Requirements

The focal points of this project is the withdrawal, the deposit, and the transfer operations.

Each of these operations has their own business logic for calculating banking fees for the given operation.

The business logic specification for calculating the fees for each of the given operations are provided:

**Withdrawal**

* If the client is a student and…

o If the transaction is performed during the weekend, then there is no fee

o Otherwise, the fee is 0.1% of the amount withdrawn

* If the client is not a student and…

o If the balance of the account is less than $1,000, then the fee is 0.2% of the amount withdrawn.

o If, however, the balance is $1,000, or more, but less than $10,000, the fee is 0.1% of the amount withdrawn.

o If the balance is more than $10,000, then there is no fee

**Deposit**

* If the client is a student and…

o If the amount withdrawn is more than $100 and…

* + If the balance of the account is more than $1,000, then the fee is 1% of the amount withdrawn.
  + Otherwise, the fee is 0.5% of the amount withdrawn

o If, however, the amount withdrawn is $100 or less and…

* + If the balance of the account is more than $5,000, then the fee is 0.5% of the amount withdrawn.
  + Otherwise, there is no fee.
* If the client is not a student and…

o If the amount withdrawn is more than $500 and…

* + If the balance of the account is more than $5,000, then the fee is 1% of the amount withdrawn.
  + Otherwise, the fee is 0.5% of the amount withdrawn.

o If, however, the amount withdrawn is $500 or less and…

* + If the balance of the account is more than $10,000, then the fee is 0.5% of the amount withdrawn.
  + Otherwise, there is no fee

**Transfer**

* If the client is a student and…

o If the amount withdrawn is less than $100 and…

* + If the balance of the account the money is coming from is less than $1,000 and…
    - If the balance of the account the money is going to is less than $1,000, then the fee is 0.1% of the amount withdrawn.
    - Otherwise, the fee is 0.05% of the amount withdrawn
  + If, however, the balance of the account the money is coming from is $1,000, or more and…
    - If the balance of the account the money is going to is less than $1,000, then the fee is 0.5% of the amount withdrawn.
    - Otherwise, the fee is 0.25% of the amount withdrawn.

o If the amount withdrawn is $100, or more, and…

* + If the balance of the account the money is coming from is less than $1,000 and…
    - If the balance of the account the money is going to is less than $1,000, then the fee is 0.05% of the amount withdrawn.
    - Otherwise, the fee is 0.025% of the amount withdrawn.
  + If, however, the balance of the account the money is coming from is $1,000, or more and…
    - If the balance of the account the money is going to is less than $1,000, then the fee is 0.25% of the amount withdrawn
    - Otherwise, the fee is 0.125% of the amount withdrawn.
  + If the client is a not student and…

o If the amount withdrawn is less than $100 and…

* + - If the balance of the account the money is coming from is less than $1,000 and…
      * If the balance of the account the money is going to is less than $1,000, then the fee is 0.2% of the amount withdrawn.
      * Otherwise, the fee is 0.1% of the amount withdrawn.
    - If, however, the balance of the account the money is coming from is $1,000, or more and…
      * If the balance of the account the money is going to is less than $1,000, then the fee is 1% of the amount withdrawn.
      * Otherwise, the fee is 0.5% of the amount withdrawn.

o If the amount withdrawn is $100, or more, and…

* + - If the balance of the account the money is coming from is less than $1,000 and…
      * If the balance of the account the money is going to is less than $1,000, then the fee is 0.1% of the amount withdrawn.
      * Otherwise, the fee is 0.05% of the amount withdrawn.
    - If, however, the balance of the account the money is coming from is $1,000, or more and…
      * If the balance of the account the money is going to is less than $1,000, then the fee is 0.5% of the amount withdrawn.
      * Otherwise, the fee is 0.25% of the amount withdrawn

**2. Problem to be solved:**

Perform White box testing on the following classes:

1. **Bank.FeesCalculator.java:** The focus here is to check for the correct calculation of fees while performing withdrawal, deposit, and transfer.

* For withdrawal: [select best control flow strategy by yourself]
* For deposit: Apply branch coverage. Follow whole procedure that is taught in class.
* For transfer: Apply branch coverage. Follow whole procedure that is taught in class.