

String In Java

1.what is a string in java?

Strings, which are widely used in Java programming, are a sequence of characters. In the Java programming language, strings are objects. The Java platform provides the String class to create and manipulate strings.

2.Types of string in java are?

In java strings are classified in to two types

- 1-Mutable string
- 2-Immutable string

Mutable string

Therefore mutable strings are those strings whose content can be changed without creating a new object. StringBuffer and StringBuilder are mutable versions of String in java, whereas the java String class is immutable. Immutable objects are those objects whose contents cannot be modified once created.

Immutable string

A String is an unavoidable type of variable while writing any application program. String references are used to store various attributes like username, password, etc. In Java, String objects are immutable. Immutable simply means unmodifiable or unchangeable.

3.In how many ways can you create string objects in java?

There are two ways to create a String object:

1. By string literal : Java String literal is created by using double quotes.
For Example: String s="Welcome";
2. By new keyword : Java String is created by using a keyword "new".
For example: String s=new String("Welcome");
It creates two objects (in String pool and in heap) and one reference variable where the variable 's' will refer to the object in the heap.

4.What is a string constant pool?

The String constant pool is a special memory area. When we declare a String literal, the JVM creates the object in the pool and stores its reference on the stack. Before creating each String object in memory, the JVM performs some steps to decrease the memory overhead.

5.What do you mean by mutable and immutable objects?

In Java, mutable objects are those whose state can be changed after they have been created. This means that you can modify the values of the object's fields or properties directly, and those changes will be reflected in the object's state.

Examples of mutable objects in Java include arrays, collections like ArrayList and HashMap, and custom classes that you create.

In Java programming, immutable objects are objects that cannot be changed after they are created. Once an immutable object is created, its state cannot be modified, and any attempt to change its value will result in a new object being created. mutable and immutable objects in java, Examples of immutable objects in Java include String, Integer, and Double.

6.Where exactly is the string constant pool located in the memory?

The Java string constant pool is an area in heap memory where Java stores literal string values. The heap is an area of memory used for run-time operations. When a new variable is created and given a value, Java checks to see if that exact value exists in the pool.