

The **StringBuilder** in Java represents a mutable sequence of characters. Since the String Class in Java creates an immutable sequence of characters, the StringBuilder class provides an alternative to String Class, as it creates a mutable sequence of characters. The function of StringBuilder is very much similar to the StringBuffer class, as both of them provide an alternative to String Class by making a mutable sequence of characters. However the StringBuilder class differs from the StringBuffer class on the basis of synchronization. The StringBuilder class provides no guarantee of synchronization whereas the StringBuffer class does. Therefore this class is designed for use as a drop-in replacement for StringBuffer in places where the StringBuffer was being used by a single thread (as is generally the case). Where possible, it is recommended that this class be used in preference to StringBuffer as it will be faster under most implementations. Instances of StringBuilder are not safe for use by multiple threads. If such synchronization is required then it is recommended that StringBuffer be used.

Class Hierarchy:

```
java.lang.Object
└─ java.lang
    └─ Class StringBuilder
```

Syntax:

```
public final class StringBuilder
    extends Object
    implements Serializable, CharSequence
```

Constructors in Java StringBuilder:

- **StringBuilder():** Constructs a string builder with no characters in it and an initial capacity of 16 characters.
- **StringBuilder(int capacity):** Constructs a string builder with no characters in it and an initial capacity specified by the capacity argument.
- **StringBuilder(CharSequence seq):** Constructs a string builder that contains the same characters as the specified CharSequence.
- **StringBuilder(String str):** Constructs a string builder initialized to the contents of the specified string.