Use the **static** modifier to declare a static member, which belongs to the type itself rather than to a specific object. The **static** modifier can be used with fields, methods, properties, operators, events and constructors, but cannot be used with indexers, destructors, or types.

**Remarks**

* A constant or type declaration is implicitly a static member.
* A static member cannot be referenced through an instance. Instead, it is referenced through the type name. For example, consider the following class:
* public class MyBaseC
* {
* public struct MyStruct {
* public static int x = 100;
* }
* }

To refer to the static member x, use the fully qualified name (unless it is accessible from the same scope):

MyBaseC.MyStruct.x

* While an instance of a class contains a separate copy of all instance fields of the class, there is only one copy of each static field.
* It is not possible to use **this** to reference static methods or property accessors.

**Note**The **static** keyword is more limited in use than in C++. To compare with the C++ keyword, see [static](https://msdn.microsoft.com/en-us/library/s1sb61xd%28v=vs.71%29.aspx) in the *C++ Language Reference*.

To demonstrate instance members, consider a class that represents a company employee. Assume that the class contains a method to count employees and a field to store the number of employees. Both the method and the field do not belong to any instance employee. Instead they belong to the company class. Therefore, they should be declared as static members of the class.

For more information on constructors, see [10.10 Instance constructors](https://msdn.microsoft.com/en-us/library/aa645602%28v=vs.71%29.aspx).

**Example**

This example reads the name and ID of a new employee, increments the employee counter by one, and displays the information for the new employee as well as the new number of employees. For simplicity, this program reads the current number of employees from the keyboard. In a real application, this information should be read from a file.

// cs\_static\_keyword.cs

// Static members

using System;

public class Employee

{

public string id;

public string name;

public Employee ()

{

}

public Employee (string name, string id)

{

this.name = name;

this.id = id;

}

public static int employeeCounter;

public static int AddEmployee()

{

return ++employeeCounter;

}

}

class MainClass: Employee

{

public static void Main()

{

Console.Write("Enter the employee's name: ");

string name = Console.ReadLine();

Console.Write("Enter the employee's ID: ");

string id = Console.ReadLine();

// Create the employee object:

Employee e = new Employee (name, id);

Console.Write("Enter the current number of employees: ");

string n = Console.ReadLine();

Employee.employeeCounter = Int32.Parse(n);

Employee.AddEmployee();

// Display the new information:

Console.WriteLine("Name: {0}", e.name);

Console.WriteLine("ID: {0}", e.id);

Console.WriteLine("New Number of Employees: {0}",

Employee.employeeCounter);

}

}

**Input**

Tara Strahan

AF643G

15

**Sample Output**

Enter the employee's name: Tara Strahan

Enter the employee's ID: AF643G

Enter the current number of employees: 15

Name: Tara Strahan

ID: AF643G

New Number of Employees: 16