

Assignment question2

Q1) what is a string in java?

Ans:A Java string is a sequence of characters that exists as an object of the class java. lang. Java strings are created and manipulated through the string class. Once created, a string is immutable -- its value cannot be changed. A string is sequence of characters.

Q2) Types of String in java?

Ans: There are two types of character sequence classes in Java. The immutable class which is the String class, and the mutable class which is StringBuilder and StringBuffer. StringBuilder and StringBuffer have some differences.

- StringBuffer is thread-safe and synchronized. That means no two threads can simultaneously access methods of string buffer.
- StringBuilder is non-synchronized and is not thread-safe. That means two threads can simultaneously access methods of string buffer.
- When it comes to efficiency, StringBuilder is more efficient than StringBuffer

Q3)How many ways a String can be created in java?

Ans: 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.

Q4)what is string constant pool in java?

Ans:In Java, the String Constant Pool (SCP) is a special memory area within the heap memory that stores String literals.

Q5)Mutable and Immutable Objects in java ?

Ans :The mutable objects can be changed to any value or state without adding a new object. Whereas, the immutable objects can not be changed to its value or state once it is created

Q6)where exactly is the string constant pool located in memory in java?

Ans : the Java String Pool is stored in the Heap space, which is garbage collected by the JVM.