

Java for beginners

String



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Agenda

- ① Introduction to String
- ② Immutable class
- ③ String is special
- ④ Creating String
- ⑤ Comparing String
- ⑥ String Class Method

Introduction to Strings

A `java.lang.String` class is final which implies no class can extend it.

Immutable Class

String is an immutable class, that is,

Strings in java once created and initialized, cannot be changed on the same reference.

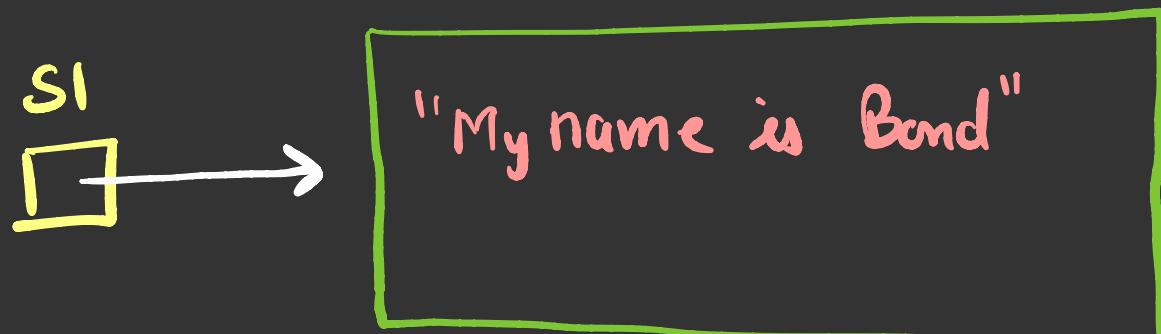
String is Special

- ① You can create String object like primitives
- ② You can use + and += operator on strings

Creating String

A simple String can be created using a string literal enclosed inside double quotes as shown

String s1 = "My name is Bond";



If two or more Strings have the same set of characters in the same sequence then they share the same reference in memory.

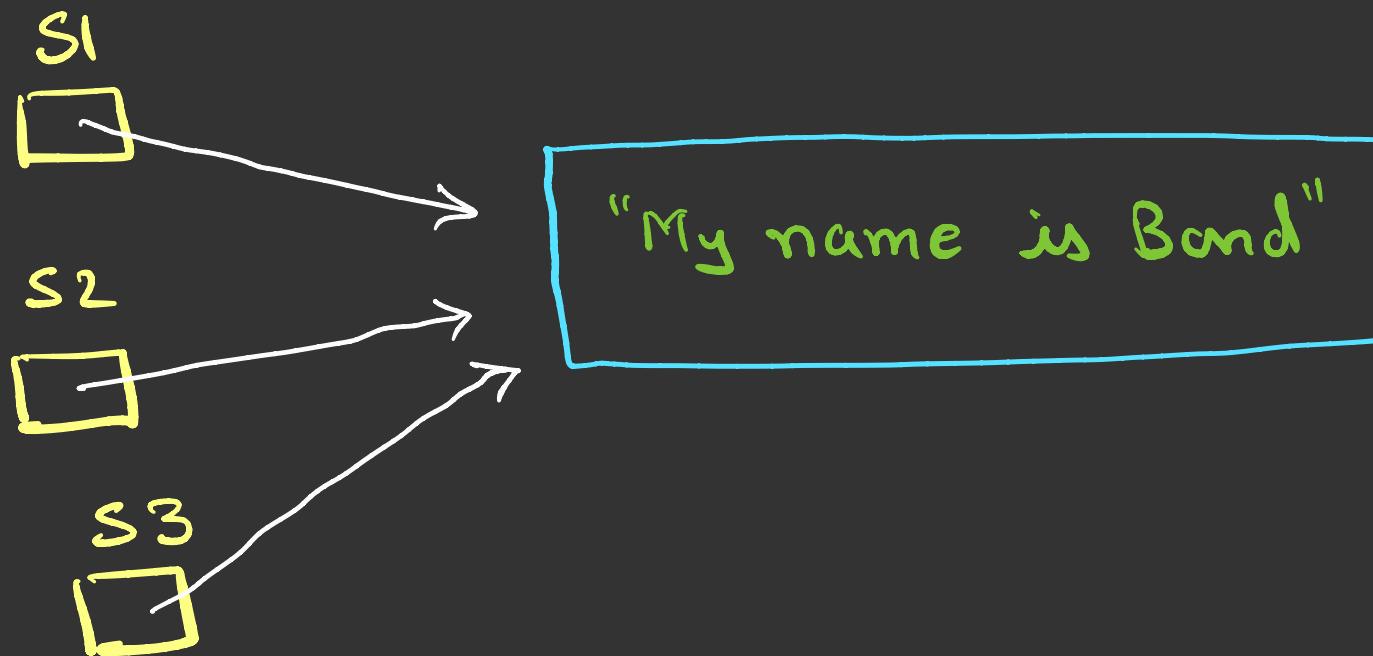
String s1 = "My name is Bond";

String s2 = "My name is Bond";

String s3 = "My name is" + "Bond";

In Memory

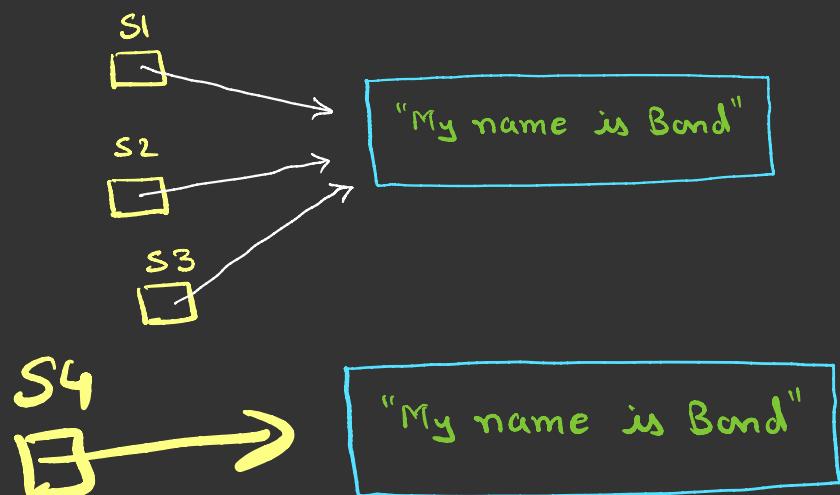
All String references s_1 , s_2 and s_3 denote the same String object.



Creating String with new keyword

String s4 = new String ("My name is Bond");

Creating String object using new keyword always generate a new object in memory, even if the strings are same.



Comparing Strings

String s1 = "computer";

String s2 = "computer";

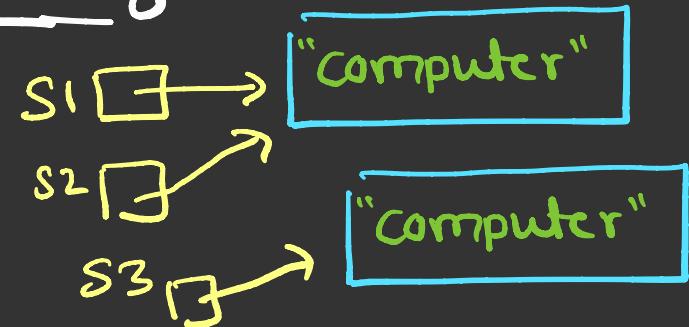
String s3 = new String("computer");

System.out.println ("Result - " + (s1 == s2)); true

System.out.println ("Result - " + s1.equals(s2)); true

System.out.println ("Result - " + (s1 == s3)); false

System.out.println ("Result - " + s1.equals(s3)); true



Useful methods of String

toUpperCase()

toLowerCase()

equals(String anotherString)

equalsIgnoreCase(String anotherString)

compareTo(String anotherString)

indexOf(int ch)

indexOf(int ch, int fromIndex)

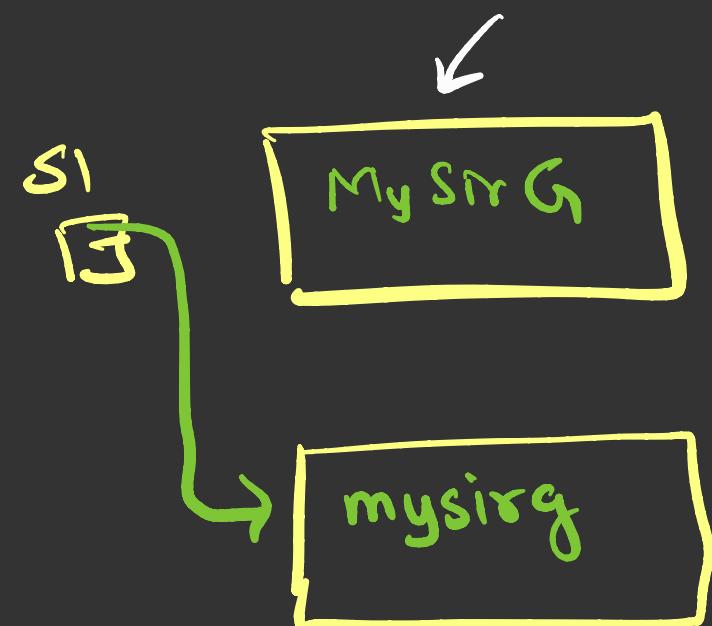
indexOf(String str)

indexOf(String str, int fromIndex)

String s1 = "MyStrG";

Garbage block

s1 = s1.toLowerCase();



`lastIndexOf(int ch)`

`lastIndexOf(int ch, int fromIndex)`

`lastIndexOf(String str)`

`lastIndexOf(String str, int fromIndex)`

`charAt(int index)`

`substring(int beginIndex)`

`substring(int beginIndex, int endIndex)`

`replace(char oldChar, char newChar)`

`trim()`

`length()`

`toString()`

`toCharArray()`