03 Feb'23 String In Java Assignment - 11

1. What is a String in Java?
Ans: 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.

In Java, a string is a sequence of characters. For example, "hello" is a string containing a sequence of characters 'h' , 'e' , 'l' , 'l' , and 'o' . We use double quotes to represent a string in Java.

2. Types of String in Java are?
Ans: There are two types of Strings in Java: Immutable String(**Non-changeable**) and Mutable String(**Changeable**)
1. **Immutable String Example**: String
2. **Mutable String Example:** StringBuffer and StringBuilder

3. In how many ways can you create string objects in Java? Ans: **String**, **StringBuffer** and **StringBuilder** classes implement it. It means, we can create strings in Java by using these three classes. The Java String is immutable which means it cannot be changed.

There are two ways to create a **String object**: **By string literal** : **Java String literal** is created by using **double quotes**.
For Example: String s=**"Welcome"**;
By **new** keyword : Java String is created by using a keyword **"new".**

4. What is a string constant pool?
Ans: 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?
Ans: In java Strings are classified into 2 types
1. Mutable String

2. Immutable String

Once if we create a String, on that String if we try to perform any operation and if those changes get reflected in the same object then Such Strings are called "**Mutable String**".
Example: **StringBuffer**, **StringBuilder**

Once if we create a String, on that String if we try to perform any operation then those changes won't be reflected in the same object, rather a new object will be created/Such type of String is called as "**Immutable String**".
Example: String

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