

Assignment :- 1

Q.1. What is string in Java?

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String is a sequence of character. But in Java, string is an object that represents a sequence of character. The java.lang.String class is used to create a string object.

Q.2. Types of string are

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In Java string are classified into 2 types.

- Mutable string
- Immutable string.

Q.3. In how many ways can you create string object in Java?

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There are two ways to create string objects in Java. One is using a new operator and another one is using string literals. The object created using the new operator are stored in the heap memory and object created using string literals are stored in the string constant pool.

String s1 = new String("abc"); // creating string object using new operator

String s2 = "abc"; // creating string object using string literal

4. what is a String Constant Pool?

⇒ String objects are the most commonly used data objects in Java. Hence, Java has a special arrangement to store the string objects. String Constant Pool is one such arrangement. String Constant Pool is the heap memory space dedicated to storing string objects created with string literals. In the String Constant Pool, there will be no two string objects with the same content.

When you see a string literal to create a string objects, JVM first checks the object's content. If there is an object, JVM first checks the object's content. Then returns the reference to that object. It doesn't create a new object whenever is generated.

5. what do you mean by "mutable" and "Immutable" objects?

⇒ Immutable objects are like Constant. You can't modify them once they are created. They are final in nature, whereas mutable objects are concerned. you can perform modification on them.

Q.6 where are exactly is the String Constant Pool located in the memory.

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Inside the heap memory, JVM reserve some part of the heap

memory to store string objects created using string literals in Java. String are special. String types receive special treatment in Java that other types do not. For example, to create the string object, you do need to use the "new" keyword whereas to create special attention in Java, because the string are used to almost everywhere while developing any kind of application.