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Split() String method in Java with examples

The string split() method breaks a given string around matches of the given regular expression.

For Example:

```
Input String: 016-78967
Regular Expression: -
Output : ("016", "78967")
```

Following are the two variants of split() method in Java:

1. Public String [] split (String regex, int limit)

Parameters:
regex - a delimiting regular expression
Limit - the result threshold

Returns:
An array of strings computed by splitting the given string.

Throws:
PatternsyntaxException - if the provided regular expression's syntax is invalid.

```
limit > 0 : If this is the case then the pattern will be
applied at most limit-1 times, the resulting
array's length will not be more than n, and
the resulting array's last entry will contain
all input beyond the last matched pattern.

limit < 0 : In this case, the pattern will be applied as
many times as possible, and the resulting
array can be of any size.

limit = 0 : In this case, the pattern will be applied as
many times as possible, the resulting array can
be of any size, and trailing empty strings will
be discarded.
```

Here's how it works:

Let the string to be splitted be : **geekssfor@geekss**

Regex	Limit	Result
@	2	{"geekss", "for@geekss"}
@	5	{"geekss", "for", "geekss"}
@	-2	{"geekss", "for", "geekss"}
s	5	{"geek", "", "@for@geek", "", ""}
s	-2	{"geek", " ", "for@geek", "", ""}
s	0	{"geek", "", "for@geek"}

Following are the Java example codes to demonstrate working of split()

Example 1:

```
// Java program to demonstrate working of split(regex,
// limit) with small limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("@", -1);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geekss
for
geekss
```

Example 2:

```
// Java program to demonstrate working of split(regex,
// limit) with high limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("@", 5);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geekss
for
geekss
```

Example 3:

```
// Java program to demonstrate working of split(regex,
// limit) with negative limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("@", -2);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geekss
for
geekss
```

Example 4:

```
// Java program to demonstrate working of split(regex,
// limit) with high limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("s", 5);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geek
@for@geek
```

Example 5:

```
// Java program to demonstrate working of split(regex,
// limit) with negative limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("s", -2);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geek
@for@geek
```

Example 6:

```
// Java program to demonstrate working of split(regex,
// limit) with 0 limit.
public class GFG {
    public static void main(String args[])
    {
        String str = "geekssfor@geekss";
        String[] arrOfStr = str.split("s", 0);
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
Geek
@for@geek
```

Here are some working example codes:

Example 1:

```
// Java program to demonstrate working of split()
public class GFG {
    public static void main(String args[])
    {
        String str = "GeeksforGeeks:A Computer Science Portal";
        String[] arrOfStr = str.split(":");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
GeeksforGeeks
A Computer Science Portal
```

Example 2:

```
// Java program to demonstrate working of split()
public class GFG {
    public static void main(String args[])
    {
        String str = "GeeksforGeeksforStudents";
        String[] arrOfStr = str.split("for");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
Geeks
Geeks
Students
```

It can be seen in the above example that the pattern/regular expression "for" is applied twice (because "for" is present two times in the string to be splitted)

Example 3:

```
// Java program to demonstrate working of split()
public class GFG {
    public static void main(String args[])
    {
        String str = "Geeks for Geeks";
        String[] arrOfStr = str.split(" ");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
Geeks
for
Geeks
```

Example 4:

```
// Java program to demonstrate working of split()
public class GFG {
    public static void main(String args[])
    {
        String str = "Geeksssss";
        String[] arrOfStr = str.split("s");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
Geek
```

In the above example that trailing empty strings are not included in the resulting array arrOfStr.

Example 5:

```
// Java program to demonstrate working of split()
public class GFG {
    public static void main(String args[])
    {
        String str = "GeeksforforGeeksfor ";
        String[] arrOfStr = str.split("for");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
geeks
geeks
```

In the above example, the trailing spaces (hence not empty string) in the end becomes a string in the resulting array arrOfStr.

Example 6:

```
// Java program to demonstrate working of split()
// using regular expressions
public class GFG {
    public static void main(String args[])
    {
        String str = "word1 word2 word3word4word5 word6";
        String[] arrOfStr = str.split("[, ?.@!+");
        for (String a : arrOfStr)
            System.out.println(a);
    }
}
```

Output:

```
word1
word2
word3
word4
word5
word6
```

In the above example, words are separated whenever either of the characters specified in the set is encountered.

This article is contributed by **Valbhav Bajpal**. If you like GeeksforGeeks and would like to contribute, you can also write an article using contribute.geeksforgeeks.org or mail your article to contribute@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.

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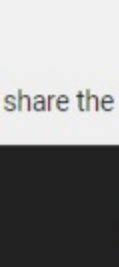
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