Financial Application Project – ASD Group 1

We have designed and developed framework that is able to support two similar application bank and credit card. Framework has default application also so that we can run framework without bank and credit card application. We completed development of bank and credit card application and plugged successfully to framework. We have drawn class diagrams for framework and individual applications and also drawn sequence diagrams of "Create customer and create account", "Adding interesting to all account", and "Withdraw transaction" for bank application

We have used following patterns in our framework:

* Simple factory method: To create the objects of controller, account, person/company
* Singleton: Singleton pattern is used when IOC happens at Framework and ask for Concrete Class level Transaction Controller (i.e BankTransaction Controller)
* Template method: It is used in Fincom - the main App inside the framework when is constructed ( at Constructor) and Transaction and when concrete commands pass execute message to Transaction controller it asks for saveTransaction from the client Controller.
* Command pattern: To perform different transaction on account. Transactions (deposit/withdraw and add interest) are commands, account are receiver, and transactionController is context.
* Proxy pattern: Proxy pattern is used for deposit and withdraw transaction to send the mail to client depending on provided condition. We are passing functor in proxy to send the mail which means we can pass any type of functor that have common interface to proxy so that we can do any operation through function. For now function has pre() and post() methods.
* Observer pattern: Observer pattern is used while performing interest transaction. Interest transaction is one of the command for command pattern whereas interest transaction is also playing a role for subject in observer pattern where list of all account are its observer.