 90° .

Conditional

If you have a right angle,
then it measures 90° .

Converse - SWITCH

Inverse - NEGATE

Contrapositive - SWITCH & NEGATE

Conditional Statements in Bash Programming

Learn about the different conditional statements available in Bash programming and how they can be used to control the flow of your scripts.

If Statement

The if statement allows you to execute a block of code if a specified condition is true.

```
if [ expression ]  
then  
    statement  
fi
```

If-Else Statement

The `if-else` statement provides an alternative block of code to be executed if the specified condition in the `if` part is not true.

```
if [ expression ]  
then  
    statement1  
else  
    statement2  
fi
```

If..Elif..Else..Fi Statement

The if..elif..else..fi statement, also known as the "Else If ladder," allows you to test multiple conditions and execute different blocks of code based on the first condition that is true.

```
if [ expression1 ]
then
    statement1
    statement2
    .
    .
elif [ expression2 ]
then
    statement3
    statement4
    .
    .
else
    statement5
fi
```

If..Then..Else..If..Then..Fi..Fi Statement

The `if..then..else..if..then..fi..fi` statement, also known as nested if, allows you to have multiple levels of conditional statements within your script.

Switch Statement

The `switch` statement provides a way to perform different actions based on the value of a variable or an expression.

```
case in  
    Pattern 1) Statement 1;;  
    Pattern n) Statement n;;  
esac
```

Checking If a File Exists

Use the `-f` option in the `if` statement to check if a file exists.

```
if [ -f "File.txt" ]; then
```

```
    echo "File is exist"
```

```
else
```

```
    echo "File is not exist"
```

```
fi
```

Checking If a Directory Exists

Use the `-d` option in the `if` statement to check if a directory exists.

```
if [[ -d "GFG_dir" ]] ;  
then  
echo "Directory is exist"  
else  
echo "Directory is not exist"  
fi
```