**C# Function**

Function is a block of code that has a signature. Function is used to execute statements specified in the code block. A function consists of the following components:

**Function name:** It is a unique name that is used to make Function call.

**Return type:** It is used to specify the data type of function return value.

**Body:** It is a block that contains executable statements.

**Access specifier:** It is used to specify function accessibility in the application.

**Parameters:** It is a list of arguments that we can pass to the function during call.

**C# Function Syntax**

1. <access-specifier><return-type>FunctionName(<parameters>)
2. {
3. // function body
4. // return statement
5. }

Access-specifier, parameters and return statement are optional.

Let's see an example in which we have created a function that returns a string value and takes a string parameter.

**C# Function: using no parameter and return type**

A function that does not return any value specifies **void** type as a return type. In the following example, a function is created without return type.

1. using System;
2. namespace FunctionExample
3. {
4. class Program
5. {
6. // User defined function without return type
7. public void Show() // No Parameter
8. {
9. Console.WriteLine("This is non parameterized function");
10. // No return statement
11. }
12. // Main function, execution entry point of the program
13. static void Main(string[] args)
14. {
15. Program program = new Program(); // Creating Object
16. program.Show(); // Calling Function
17. }
18. }
19. }

**Output:**

This is non parameterized function

**C# Function: using parameter but no return type**

1. using System;
2. namespace FunctionExample
3. {
4. class Program
5. {
6. // User defined function without return type
7. public void Show(string message)
8. {
9. Console.WriteLine("Hello " + message);
10. // No return statement
11. }
12. // Main function, execution entry point of the program
13. static void Main(string[] args)
14. {
15. Program program = new Program(); // Creating Object
16. program.Show("Rahul Kumar"); // Calling Function
17. }
18. }
19. }

**Output:**

Hello Rahul Kumar

A function can have zero or any number of parameters to get data. In the following example, a function is created without parameters. A function without parameter is also known as **non-parameterized** function.

**C# Function: using parameter and return type**

1. using System;
2. namespace FunctionExample
3. {
4. class Program
5. {
6. // User defined function
7. public string Show(string message)
8. {
9. Console.WriteLine("Inside Show Function");
10. return message;
11. }
12. // Main function, execution entry point of the program
13. static void Main(string[] args)
14. {
15. Program program = new Program();
16. string message = program.Show("Rahul Kumar");
17. Console.WriteLine("Hello "+message);
18. }
19. }
20. }

**Output:**

Inside Show Function

Hello Rahul Kumar