Lab 6a

CSC-121, Fall 2025

Individual Exercises

1. CodePath Mid-Semester Survey

How do you feel that the semester has been going so far? Please let us know in the mid-semester survey. This will help the teaching staff by providing feedback on what we could do to make the course better.

Survey Link: https://www.surveymonkey.com/r/cir-fall25-mc
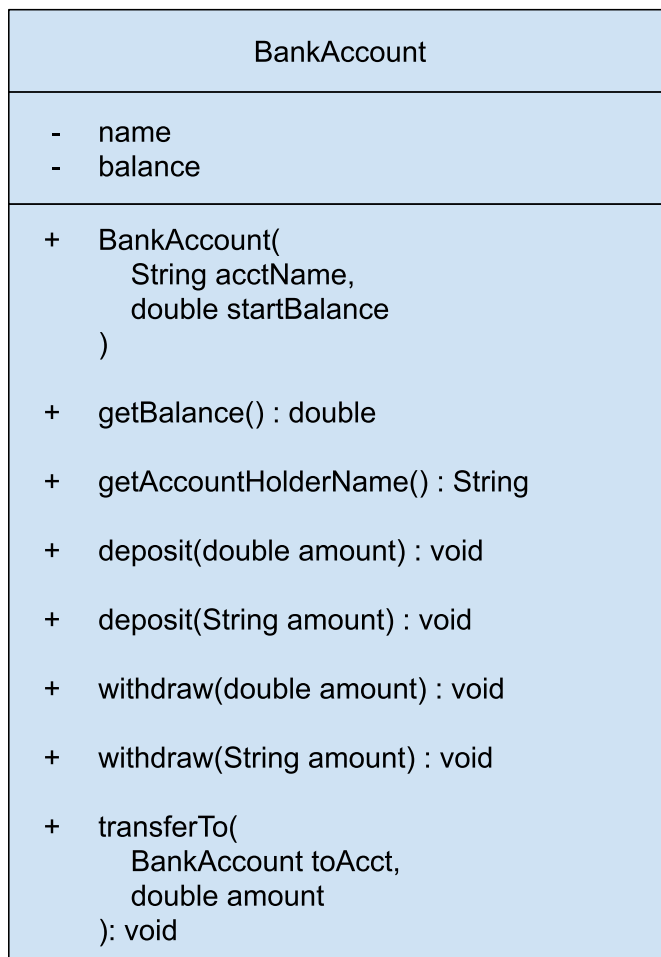
2. Project Check-In

Have you started your Project **#3**, yet? ***Don't wait until the last minute!*** You should present your plan to one of the Tech Fellows and get feedback. Remember, part of your grade is based on doing the check-in.

Partner Exercises

Bank Account

Remember how we talked about representing bank accounts as classes, with methods to deposit and withdraw money? Today, you are going to write it!

Here is the UML diagram of the bank account class:

BankAccount
-   name -   balance

+   BankAccount(
        String acctName,
        double startBalance
)
 	
+   getBalance() : double
 	
+   getAccountHolderName() : String
 	
+   deposit(double amount) : void
 	
+   deposit(String amount) : void
 	
+   withdraw(double amount) : void
 	
+   withdraw(String amount) : void
 	
+   transferTo(
        BankAccount toAcct,
        double amount
    ): void

The members with a + are public fields, and the members with - are private fields.

Let's start by making the basic class structure.

```
public class BankAccount {
}
```

Without any member fields, it's a pretty boring class. Let's add in our variable fields.

```
public class BankAccount {
      private String name;
      private double balance;
}
```

Next, let's add a constructor. This will be called whenever a new bank account is created with the "new" keyword.

```
public class BankAccount {
      private String name;
      private double balance;

      BankAccount(String acctName, double startingBalance)
      {
            // Fill in code here to set our name and balance fields.
      }
}
```

Now it's your turn! Create the rest of the methods in the UML diagram. Then, create a few BankAccount objects in your main method and try depositing funds, withdrawing funds, and transferring funds between them. Feel free to ask questions if you get stuck.