**Montclair State University**

**Computer Science Department**

**CSIT 415–Software Engineering II**

**Spring 2022**

**Term Project Description**

# General Description

**Title:** Online Banking System

**Source:** Internet

The software engineering project like the banking system is a very essential project in the banking sector to store the account information and banking transactions within the database. This banking system application also adds new customer details. By using this project, data searching can be done very fast in less time. By using this software, clerical work can be reduced almost.

This software allows quick transactions of creating a new account for the customer, cash withdrawal from the user account, cash deposit into the account, account balance checking for the account holder even if there is huge data within the database. This project provides user-friendly, fast, reliable, efficient interfaces for banking. So, there is no chance of losing the customers data.

This system can be easily connected to the scanners and printers so that the user can get the annual report in a printable format.

* **Required Modules:**

1. **Admin Module:** Admin need to login by providing the login credentials to access the below given admin modules.
   1. Login
   2. Online balance check and transaction information: Admin can check customer information if card credentials are provided.
   3. Balance transfer: Admin can transfer balance if card credentials are provided.
   4. Online record Entry: Bank staff will input and maintain their record online.
   5. Online record search: Bank staff will easily search a record and update it if needed.
2. **Customer Module:** Customer can register on the system and get his/her online account on site.
   1. Login
   2. Online balance check and transaction information
   3. Save or view up to 1 year past history of transaction
   4. Balance transfer
   5. Print Report or Statements

**Important Notes:**

* State any assumptions you make.
* Team members are encouraged to follow the procedure of the process model they will be choosing for this project.

**Project Operational Guidelines**

The project will be carried out in teams of 4 students. Each student in a group will work as a group leader for a phase and it will be rotated among the group members. One hard copy of the report will be submitted per group.

# Specific Requirements

## Functional Requirements:

In the **Online Banking System,** students are required to implement the following functions:

* **Login**
* **Online balance check and transaction information:** Customer will be able to check his balance online while sitting at home by accessing the database of the bank using his/her username and pin-code allotted him by the bank.
* **Save or view up to 1 year history of transaction:** It will be easy for the customer to view or save his history transactions up to past 1year transactions. It will provide him the opportunity to maintain his bank balance and needs.
* **Balance transfer:** This system will provide a path to the customer of the bank to transfer his balance to other account in easy steps. A small transfer fee will be applicable for this transaction.
* **Online record Entry:** Bank staff will input and maintain their record online. It will be easy and efficient for them to serve more and more people in less time.
* **Online record search:** Bank staff will easily search a record and update it if needed. Transactions will be faster even physically from the branch because it will be very easy for the bank staff to check the balance of a specific person and update its record if necessary.
* **Print Report or Statements**

## Interface Requirements:

### User Interface:

The system shall provide a uniform look and feel between all the pages. Students are required to choose any application type and software for front end and back end. They need to mention the software they used for front end and back end. For example:

* **Application type:** Web-based/ Desktop/ Mobile
* **Front-end software:** Vb.net
* **Back-end software:** SQL+/ MYSQL/ Oracle

### Software Support:

* **OS:** Windows/Linux
* **Supported Browsers:** Mozilla/ Chrome/ IE
* **Editor and Compiler Used:** Netbeans/Eclipse/Spyder

**2.3 Non-Functional Requirements:**

Those requirements which are not the functionalities of a system but are the characteristics of a system are called the non-functionalities. Every software system has some non-functionalities. Just fulfilling the requirements of the user is not a good task, keeping the system accurate, easy to maintain, reliable and secure is also a basic part of software engineering. Online Banking System must have the following non-functional requirements so that it could be said as a complete system.

1. **Safety and Security:** This Project must be safe and secure because customers will directly contact their account through the internet. Software will have to identify the valid customer according to his/her bank details and password. So it is a difficult task to prevent the system by major disasters by preventing the unauthorized access to the system.
2. **Maintainable**: Each of the modules should be designed in such a way that a new module can easily be integrated with it.
3. **Hardware limitations:** It should be designed in such a way that cheap hardware must be installed to access and use it effectively. It should be platform independent. There should be no hardware limitations. In should be designed to work with the low specification hardware so that it could easily work with the high specification hardware.
4. **Reliable**
5. **Testable**