

A very powerful String class. StringBuffer ADT a model for StringBuffer class.
(mutable String class which is built as an ArrayList of chars)



The StringBuffer ADT

```
StringBuffer stringBuf = new StringBuffer();

stringBuf.append("abc");
    // stringBuf now contains "abc"
stringBuf.append(123);
    // stringBuf now contains "abc123"

stringBuf = new StringBuffer("TH8"); stinky effect
stringBuf.insert(2, "X");
    // stringBuf now contains "THX8"
stringBuf.insert(3, 113);
    // stringBuf now contains "THX1138"
char ch = stringBuf.charAt(2); // ch is 'X'
stringBuf.setCharAt(2, 'a');
    // stringBuf now contains "THa1138"
```

`System.out.println("ab" + 2 + 2);`
Output: ab22

pseudo random

loop for project



The BitSet ADT

- A bit set requires much less memory than an array or vector of boolean values, because each element is stored as a single bit. A bit set will automatically increase its size as needed.

```
BitSet multiplesOf2 = new BitSet(16);
```

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- The set method changes a single bit to true:

```
multiplesOf2.set(2);
```

- The clear method “clears” a bit by setting it to false:

```
multiplesOf2.clear(2);
```

- The get method returns a boolean value regarding whether a specific bit position is set:

```
if (multiplesOf2.get(2)) ...
```