Strings, which are widely used in Java programming, are a sequence of characters. In Java programming language, strings are treated as objects.

The Java platform provides the String class to create and manipulate strings.

Creating Strings

The most direct way to create a string is to write −

String greeting = "Hello world!";

Whenever it encounters a string literal in your code, the compiler creates a String object with its value in this case, "Hello world!'.

As with any other object, you can create String objects by using the new keyword and a constructor. The String class has 11 constructors that allow you to provide the initial value of the string using different sources, such as an array of characters.

public class StringDemo {

public static void main(String args[]) {

char[] helloArray = { 'h', 'e', 'l', 'l', 'o', '.' };

String helloString = new String(helloArray);

System.out.println( helloString );

}

}

## Concatenating Strings

The String class includes a method for concatenating two strings −

string1.concat(string2);

This returns a new string that is string1 with string2 added to it at the end. You can also use the concat() method with string literals, as in −

"My name is ".concat("Zara");

Strings are more commonly concatenated with the + operator, as in −

"Hello," + " world" + "!"

which results in −

"Hello, world!"

Let us look at the following example −

### Example

public class StringDemo {

public static void main(String args[]) {

String string1 = "saw I was ";

System.out.println("Dot " + string1 + "Tod");

}

}

## String Methods

Here is the list of methods supported by String class −

|  |  |
| --- | --- |
| **Sr.No.** | **Method & Description** |
| 1 | [**char charAt(int index)**](https://www.tutorialspoint.com/java/java_string_charat.htm)  Returns the character at the specified index. |
| 5 | [**String concat(String str)**](https://www.tutorialspoint.com/java/java_string_concat.htm)  Concatenates the specified string to the end of this string. |
| 10 | [**boolean equals(Object anObject)**](https://www.tutorialspoint.com/java/java_string_equals.htm)  Compares this string to the specified object. |
| 11 | [**boolean equalsIgnoreCase(String anotherString)**](https://www.tutorialspoint.com/java/java_string_equalsignorecase.htm)  Compares this String to another String, ignoring case considerations. |
| 16 | [**int indexOf(int ch)**](https://www.tutorialspoint.com/java/java_string_indexof.htm)  Returns the index within this string of the first occurrence of the specified character. |
| 17 | [**int indexOf(int ch, int fromIndex)**](https://www.tutorialspoint.com/java/java_string_indexof_fromindex.htm)  Returns the index within this string of the first occurrence of the specified character, starting the search at the specified index. |
| 18 | [**int indexOf(String str)**](https://www.tutorialspoint.com/java/java_string_indexof_str.htm)  Returns the index within this string of the first occurrence of the specified substring. |
| 19 | [**int indexOf(String str, int fromIndex)**](https://www.tutorialspoint.com/java/java_string_indexof_strfromindex.htm)  Returns the index within this string of the first occurrence of the specified substring, starting at the specified index. |
| 21 | [**int lastIndexOf(int ch)**](https://www.tutorialspoint.com/java/java_string_lastindexof.htm)  Returns the index within this string of the last occurrence of the specified character. |
| 22 | [**int lastIndexOf(int ch, int fromIndex)**](https://www.tutorialspoint.com/java/java_string_lastindexof_chfromindex.htm)  Returns the index within this string of the last occurrence of the specified character, searching backward starting at the specified index. |
| 23 | [**int lastIndexOf(String str)**](https://www.tutorialspoint.com/java/java_string_lastindexof_str.htm)  Returns the index within this string of the rightmost occurrence of the specified substring. |
| 24 | [**int lastIndexOf(String str, int fromIndex)**](https://www.tutorialspoint.com/java/java_string_lastindexof_fromindex.htm)  Returns the index within this string of the last occurrence of the specified substring, searching backward starting at the specified index. |
| 25 | [**int length()**](https://www.tutorialspoint.com/java/java_string_length.htm)  Returns the length of this string. |
| 29 | [**String replace(char oldChar, char newChar)**](https://www.tutorialspoint.com/java/java_string_replace.htm)  Returns a new string resulting from replacing all occurrences of oldChar in this string with newChar. |
| 30 | [**String replaceAll(String regex, String replacement**](https://www.tutorialspoint.com/java/java_string_replaceall.htm)  Replaces each substring of this string that matches the given regular expression with the given replacement. |
| 31 | [**String replaceFirst(String regex, String replacement)**](https://www.tutorialspoint.com/java/java_string_replacefirst.htm)  Replaces the first substring of this string that matches the given regular expression with the given replacement. |
| 37 | [**String substring(int beginIndex)**](https://www.tutorialspoint.com/java/java_string_substring.htm)  Returns a new string that is a substring of this string. |
| 38 | [**String substring(int beginIndex, int endIndex)**](https://www.tutorialspoint.com/java/java_string_substring_beginendindex.htm)  Returns a new string that is a substring of this string. |
| 40 | [**String toLowerCase()**](https://www.tutorialspoint.com/java/java_string_tolowercase.htm)  Converts all of the characters in this String to lower case using the rules of the default locale. |
| 41 | [**String toLowerCase(Locale locale)**](https://www.tutorialspoint.com/java/java_string_tolowercase_locale.htm)  Converts all of the characters in this String to lower case using the rules of the given Locale. |
| 43 | [**String toUpperCase()**](https://www.tutorialspoint.com/java/java_string_touppercase.htm)  Converts all of the characters in this String to upper case using the rules of the default locale. |
| 44 | [**String toUpperCase(Locale locale)**](https://www.tutorialspoint.com/java/java_string_touppercase_locale.htm)  Converts all of the characters in this String to upper case using the rules of the given Locale. |
| 45 | [**String trim()**](https://www.tutorialspoint.com/java/java_string_trim.htm)  Returns a copy of the string, with leading and trailing whitespace omitted. |