Conditional Statements

Conditional statements are the statements which we use in a program to perform any action/execution of something based on conditions. If the condition satisfies then only the following lines of code will be executed otherwise skipped. This helps to make conditions in a program.

For example: if, if...else, if...else if...else, switch...case are the conditional statements.

If statement

If statement is used when we just want to lay down a condition and decide whether the block of code within the if statement to be executed only when the condition specified in the if statement satisfies.

Format:

```
If (condition)
{
Statements / code to be executed when condition satisfies
}
```

If the condition is not satisfied then the compiler skips the statements under if block and move to the rest of program.

If...else statement

If...else statements are used when we want to execute some codes in either case of condition i.e. whether it satisfies or not, we have to execute few lines of code.

It functions as we give a condition in if statement, if the condition satisfies, then compiler executes the statements inside the if block otherwise execute the statements in else block.

Format:

```
If (condition)
{
Statements / code to be executed when condition satisfies
}
Else
```

```
{
Statements to be executed when condition fails
}
```

If...else if...else statements

This statement takes the if...else statements to a whole new level. It provides more versatility for multiple condition statements. Here, if the condition in if block does not satisfy the compiler moves to else...if block and check its condition, if satisfies executes the code and if not moves to next else if statement and finally to else statement if none satisfies.

Format:

```
If (condition 1)
{
Statements / code to be executed when condition 1 satisfies
}
Else...if (condition 2)
{
Statements to be executed when condition 1 fails but 2 passes
}
Else
{
Statements to be executed when both conditions fail
}
```

Switch...case statements

These statements can be used as an alternative to if...else if...else statements. They also serve the same purpose but works little differently.

The **switch** word starts the condition which contains the conditional expression and depending on the value provided by expression case statements are executed respectively.

Format:

```
switch (expression)
{
  case value1:
      Block1;
      break;
  case value2:
      Block 2;
      break;
}
Statement;
```

The value provided by expression in switch statement is checked in each case statement. Whichever case satisfies the block of that case gets executed and it breaks the loop by a break statement.