JAVA

Class 36

Agenda

String vs StringBuffer vs StringBuilder

String

String objects are immutable.

Immutable means unmodifiable or unchangeable.

Once string object is created its data or state can't be changed but a new string object is created.

StringBuffer

Java StringBuffer class is used to create mutable (modifiable) string.

The StringBuffer class in java is same as String class except it is mutable i.e. it can be changed.

The StringBuffer is a class that used when there is a necessity to make a lot of modifications to Strings of characters.

A string that can be modified or changed is known as mutable string. StringBuffer and StringBuilder classes are used for creating mutable string.

StringBuffer

Syntax:

StringBuffer <objectVariable> = new StringBuffer(String_value)

```
class Test {
 public static void main(String args[]) {

  String str = "study";
  str.concat("tonight");
  System.out.println(str);      // Output: study

  StringBuffer strB = new StringBuffer("study");
  strB.append("tonight");
  System.out.println(strB);    // Output: studytonight
 }
}
```

String vs StringBuffer

String	StringBuffer
String class is immutable.	StringBuffer class is mutable.
String is slow and consumes more memory when you concat too many strings because every time it creates new instance.	StringBuffer is fast and consumes less memory when you concat strings.

StringBuffer & StringBuilder

Java StringBuffer class is used to create mutable (modifiable) string.	Java StringBuilder class is used to create mutable (modifiable) string.
The StringBuffer class in java is same as String class except it is mutable i.e. it can be changed.	The Java StringBuilder class is same as StringBuffer class except that it is non-synchronized

StringBuffer   vs   StringBuilder

StringBuffer is synchronized i.e. thread safe. It means two threads can't call the methods of StringBuffer simultaneously. StringBuilder is non-synchronized i.e. not thread safe. It means two threads can call the methods of StringBuilder simultaneously.	StringBuffer is synchronized i.e. thread safe. It means two threads can't call the methods of StringBuffer simultaneously. StringBuilder is non-synchronized i.e. not thread safe. It means two threads can call the methods of StringBuilder simultaneously.
StringBuffer is less efficient than StringBuilder.	StringBuilder is *more efficient* than StringBuffer.

Task

1. How would you reverse a String?
    String str="Sunday"

- Using reverse function
- Without using reverse function