

This document maps requirements to the delivered program

	Requirement	Program
1	Client class with at least 2 other classes, plus 1 sub class.	Client class - BankDemo.java; sub class - Account.java. There are 3 other classes - Customer.java, CheckingAccount.java, SavingsAccount.java. CheckingAccount.java and SavingsAccount.java are superclass to Account.java.
2.	Declare and use at least 1 constructor and 3 instance variables per class, plus 1 public static variable.	All classes use at least 3 instance variables and at least 1 constructor. Static variable is MinimumBalance that is defined in CheckingAccount. This is the minimum balance that is required to be maintained in the account.
3	Use composition in one of the classes.	Customer class uses 2 attributes that are composition in nature - CheckingAccount and SavingsAccount.
4.	Define get and set methods for each instance variable in each class. Define appropriate toString methods for each class (except the client class.)	Appropriate Get and Set methods are defined for each of the classes. Instead of "toString" methods, printTransactions method is used to print transactions by returning a string output.
5.	In addition, define and appropriately use at least one static method and one other regular method.	Static method is the getNextID() method that is defined in all 4 classes (customer, account, CheckingAccount, SavingsAccount). This gets a random number used as an account number. There are a lot of regular methods defined in class.
6.	Define a method that overrides a method of its superclass .	Methods defined in Account class (Deposit, withdraw, getBalance, printtransactions, getNextID) gets overridden in superclass.
7	Client keeps running in a loop until the user decides to end the program.	Main menu containing 6 options is always active and runs in a loop. The user needs to enter option 6 to quit the program.
8	Client asks the user for input, and prints out output based on object data (not based on data stored in the client's variables)	All data is obtained through user input and not stored in client variables.
9	Generate and use some data necessary to the system using a random number generator.	getNextID method generates a random number that is used as account number for customer and checking and savings account.

	Requirement	Program
10	Declare and appropriately use at least one array or ArrayList.	Transactions variable is an arraylist and stores transactions of opening an account, deposit and withdrawal. Print transactions goes through this arraylist and prints the elements.
11	ALL input/output occurs in the client class. NO input/output occurs in the other classes	Inputs/outputs are only in client class. There is no input/output in other classes.
12	Program runs correctly. System adequately performs its expected tasks.	Program was tested and output was documented. Testing was done both for normal scenarios and exception scenarios.
13	Meet the code header and documentation requirements, including specifying predicted test input and output	Client class has the required documentation.