COE528 - Project Report

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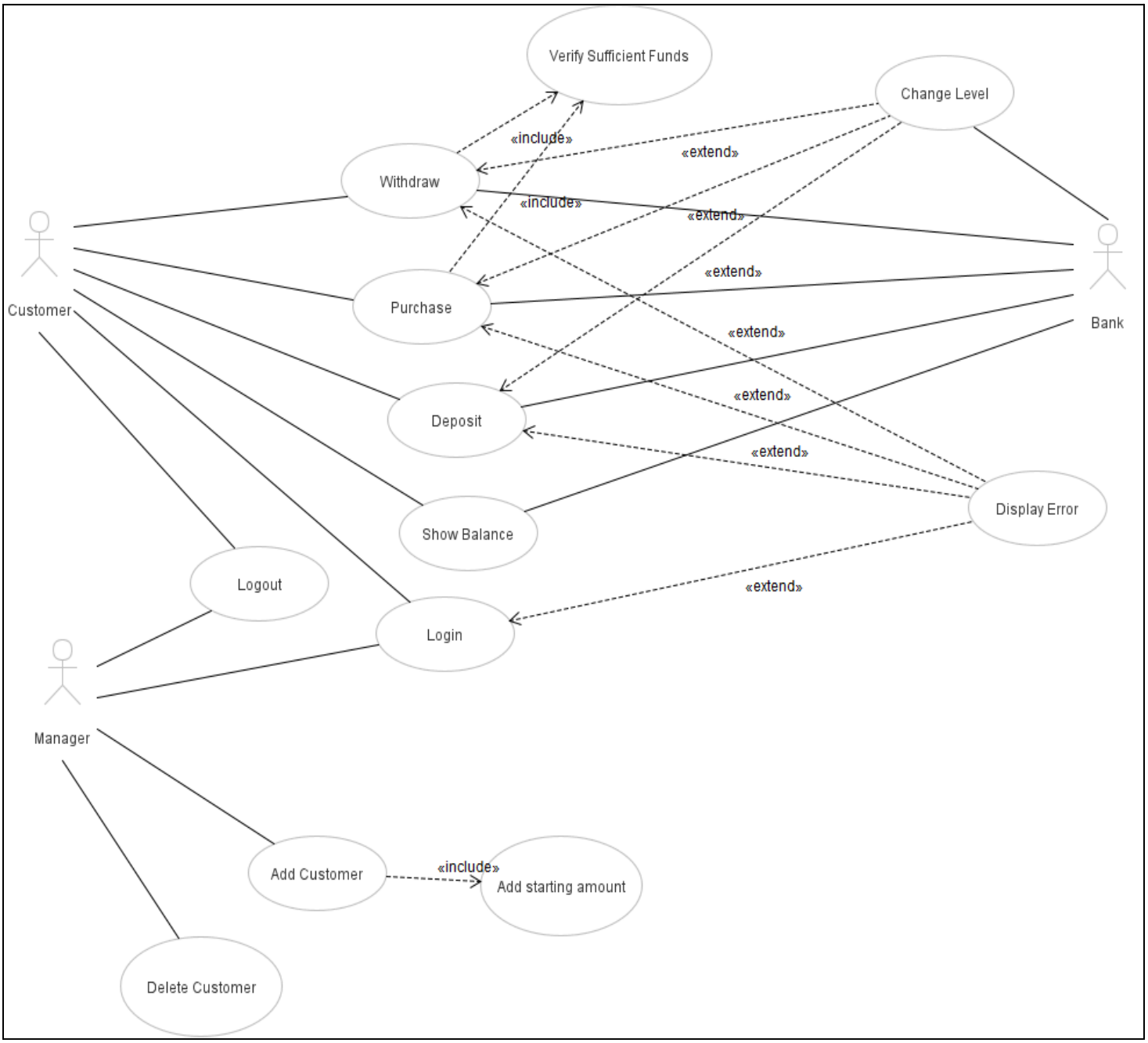
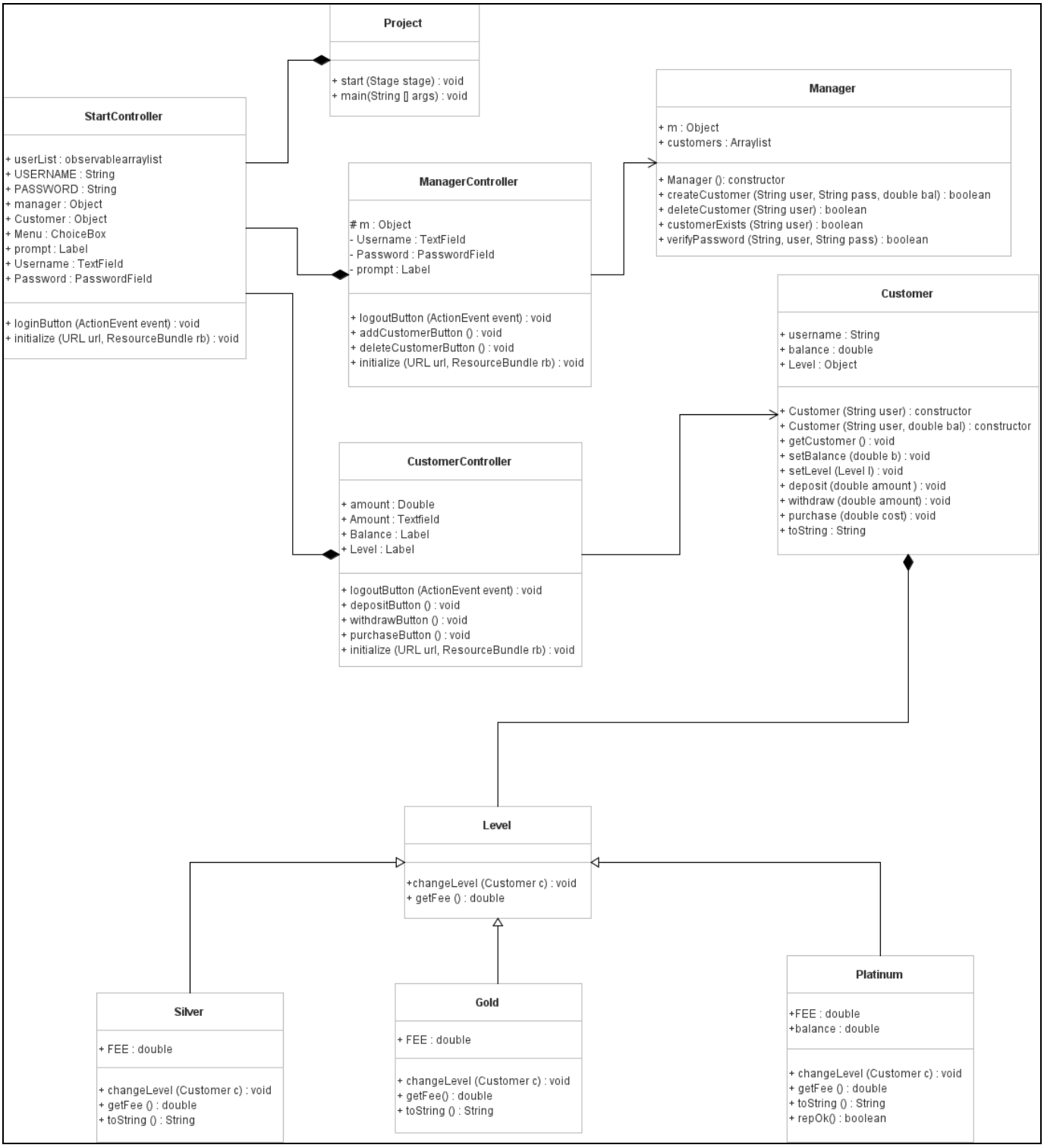
Use Case Diagram:



Class Diagram:



Use Case Diagram:

The program has two primary actors, the Customer and Manager, and one secondary actor, the Bank. The manager and customer can first log in and log out of the banking application, which involves a credential verification process that may result in an error message. The manager can then cancel an existing customer account or create a new one that includes a starting balance after logging in. Meanwhile, after the customer logs in, they can check their initial balance, have the ability to deposit, withdraw funds, and make purchases. However, making purchases and withdrawing involves verifying that there are sufficient funds, which may result in an error message. There is also an extension of an error message for deposits if the user displays a sufficient amount. Silver/Gold/Platinum and Level are the components that make up the state design pattern. Silver, Gold and Platinum are object classes inherited from the abstract class Level.

Class Diagram:

The main method and the starting method through the Project class are used to initialize the banking application. This launches the login page's user interface, which is managed by the StartController class. Subsequently, the user logs into the Customer class, managed by the CustomerController class, or the Manager class, managed by the ManagerController class. The user can add new customer accounts and their initial balance, as well as remove existing customer accounts, using the Manager interface. The user can make purchases, deposit, and withdraw using the customer interface. The customers must pay a fee based on their individual level while making purchases, which goes from silver to gold to platinum (which inherits Level class). Depending on how much money is in their account, level changes are made.