



THE C++ STRING CLASS

```
#include <string>
```



INTRODUCTION TO THE C++ STRING CLASS

- The C++ `string` class is *similar* to the Java `String` class
 - Class name begins with a lower case `s`
 - Must `#include <string>`
 - Supports more operators
- The `string` class is related to C-strings
 - Supports operators (C-strings do NOT support operators)
 - Manages its own memory
 - Can convert to and from C-string



STRING CONSTRUCTORS

Prototype	Example	Comments
<code>string();</code>	<code>string s1;</code>	Default constructor
<code>string(const char* s);</code>	<code>string s1("Hello");</code>	Conversion constructor
<code>string(const string& s);</code>	<code>string s2(s1);</code>	Copy constructor

STRING OPERATORS

Operator	Meaning	Example
=	Assignment	<code>s1 = s2</code>
+	Concatenation	<code>s = s1 + s2;</code>
+=	Concatenation with assignment	<code>s += s2;</code>
==	Equality	<code>if (s1 == s2) . . .</code>
!=	Inequality	<code>if (s1 != s2) . . .</code>
<, <=, >, and >=	Relational	<code>if (s1 < s2) . . .</code>
[] and at ()	Character access	<code>char c = s1[i];</code> <code>char c = s1.at(i);</code>
<<	Output	<code>cout << s2;</code>