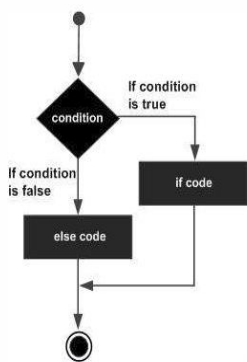


**If Condition**

If the boolean expression evaluates to **true**, then the **if block** of code is executed, otherwise **else block** of code is executed.

Flow Diagram



```
// if-else statement
if (condition)
{
    then-statement;
}
else
{
    else-statement;
}
// Next statement in the program.

// if statement without an else
if (condition)
```

**Chapter 8 Relational Operators - page 62**

The following table shows all the relational operators supported by C#. Assume variable **A** holds 10 and variable **B** holds 20, then

Operator	Description	Example
==	Checks if the values of two operands are equal or not, if yes then condition becomes true.	(A == B) is not true.
!=	Checks if the values of two operands are equal or not, if values are not equal then condition becomes true.	(A != B) is true.
>	Checks if the value of left operand is greater than the value of right operand, if yes then condition becomes true.	(A > B) is not true.
<	Checks if the value of left operand is less than the value of right operand, if yes then condition becomes true.	(A < B) is true.
>=	Checks if the value of left operand is greater than or equal to the value of right operand, if yes then condition becomes true.	(A >= B) is not true.
<=	Checks if the value of left operand is less than or equal to the value of right operand, if yes then condition becomes true.	(A <= B) is true.

### Week3 Introduction to Conditions

// Next statement in the program.

```
static void Main(string[] args)
{
    int number1 = 10, number2 = 20; // declare and initialize variables

    if (number1 < number2) // IF Condition Statement
    {
        WriteLine("Number1 {0} is Less than {1},number1,number2");
    }

    if (number1 == number2 ) // IF Condition Statement
    {
        Console.WriteLine("Number1 {0} is EQUAL to {1},number1,number2");
    }

    if (number1 > number2) // IF then Else Condition Statement
    {
        WriteLine("Number1 {0} is greater than {1},number1,number2");
    }
    else
    {
        WriteLine("Number1 {0} is NOT greater than {1},number1,number2");
    }
}
```

*Use place holder substitution to display the current value of the variable. Declare and initialize variable at top of program.*

Q1 Write a program to ask the user to enter a passcode ,if the input matches the passcode “secret” let the user know he/she is authenticated else display message Not Authenticated

### Q2

Write a program to enter the distance a car has covered (in KM) in a single journey and the time of that journey (in Hours), and return the average speed km per hour.

The average speed of an object is the total distance travelled by the object divided by the elapsed time to cover that distance.

#### Input

Distance in KM :

Time to take journey :

#### Output

**If the average speed is less than 40 km per hour**

Display the average speed per hour and you have been driving under the speed limit

**Else**

Display the average speed per hour and you have been driving under the speed limit