

Course Number	CSci 120
Descriptive Title	Object-oriented Programming
Programming Language	Java

Problem Set Number	6
Problem Number	2
Activity Title	Use a Heterogeneous Collection of Customer Accounts

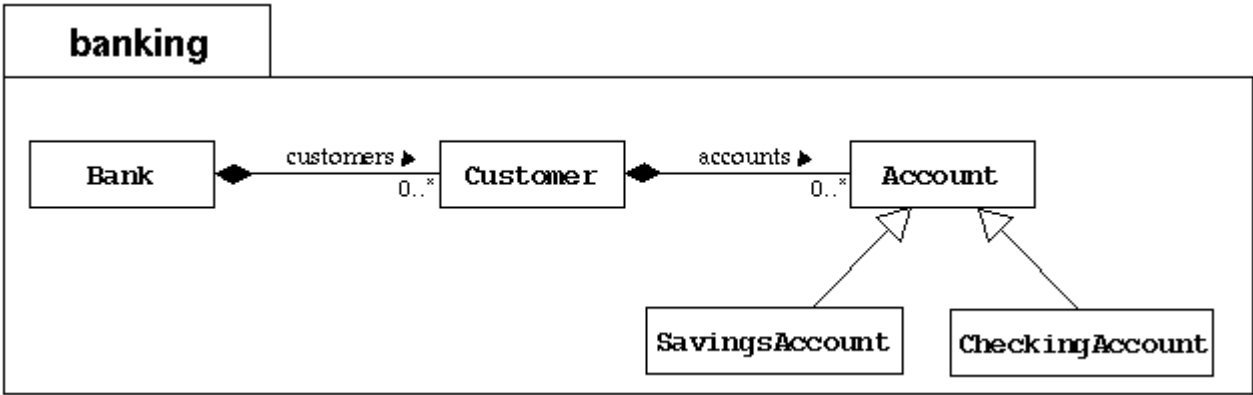
Objective

In this exercise you will create a heterogeneous array to represent the aggregation of customers to accounts. That is, a given customer may have several accounts of different types.

Directions

Start by changing your working directory to Problem Set 6/Problem 2 on your computer.

Modify the Customer Class



- 1. Create the `banking` directory. Copy the previous Banking project files in this package directory.
- 2. Modify the `Customer` class to handle the accounts association with generic multiplicity; just as you did in Problem 2 of Problem Set 5. It must include the public methods: `addAccount(Account)`, `getAccount(int)`, and `getNumOfAccounts()`.

Complete the TestBanking Program

This program creates a set of customers and accounts and generates a report of customers and their account balances. In the `TestBanking.java` file you will find comment blocks that start and end with `/** ... */`. These comments indicate the location in the code that you must supply.

- 1. Use the `instanceof` operator to test what type of account we have and set `account_type` to an appropriate value, such as "Savings Account" or "Checking Account".
- 2. Print out the type of account and the balance. Feel free to use the `currency_format` formatter to generate a "currency string" for the balance.
- 3. Compile and run this program. You should see the following output.

```
CUSTOMERS REPORT
=====
Customer: Simms, Jane
Savings Account: current balance is 500.00
Checking Account: current balance is 200.00

Customer: Bryant, Owen
Checking Account: current balance is 200.00

Customer: Soley, Tim
Savings Account: current balance is 1,500.00
Checking Account: current balance is 200.00

Customer: Soley, Maria
Checking Account: current balance is 200.00
Savings Account: current balance is 150.00
```