C# Constructor

In C#, constructor is a special method which is invoked automatically at the time of object creation. It is used to initialize the data members of new object generally. The constructor in C# has the same name as class or struct.

There can be two types of constructors in C#.

- ✓ Default constructor
- ✓ Parameterized constructor

C# Default Constructor

A constructor which has no argument is known as default constructor. It is invoked at the time of creating object.

C# Default Constructor Example: Having Main() within class

```
1.  using System;
2.    public class Employee
3.    {
4.        public Employee()
5.        {
6.            Console.WriteLine("Default Constructor Invoked");
7.        }
8.        public static void Main(string[] args)
9.        {
10.           Employee e1 = new Employee();
11.           Employee e2 = new Employee();
12.       }
13.   }
```

Output:

```
Default Constructor Invoked
Default Constructor Invoked
```

C# Default Constructor Example: Having Main() in another class

Let's see another example of default constructor where we are having Main() method in another class.

```
1. using System;
2.   public class Employee
3.    {
4.       public Employee()
5.       {
6.          Console.WriteLine("Default Constructor Invoked");
7.       }
8.    }
9.   class TestEmployee{
10.     public static void Main(string[] args)
11.      {
12.         Employee e1 = new Employee();
13.         Employee e2 = new Employee();
14.      }
15.   }
```

Output:

```
Default Constructor Invoked
Default Constructor Invoked
```

C# Parameterized Constructor

A constructor which has parameters is called parameterized constructor. It is used to provide different values to distinct objects.

```
1.  using System;
2.    public class Employee
3.     {
4.        public int id;
5.        public String name;
6.        public float salary;
7.        public Employee(int i, String n,float s)
8.        {
9.            id = i;
10.           name = n;
11.           salary = s;
12.       }
13.       public void display()
14.       {
15.           Console.WriteLine(id + " " + name+" "+salary);
16.       }
17.   }
18.   class TestEmployee{
19.      public static void Main(string[] args)
20.       {
21.           Employee e1 = new Employee(101, "Ali", 890000f);
22.           Employee e2 = new Employee(102, "Ahmed", 490000f);
23.           e1.display();
24.           e2.display();
25.
26.       }
27.    }
```

Output:

```
101 Ali 890000
102 Ahmed 490000
```