



American International University- Bangladesh

CSC 1205: Object Oriented Programming 1 (JAVA)

CO4 Evaluation Project Concluding Report Spring 19-20

Group ID: Cup O' Java

Project Title: Prototype Basic Banking System

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Prototype Basic Banking System

Introduction:

The project was assigned to us as a form of assignment to evaluate our implementation skills of the Java programming language and the basic ideas of object oriented programming that comes with it. The semester was cut short due to the unavoidable circumstances. This project completed hereby shows our orbit of learning along with our abilities of identifying and implementing the required ideas.

Problem Analysis:

This is a JAVA program based on the idea of banking and its management. This is a short project for a preliminary use and having an idea about how a banking system works as a whole. This application was used with basic programming concept and students who are learning OOP1 and might be reviewed by bankers to point out scopes of improvement.

UI Design Analysis:

This is a console based application. The User Interface will depend on the type of device the user is running the program on. The operations of input and output will be conducted through the console. There were no contribution in the design part of the UI by the application creators.

Logical Analysis:

This application houses two types of Account; namely: Savings Account and Current Account. Both the accounts have basic banking operations like:

- 1. Deposit:** The money will be added to the account using this method.
- 2. Withdraw:** Money will be taken out of the account through this method.
- 3. AddInterest:** This method will increase the interest every year by 3.75%
- 4. ChangeInterest:** This is a method of administrative level and is not accessible to a common user.

Our main program contains a total of 8 operations which can be used by any user or account holder. The mentioned logics are working properly at the time of completing this report.

OOP Concept Analysis:

The OOP1 principles used in this project:

- 1. Object Oriented Program:** Class and objects are used to make and run the application. Since Java is an object oriented programming language, this concept is a must to use.
- 2. Encapsulation:** General encapsulation has been used to bind the scopes of the program. Since classes and objects are used, necessary scopes were created by encapsulation.
- 3. Polymorphism:** Polymorphism has been used in the abstract class Account.
- 4. Abstraction:** Abstract class “Account” contains the abstract methods.
- 5. Inheritance:** The classes SavingsAccount and CurrentAccount inherits class “Account”.



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Impact of this Project:

If this program is used, it can help a number of people in different ways. For example, the students learning OOP1 with JAVA programming language can take help from this program to grasp the concepts which are necessary to learn JAVA and their applications. The program has been kept simple and easy to read and understand. If this application is provided for developing, it has the potential to be used for professional purposes in any bank.

Limitations and Possible Future Improvements:

Due to shortage of time the program could not be developed up to its potential. It could be more dynamic in nature. The limitations include: lack of a GUI, dedicated database, real time, weak searching algorithm. But all of the mentioned problem can be overcome with future improvements since the program can be improvised by any willing volunteer. If provided with a proper do-over, the program has a potential of official uses in the real world.

