

How to get the index of first occurrence of a substring in a String using Java ?

Get the index of the first occurrence of a substring in a String using Java?

To find the index of first occurrence of a substring in a string you can use `String.indexOf()` function.

A string, say `str2`, can occur in another string, say `str1`, n number of times. There could be a requirement in your Java application, that you have to find the position of the first occurrence of `str2` in `str1`. Or you may need to find nth occurrence.

In this tutorial, we shall learn to get the index of first occurrence of a string in another string using Java.

We shall make use of `String.indexOf(String otherString)` method, to find the index of first occurrence of string `str2` in `str1`. If the string `str2` is present in the other string `str1`, it returns the index of its first occurrence. If it is not present, then it returns `-1` indicating that the string `str2` is not present in the string `str1`.

Example – Get the index of first occurrence of a substring

In this example, we shall initialize two strings with variable names `str1` and `str2`. And we are going to find the first occurrence of `str2` in `str1`.

```
/**
 * Java Example program to find the index of first occurrence of a substring in a string
 */
public class FirstOccurrenceExample {

    public static void main(String[] args) {
        //initialize strings
        String str1 = "hello world good morning. good day.";
        String str2 = "good";

        //get the index of str2 in str1
        int indexOfSubStr = str1.indexOf(str2);

        System.out.println("str2 first appeared in str1 at index : "+ indexOfSubStr);
    }
}
```

When the above program is run, the output to the console is as shown below :

```
str2 first appeared in str1 at index : 12
```

Example – Get the index of first occurrence of a substring – Ignore Case

In this example, we ignore the case of both the strings and try to find the occurrence of string `str2` in string `str1` . To ignore the case, we have actually converted the strings to lowercase and then applied the function `indexOf()`.

Please note that with the strings `str1` and `str2` in the below program, if you consider the case, `indexOf()` would return `-1` . But as we are ignoring the case, we got `str2="GOOD"` and `GoOd` in `str1` matched.

```
/**
 * Java Example program to find the index of first occurrence of a substring in a string
 */
public class FirstOccurrenceExample {

    public static void main(String[] args) {
        //initialize strings
        String str1 = "hello world GoOd morning. gOOD day.";
        String str2 = "GOOD";

        //ignore case and get the index of str2 in str1
        int indexOfSubStr = str1.toLowerCase().indexOf(str2.toLowerCase());

        System.out.println("str2 first appeared in str1 at index : "+ indexOfSubStr);
    }
}
```

Run the program.

```
str2 first appeared in str1 at index : 12
```

Conclusion

In this [Java Tutorial](#), we have learned how to get index of first occurrence of a substring in a String, by considering or ignoring the case of alphabets.

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Java String Operations

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⇒ **Java - Find Index of First Occurrence of Substring**

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