

C++ String class

Classes are like types that

- the programmer designs
- can be more complex than the simple type.

Think about the type `bool`, that comes with its own operators `&&`, `!`, `||`
↖ functions

In the world of classes, the special-purpose functions are called methods.

Each instance, call it `x`, of a class, has the class methods associated with it

```
x.inc(); // These don't make  
x.print(); // much sense to us  
x.add(4); // now - we will study  
// objects later.
```

```
#include <string> // gives you the library
// of functions (methods)
// that are associated with
// strings
```

```
String s1; // we can declare an instance
// of the object string
```

```
String s2;
```

```
s1 = "hello!";
```

```
cout << s1;
```

```
cin >> s1; // maybe user entered "Ha!"
```

```
s2 = s1;
```

```
s1 = "goodbye.";
```

```
int x = s1.length(); // assigns 8 to x
// (does not include a
// null-terminator)
```

```
cout << s1[3]; // what is printed to screen?
```

```
s1 = "You" + " are funny.";
```

'+' is an overloaded operator.

On strings, + means 'concat'.

String comparisons

We can use == < > <= etc.

The comparisons are based on the ascii table

"a" < "aa"

"aab" < "ab"