

JPL :: Strings

TalentSprint

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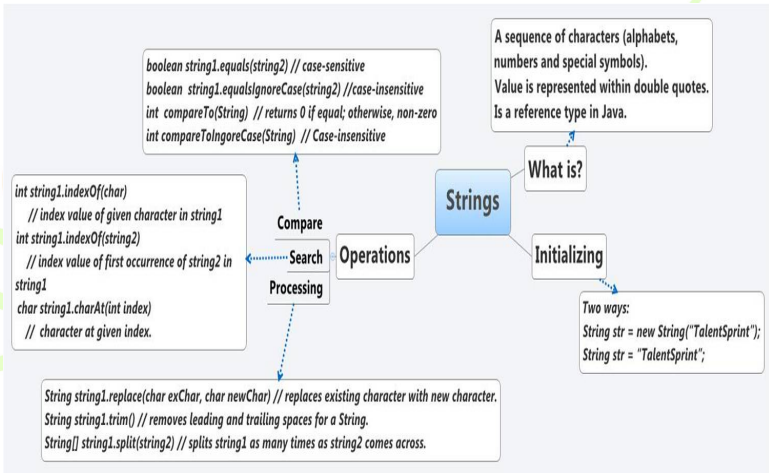
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Learning Objectives

The content in this presentation is aimed at teaching learners to:

- write programs that use and manipulate strings in Java.

Strings



Strings

Let us recollect the Java program that adds numbers.

```
public class SumExample2 {  
    public static void main(String[] args) {  
        int next, sumSoFar;  
        next = Integer.parseInt(args[0]);  
        sumSoFar = next;  
        next = Integer.parseInt(args[1]);  
        sumSoFar += next;  
        next = Integer.parseInt(args[2]);  
        sumSoFar += next;  
        System.out.println("Sum: " + sumSoFar);  
    }  
}
```

Strings

What is the meaning of **String[]** args in the main method?

- It is to specify that the parameters of the main method are an array of strings referred to by a variable name args.
- A sequence of characters each of which can be an alphabet, number or a special symbol.
- String is a reference type in Java.
- The value of a String must be within double quotes (" ") e.g. "Blake"

Strings

Creating Strings

Like any other type of variable, a String variable is declared as follows.

String variable_name;

e.g. String name;

Then, a value is assigned as follows.

name = "TalentSprint"; OR

name = **new** String("TalentSprint");

Declaration and assignment can be in one statement. E.g.

String name = **new** String("TalentSprint"); OR

String name = "TalentSprint";

Strings

String Comparison

Strings can not be compared using relational operators such as `<`, `>`, `==` etc. Instead, an `equals()` method is used which returns `true` in case both are equal and `false` otherwise.

Example

```
String name1 = "James";  
String name2 = "adam";  
System.out.print(name1.equals(name2));
```

Strings

Methods for String Comparison

boolean equals(String) For Case-sensitive comparison

boolean equalsIgnoreCase(String) Case-insensitive comparison

int compareTo(String) Case-sensitive comparison; Return value of zero means equality, otherwise, inequality

int compareToIgnoreCase(String) Case-insensitive comparison

Strings

Other operations on Strings

String toUpperCase(String) Converts lower-case to upper-case

String toLowerCase(String) Converts upper-case to lower-case

char charAt(int index) Returns character at given index

char[] toCharArray(String) Returns character array for given String

int length() Returns No. Of characters in a String

Strings

Other operations on Strings

int indexOf(char) Returns index value of given character in a String

String replace(char exChar, char newChar)
Replaces existing character with new character

String trim() Removes leading and trailing spaces for a String

String[] split(String) Splits the String as many times as given String i.e. parameter comes across and returns parts as a String array.

Strings

Other operations on Strings

String substring(int start_Index, int end_Index)

Returns sub-string as per given index range

String concat(String) Joins two strings and returns it

boolean startsWith(String prefix) Returns true if String starts with given prefix

boolean endsWith(String suffix) Returns true if String ends with given suffix

Strings

- 1 Write a function that removes all occurrences of vowels in a given string and returns the string without vowels.
- 2 Write a function which returns the count of number of times the given character exists in a string.

Strings

- ③ Write a program which displays the following output. for a given input : 1,2,3,4,5-8,9,10,11-15,16-25 Output : 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25
- ④ Two words are called anagrams if they have same letters and each letter occurs same no of times e.g. silent listen
Write a method which accepts two strings and returns true if they are anagrams else return false.

Strings

tal
sp

