Let's look at solutions to the interclass problem.

- Printing the length of a string that the user input.
- Posting Java code from class.

Recap of last class

- Every class is a new type.
- These are called reference types.
- Variables of reference types can refer to objects. If they don't they are null.
- We make objects with new.
- We call methods using the dot notation.
In Java we will break up our code using methods just like we did in Alice.

The benefits are the same.
- Methods let us break up complex problems into easier to deal with pieces. (Problem Decomposition)
- Methods allow us to do the same things multiple times without duplicating the code.
- It is easier to manage so we typically have fewer bugs.

The structure of a method in Java as as follows:
- visibility [static] returnType methodName(arguments) {}
Alice made a strong distinction between code that does things and code that returns things.

They called code that does things methods and methods couldn't return anything. Code that returned a value was a function and functions weren't allowed to alter anything in the world.

Java does not make this distinction. We call all things methods and we can determine the return type on any of them.

If a method shouldn't return anything you give a return type of void.

If it does return something you need to include a return statement.
Let's write some methods to see how they work. We don't have much logic yet, but we can do math and play with strings some.
There is a special type of method in Java called a constructor.
A constructor has the same name as the class it is in and has no return type.
We don't call constructors directly, they are called when we use new to instantiate an object of that class.
Let's add a constructor to our BankAccount.
■ What are your plans for the weekend?