Question :- 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.

Question :- Types of string in java are?

Types of strings in Java
Primitive strings. These are string literals or string calls from a nonconstructor context. A constructor is a special method used to initialize objects. ...
Object strings. These are strings created using the new operator. Object strings create two objects, whereas primitives create just one.

Question :- in how many ways can you create String object in java?

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".

What is a String constant pool?

A string constant pool is a separate place in the heap memory where the values of all the strings which are defined in the program are stored. When we declare a string, an object of type String is created in the stack, while an instance with the value of the string is created in the heap.

Question :- What do you mean by immutabe and mutable object?

eful in situations where you need to modify the state of an object frequently, such as in a loop or when dealing with collections. Examples of mutable objects in Java include arrays, strings, and collections like ArrayList and HashMap.

On the other hand, immutable objects are useful in situations where you need to ensure that the state of an object remains constant, such as in multi-threaded environments where thread safety is important. Examples of immutable objects in Java include wrapper classes like Integer and Boolean, as well as String objects.

One of the key benefits of immutable objects is that they are inherently thread-safe, since their state cannot be changed after they are created. This can help prevent synchronization issues and race conditions in multi-threaded environments.

In summary, understanding the difference between mutable and immutable objects in Java is important for writing efficient and safe code. By choosing the right type of object for a given situation, you can help ensure that your coding is correct, efficient, and easy to maintain.

What are Mutable Objects and Why Are They Important in Java?
What are Mutable Objects and Why Are They Important in Java

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

Question :- Where exactly is the string located in the memory?

Strings are stored on the heap area in a separate memory location known as String Constant pool. String constant pool: It is a separate block of memory where all the String variables are held.

When you store a String as

String str1 = "Hello";
directly, then JVM creates a String object with the given value in a String constant pool.