**Program:** To illustrate how to declare the string and initialize the string. Also, below program show the declaration and initialization of a string in a single line.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_1

{

class Program

{

static void Main(string[] args)

{

System.String Name;

// initialization of String

Name = "Geek";

String id;

// initialization of String

id = "33"

string mrk;

mrk = "97";

string rank = "1";

// Displaying Result

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

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

Console.WriteLine("Marks: {0}", mrk);

Console.WriteLine("Rank: {0}", rank);

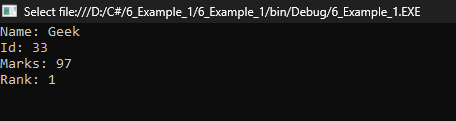
Console.ReadKey();

}

}

}

**Output:**



**Example:** To illustrate the creation of string arrays and assigning values to it

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_2

{

class Program

{

static void Main(string[] args)

{

String[] str\_arr = new String[3];

// Initialising the array of strings

str\_arr[0] = "Geeks";

str\_arr[1] = "For";

str\_arr[2] = "Geeks";

// printing String array

for (int i = 0; i < 3; i++)

{

Console.WriteLine("value at Index position " + i + " is " + str\_arr[i]);

}

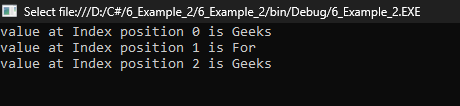
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate Reading

// String from User-Input

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_2

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the String");

String read\_user = Console.ReadLine();

// Displaying the user input

Console.WriteLine("User Entered: " + read\_user);

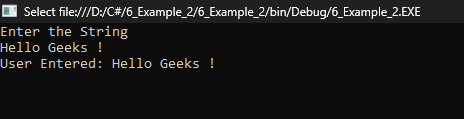
Console.ReadKey();

}

}

}

**Output:**



**Program:** To illustrate the string creation using literals

// C# program to demonstrate the

// string creation using literals

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_3

{

class Program

{

static void Main(string[] args)

{

string str1 = "GeeksforGeeks";

Console.WriteLine(str1);

// using double slash \\

string str2 = "X:\\Home\\GFG\\program.cs";

Console.WriteLine(str2);

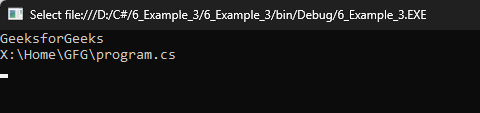
Console.ReadKey();

}

}

}

**Output:**



**Program:** To illustrates the use of the string concatenation operator

// C# program to demonstrate the use of

// the string concatenation operator.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_4

{

class Program

{

static void Main(string[] args)

{

string s1 = "Geek";

string s2 = "s";

string s3 = "For";

string s4 = "Geek";

// using concatenation operator

string str = s1 + s2 + s3 + s4 + "s";

Console.WriteLine(str);

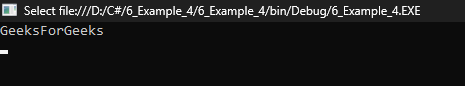
Console.ReadKey();

}

}

}

**Output:**



**Program:** To illustrates Creation of a string using the constructor

// C# program to demonstrate the creation

// of string using the constructor

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_6

{

class Program

{

static void Main(string[] args)

{

char[] chars = { 'G', 'E', 'E', 'K', 'S' };

// Create a string from a character array.

string str1 = new string(chars);

Console.WriteLine(str1);

// Create a string that consists of

// a character repeated 20 times.

string str2 = new string('G', 10);

Console.WriteLine(str2);

Console.ReadKey();

/\* below comment part give the error

for unsafe mode go through offline

sbyte[] bytes = { 0x41, 0x42, 0x43,

0x44, 0x45, 0x00 };

string stringtoBytes = null;

string stringtomChars = null;

unsafe

{

fixed (sbyte\* pbytes = bytes)

{

// Create a string from a pointer

// to a signed byte array.

stringFromBytes = new string(pbytes);

}

fixed (char\* pchars = chars)

{

// Create a string from a pointer

// to a character array.

stringFromChars = new string(pchars);

}

}

Console.WriteLine(stringtoBytes); // output : ABCDE

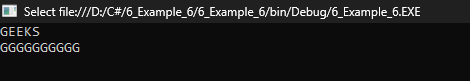
Console.WriteLine(stringtoChars); // output : GEEKS \*/

}

}

}

**Output:**



**Program:** To illustrate the Creation of a string using a Property or a Method

// C# program to extract a substring from a larger

// string using methods of the String class

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_7

{

class Program

{

static void Main(string[] args)

{

string sentence = "Geeks For Geeks";

// taking the first space position value

int startpos = sentence.IndexOf(" ") + 1;

// taking the second space position value

int endpos = sentence.IndexOf(" ", startpos) - startpos;

// now extract second word from the sentence

string wrd = sentence.Substring(startpos, endpos);

Console.WriteLine(wrd);

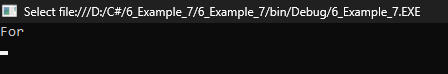
Console.ReadKey();

}

}

}

**Output:**



**Program:** To illustrate the creation of string using Format method

// C# method to illustrate the creation

// of string using format method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_8

{

class Program

{

static void Main(string[] args)

{

int no = 10;

string cname = "BMW";

string clr = "Red";

// string creation using string.Format method

string str = string.Format("{0} {1} Cars color " +

"are {2}", no.ToString(), cname, clr);

Console.WriteLine(str);

Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the creation

// of string using the constructor

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_9

{

class Program

{

static void Main(string[] args)

{

char[] chars = { 'G', 'E', 'E', 'K', 'S' };

// Create a string from a character array.

string str1 = new string(chars);

Console.WriteLine(str1);

// Create a string that consists of

// a character repeated 5 times.

string str2 = new string('E', 5);

Console.WriteLine(str2);

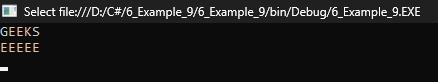
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// String Class Properties

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_10

{

class Program

{

static void Main(string[] args)

{

string str = "GeeksforGeeks";

// using Chars[Int32] & Length property

for (int i = 0; i <= str.Length - 1; i++)

Console.Write("{0} ", str[i]);

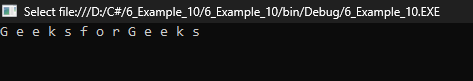
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to illustrate

// String class methods

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_11

{

class Program

{

static void copymethod()

{

string str1 = "GeeksforGeeks";

string str2 = "geeks";

Console.WriteLine("Original Strings: str1 = "

+ "'{0}' and str2 ='{1}'",

str1, str2);

Console.WriteLine("");

Console.WriteLine("After Copy method");

Console.WriteLine("");

// using the Copy method

// to copy the value of str1

// into str2

str2 = String.Copy(str1);

Console.WriteLine("Strings are str1 = "

+ "'{0}' and str2='{1}'",

str1, str2);

}

static void Main(string[] args)

{

// variables

string str1 = "geeksforgeeks";

string str2 = "geeksforgeeks";

bool result;

// Compare(string, string) method return true

// because the given strings are equal

result = String.Compare(str1, str2) == 0;

Console.WriteLine("Result of Compare Method: " + result);

// calling method

copymethod();

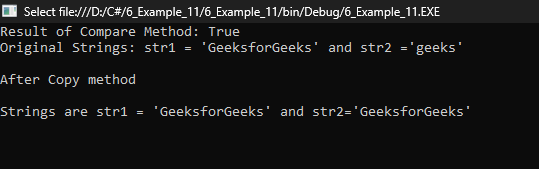
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to illustrate the

// Equality and Inequality operator

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_12

{

class Program

{

static void Main(string[] args)

{

string s1 = "WelcomeToGeeks";

string s2 = "WelcomeToGeeks";

bool result1, result2;

// Equality operator return true

// as both string are equal

result1 = s1 == s2;

// Inequality operator return false

// as both string are equal

result2 = s1 != s2;

Console.WriteLine(result1);

Console.WriteLine(result2);

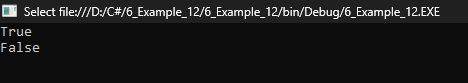
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// StringBuilder.Append(value) and

// StringBuilder.AppendLine(value) method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_13

{

class Program

{

static void Main(string[] args)

{

// "20" is capacity

StringBuilder s = new StringBuilder("HELLO ", 20);

s.Append("GFG");

// after printing "GEEKS"

// a new line append

s.AppendLine("GEEKS");

s.Append("GeeksForGeeks");

Console.WriteLine(s);

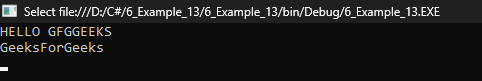
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// StringBuilder.AppendFormat() method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_14

{

class Program

{

static void Main(string[] args)

{

StringBuilder s = new StringBuilder("Your total amount is ");

// using the method

s.AppendFormat("{0:C} ", 50);

Console.WriteLine(s);

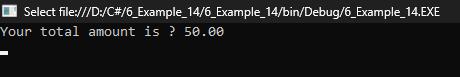
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// StringBuilder.Insert(int index,

// string value) method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_15

{

class Program

{

static void Main(string[] args)

{

// "20" is capacity

StringBuilder s = new StringBuilder("HELLO ", 20);

// "GEEKS" insert after 6th index

s.Insert(6, "GEEKS");

Console.WriteLine(s);

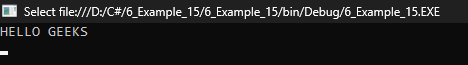
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// StringBuilder.Remove(int index,

// int length) method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_16

{

class Program

{

static void Main(string[] args)

{

// "20" is capacity

StringBuilder s = new StringBuilder("GeeksForGeeks", 20);

// remove starts from index 5

// and remove happes 3 index

// after index 5

s.Remove(5, 3);

Console.WriteLine(s);

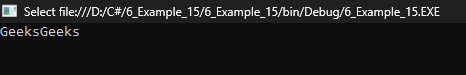
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// StringBuilder.Replace(string old\_val,

// string new\_val) method

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_17

{

class Program

{

static void Main(string[] args)

{

// "20" is capacity

StringBuilder s = new StringBuilder("GFG Geeks ", 20);

// Replace "GFG" with "Geeks For"

s.Replace("GFG", "Geeks For");

Console.WriteLine(s);

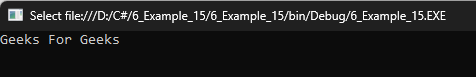
Console.ReadKey();

}

}

}

**Output:**



**Example:**

// C# program to demonstrate the

// difference between String,

// StringBuilder

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_6\_Example\_15

{

class Program

{

public static void concat1(String s1)

{

// taking a string which

// is to be Concatenate

String st = "forGeeks";

// using String.Concat method

// you can also replace it with

// s1 = s1 + "forgeeks";

s1 = String.Concat(s1, st);

}

// Concatenates to StringBuilder

public static void concat2(StringBuilder s2)

{

// using Append method

// of StringBuilder class

s2.Append("forGeeks");

}

static void Main(string[] args)

{

String s1 = "Geeks";

concat1(s1); // s1 is not changed

Console.WriteLine("Using String Class: " + s1);

StringBuilder s2 = new StringBuilder("Geeks");

concat2(s2); // s2 is changed

Console.WriteLine("Using StringBuilder Class: " + s2);

Console.ReadKey();

}

}

}

**Output:**

