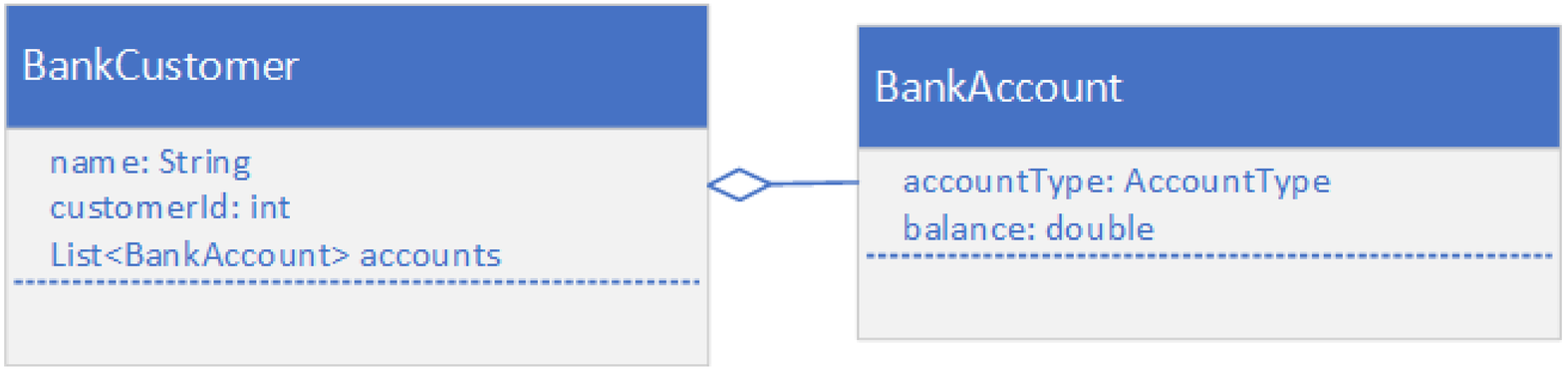
The Banking Account Application from the Immutable Class Challenge

These are the classes we'll be starting with, in this challenge.



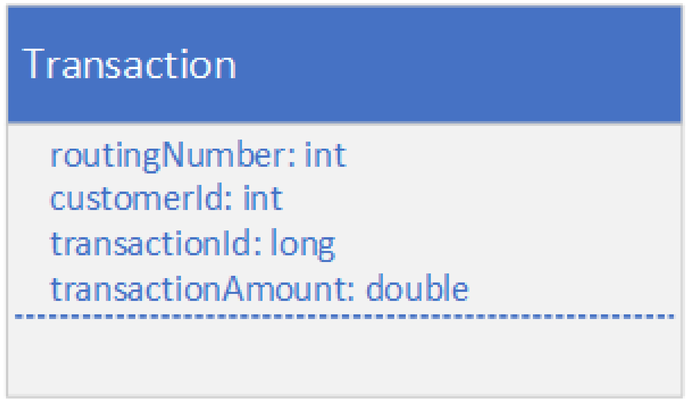
Modify the Banking Account Application from the Immutable Class Challenge

Create a **Transaction** class in a dev dto package, that might mirror a data table.

This class should have the fields shown here.

Include getters and setters for all fields.

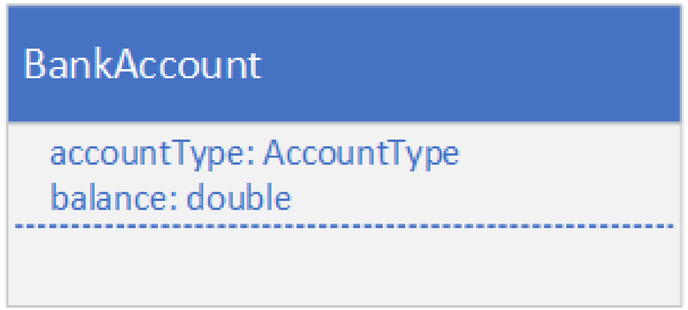
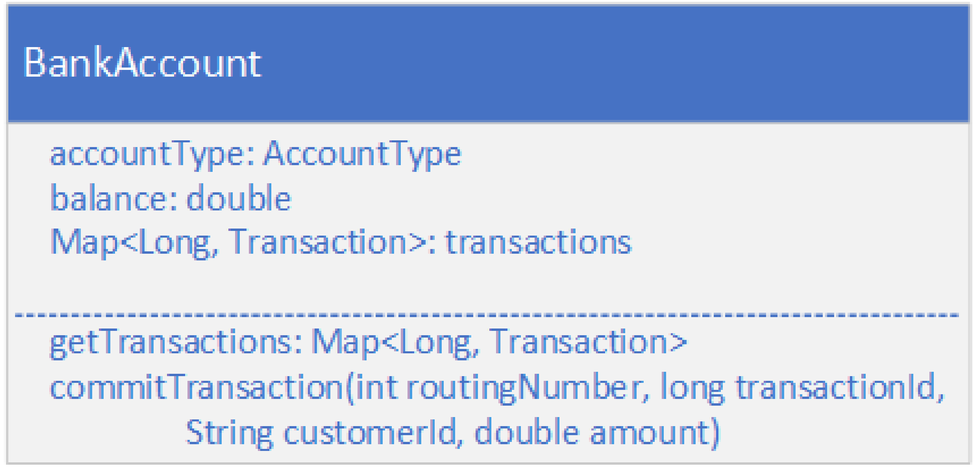
Include a constructor that takes all fields, for ease of use.



Modify the BankAccount class

For this challenge, you'll modify your **BankAccount** class.

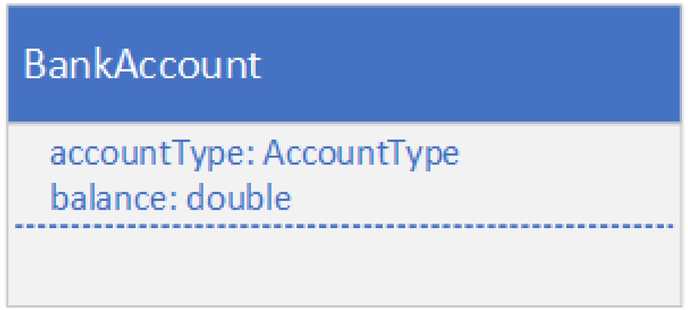
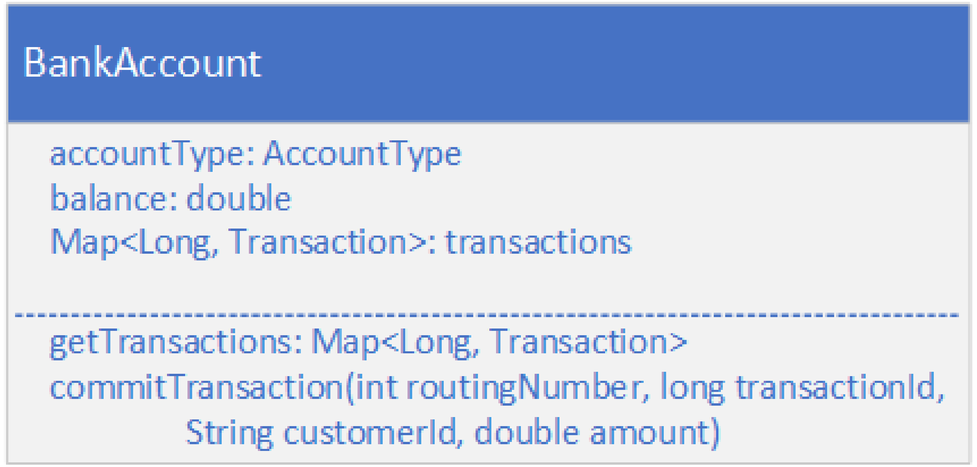
- First, you'll want to change the **balance** so that it's **mutable**.
- Include a Transaction Collection.

Current	After Modifications (An Example)
	

Modify the BankAccount class

For this challenge, you'll modify your **BankAccount** class.

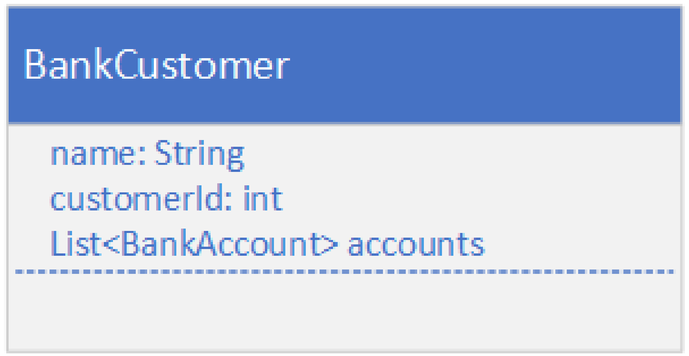
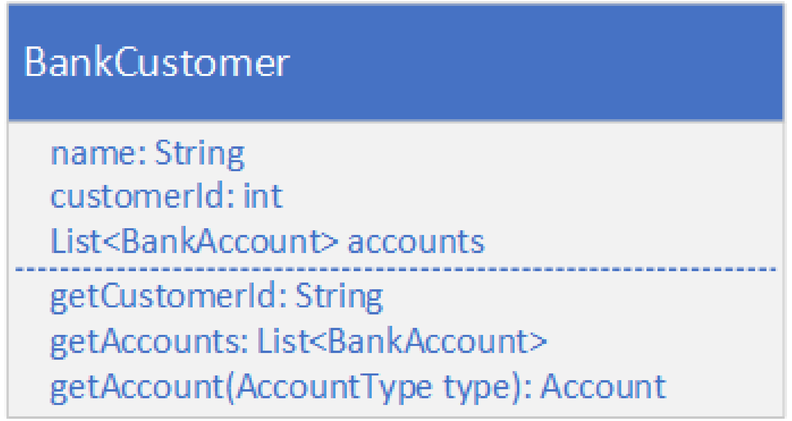
- Provide a getter, or accessor method, for the transaction data.
- Provide a method to adjust the balance, and add the transaction data to the transaction collection.

Current	**After Modifications (An Example)**
	

Modify the BankCustomer class

Modify your **BankCustomer** class.

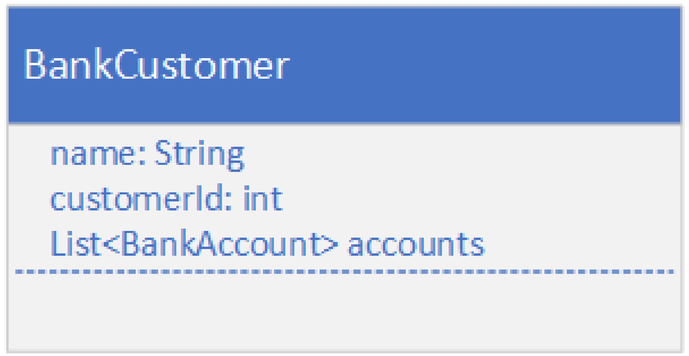
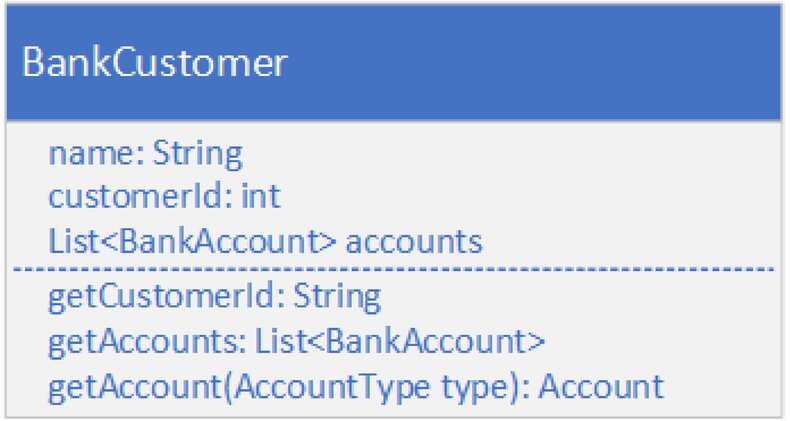
- Return the customer id as a 15 digit string, with leading zeros.
- Design this class, so that code in other packages can't instantiate a new Bank Customer.
- Return a defensive copy of the accounts, from the getAccounts method.

Current	After Modifications (An Example)
	

Modify the BankCustomer class

Modify your **BankCustomer** class.

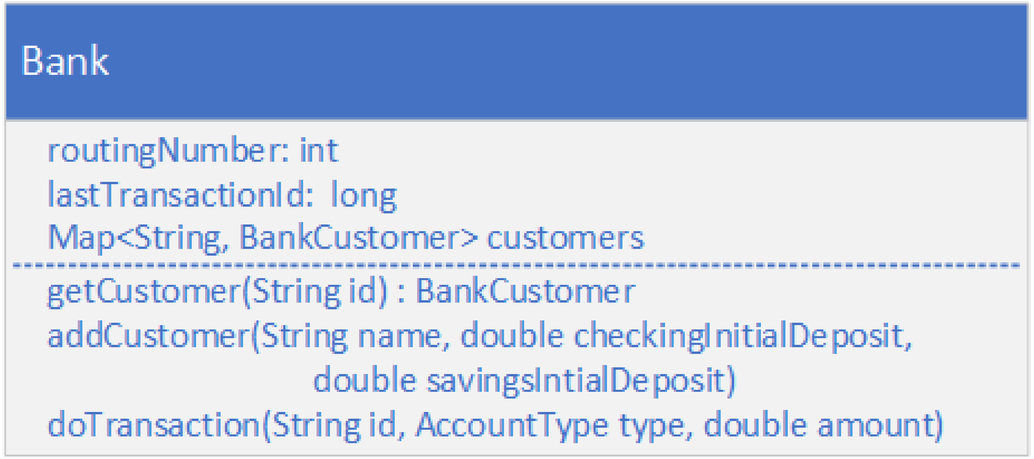
- Include a getAccount method to return just one account, based on account type, either savings or checking.
- Assume a customer will have one checking account and one savings account.

Current	After Modifications (An Example)
	

Implement a Bank

Next, you want to create a **Bank** class, that has a routing number, and a collection of customers, as well as an integer that holds the next transaction id to be assigned.

- You should be able to look up a customer by a customer id, a 15 character String.
- Transaction id's should be assigned, by using the lastTransactionId field, on this instance of the bank.
- A negative amount is a withdrawal, and a positive amount is a deposit.
- Don't let the customer's account balance go below zero.



Create and use a Bank in the Main's main method

In the Main class's main method.

- Create a bank instance, and add a customer.
- Let a client get a BankCustomer instance by a customer id, and review transactions from a single selected account. These transactions should **not be modifiable**, or susceptible to side effects.
- You should only be able to perform a withdrawal or deposit of funds, through the Bank Instance, passing the customer id as a String, the type of account this transaction will be against, and the amount. In other words, the main method should not have access to the commit transaction code on the Bank Account itself.

The Class Diagram (as I'll be coding it)

You might want to leave this diagram up as you're coding your own solution, to help you see the big picture.