String Class - Java

The java.lang.String class is used to create a string object.
The Java String is immutable which means it cannot be changed. Whenever we change any string, a new instance is created.
For mutable strings, we can use StringBuffer and StringBuilder classes.

There are 2 ways of creating string object
1. By string literal
2. By new keyword

1. String Literal:

Java String literal is created by using doublequotes
ex:
String s1="Hello"

Each time a string literal created, the JVM checks the "string constant pool" first. If the string already exists in the po ol, a reference to the pooled instance is retured.
If the string doesn't exist in the pool, a new string instance is created and placed in the pool.

ex:
String s1="Hello";
String s2="Hello"; //It doesn't create a new instance

String s1 is created as a new instance as there is no "Hello" string in string constant pool. Later s2 doesn't create new instance as "Hello" is already present in the pool so it stores s1 reference in s2.

String literal concept makes java memory efficient.

2. By new Keyword:

ex: String s= new String("Hello");

In above case, JVM will create an object in heap memory, the String literal "Hello" will be placed in string constant pool. The variable s will refer to the object in heap memory.