# CSCI-C201 Project: Smart Banking

**Introduction:** In this semester, we are going to create a banking software program that can allow users to perform basic banking operations and analyze accounts and transactions. This project will have five phases (Project 1 to Project 5). You are allowed to work in a team of 2 or 3 members.

**Project 4 (Phase 4): Transaction Analysis**

In this project (phase), you are going to complete the coding that enables users to analyze records of financial transactions.

**Problem description**:

Based on your previously completed projects, for every transaction, the following information should be stored in database (a text file).

* Account number
* Transaction type (withdraw / deposit) stored as character ‘W’ and character ‘D’
* Amount of money associated with the transaction
* Date and time of the transaction.

About transactions

* A transaction is defined as either a deposit or withdrawal.
* Add an account is NOT considered as a deposit transaction.
* Delete an account is NOT considered as a transaction.
* A transaction should be recorded in file every time a deposit or withdrawal is made.
* Your implemented program should allow user to display all transactions of all accounts or transactions of a specific account.

**Your task:**

1. Download the partially written source code (zip file), unzip it, copy the entire “**src**” folder to your IDE project folder and replace your existing “**src**” folder.
2. Your “src” folder contains eight java source code files. You only need to modify four of them.
   * bankTransaction.java. Complete three methods: deposit(), withdraw(), and recordTransaction(). The instructions written as comments can be found inside the code.
   * bankAnalysis.java. Complete method transactionAnalysis(). The instructions written as comments can be found inside the code.
   * transactionAnalysis.java. Complete four methods: constructor, loadDB(), listAllTransactions(), and listTransactions(). The instructions written as comments can be found inside the code.
   * transactionRecord.java. Complete the constructor and four other methods. The instructions written as comments can be found inside the code.
3. Download the reference executable (Project4.jar) and run it with command:

java -jar Project4.jar

1. Use reference executable to understand the requirement and help you test your program.
2. Your program must behave exactly as the reference executable.
3. If anything is not clear, please ask the instructor.

**Submission**: Only upload four files: transactionRecord.java, transactionAnalysis.java, bankAnalysis.java, and bankTransaction.java. (Please specify clearly your team members in the source code)