Something new: String class odds & ends

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Java

String Details: Constructing Strings

you don't have to use *new*

// formal way to construct a String object

String a = new String("happy");

// but this literal method works also

String b = "ice cream";

String Details: Strings are Immutable!

Every time you use String var, a new String object is made:

```
// makes and stores a String object in RAM
String c = new String("happy");
// makes and stores another String object in RAM
String d = "ice cream";
// makes and stores another String object in RAM
d = "bananas";
```

String Details: Convert an int to a String...

```
int e = 27;
// f is the String "27"
String f = ""+e;
// note the above uses the String concatenate operator
// as a review
String g = "I love ";
String h = "pizza"
System.out.println(g+h);
// the above line outputs I love pizza
```

String Details: Escape Sequences

```
// \n is called an escape sequence which inserts a new
// line into the string
// for example:
String j = "I like \n happy face pancakes!";
System.out.println(j);
```

output:
I like
happy face pancakes!

String Details: Escape Sequences

// \t is called an escape sequence which inserts a tab
into the string
// for example:
String j = "I like \t happy face pancakes!";
System.out.println(j);

output:
I like   happy face pancakes!

String Details: Escape Sequences

// \" is called an escape sequence which inserts a " character into the string
// for example:
String j = "I like \" happy face pancakes!";
System.out.println(j);

output:
I like " happy face pancakes!

String Details: Escape Sequences

// \\ is called an escape sequence which inserts a \
character into the string
// for example:
String j = "I like \\ happy face pancakes!";
System.out.println(j);

output:
I like \ happy face pancakes!

Lab

- This is the start of a sequence of labs that will lead to making a typing game
- In this lab
  - ask the user for a single character (store it in a String variable)
  - make a Car object that travels slowly across the screen
  - every step the Car takes, the entered String should be written out to the screen
  - note the String may not be readable