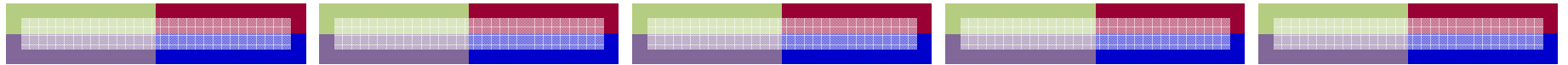


CS101

Problem Solving and Object-Oriented Programming

L21: Strings



Strings

- A sequence of characters:
 - “I’m touched”, “Lisa” // string literals enclosed in “”
 - Character literal uses ‘’: ‘L’
 - Recall: `new Text(“I’m touched”, x, y, canvas);`
- Let `counter = 5;`
 - `System.out.println(“Loop iterations: “ + counter);`
 - Loop iterations: 5





Strings


• Declaration

- String Name;

• Initialization

- Name = "Lisa";
- String Name = "Lisa";
 - Causes a string object with the value "Lisa" to be created and assigned to Name
- There are also 11 string constructors, that can be used to initialize a string


• What if I want to add the 1st initial of my last name?

- Name = Name + " B"; // Name is now "Lisa B"
- 



Classes and Primitive Types

	Primitive Types	Classes
Examples	int, double, boolean	FilledRect, Flower
Values	1, 2.5, false	new FilledRect(...);
Operations	x+y, a&&b	rect.setColor(...);
Comparison	x == y	rect1.equals(rect2);





Strings

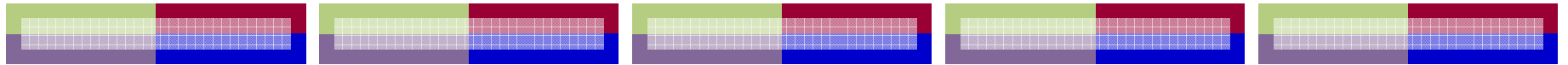
	Primitive Types	Classes
Values	“Lisa”	<code>new String(...);</code>
Operations	<code>x+y</code>	<code>str.charAt(0)</code>
Comparison		<code>str1.equals(str2)</code>

Note: `str1 == str2` compiles, but might not always do what you want!

Tests whether `str1` and `str2` refer to the same object.

So avoid `==` with strings!





Strings and Characters

- Getting a character at a particular location in a string

```
String name = "Lisa B";
```

```
char firstChar = name.charAt(0); // firstChar => 'L'
```

```
int len = name.length(); // len contains the string's length
```

```
char lastChar = name.charAt(len-1); // lastChar => 'B'
```

