

# Software Requirements Specification For CS451 Group 6: Commerce Online Banking Application

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Version 1

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## Revision History

Version	Date	Name	Description
1	09/23/19	David Tran	Initial Document

## 1 Introduction

### 1.1 Overview

The Commerce Online Banking application will be a web application using .NET and C#. It will interact with a database using MySQL. The application will allow customers of Commerce Bank to view their transactions and balance information. The user can also set up business rules that will generate alerts based on those rules.

This document provides information on the requirements for the Commerce Online Banking application. Project goals, scope and definitions are given in the introduction. Design constraints and application environment are described in the following section. Non-functional requirements are outlined for later verification. Functional requirements are given to show the system features and expected user interaction.

Project constraints will be included in separate documentation. The Software Project Management Plan will give specifics on project budget and schedule. A separate Test Plan document will address test specifications and procedures.

### 1.2 Goals and Objectives

The main objective of this project is to allow customers a way to view their bank account information from this application. The application is expected to have a:

1. Login page, homepage, transaction page, alerts page, reports page and rules page.
2. Login page allowing users to enter username and password to access account information.
3. Homepage alerting users of new alerts, most recent transactions, links to other pages to navigate site and ability to hide alerts where the times tripped is zero.
4. Transaction page with a transaction list sorted by date, ability to export transaction list and links to other pages.
5. Alerts page containing all alerts in a list sorted by date and links to other pages.

6. Reports page containing alerts configurable to specified dates or criteria, ability to export reports and links to other pages.
7. Rules page allowing for configurable rules to be created to alert the user when transactions fit into a set of criteria, at least 3 different types of rules, the ability to customize rules without technical assistance and links to other pages.

### 1.3 Scope

The Commerce Online Banking application will provide users with the ability to access information about their banking account from a web application using any platform. Users will be able to check their bank account balance by logging in to their account through the web app.

### 1.4 Definitions

**Application** – the product that is being described here; the software system specified in this document.

**Project** – activities that will lead to the production of the Commerce Online Banking application.

**Client** – Commerce Bank.

**User** – the Commerce Bank account holders.

**Use case** – describes a goal-oriented interaction between the system and an actor. A use case may define several variants called scenarios that result in different paths through the use case and usually different outcomes.

**Scenario** – one path through a user case.

**Actor** – user or other software system that receives value from a user case.

**Developer** – the person or organization developing the system, also sometimes called the supplier.

**Stakeholder** – anyone with an interest in the project and its outcomes. This includes clients, customers, users, developers, testers, managers and executives.

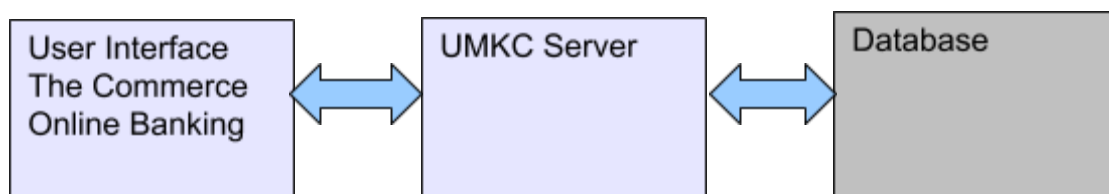
### 1.5 External References

This project has no external references.

## 2 General Design Constraints

### 2.1 Commerce Online Banking Application Environment

The Commerce Online Banking application will include a web app designed to work on any platform. This app will interface with the UMKC server to access our database.



## **2.2 User Characteristics**

**Users:** Commerce Bank customers. Anyone with a Commerce Bank account should have access to Commerce Online Banking. Commerce Bank employees will create accounts for users at the bank. Users cannot register for an account through the web application. This application will not provide a means of adding users.

## **2.3 Mandated Constraints**

The web app has limited attempts for login before lock-out. Limited times a transaction report can be printed out. This platform must be built using .NET platform and C#.

# **3 Nonfunctional Requirements**

All nonfunctional requirements are high priority.

## **3.1 Operational Requirements**

**Usability:** 95% of the users will be able to use the tools due to most of the online banking applications have a similar user interface.

## **3.2 Performance Requirements**

**Maintainability:** Our database will allow us to keep track of the entire system, such as checkpoints and recovery. This is related to reliability as well, in some aspect.

**Availability:** System will be running 24/7.

## **3.3 Security Requirements**

Our database access will give us the opportunities such as:

- SQL injection.
- We can keep specific log or history of the data.
- Restrict the communication between different areas of the program.
- Data integrity for critical variables.

### **3.4 Documentation and Training**

The Commerce Online Banking application will be delivered to users as a download without documentation or training. A user guide and system documentation will be provided to project stakeholders.

### **3.5 External Interface**

#### **3.5.1 User Interface**

The user interface will be eye-catching and visually appealing. When users access their accounts, the interface will provide a smooth transition after logging into the Commerce Online Banking system.

The interface will be intuitive. As a web application, it will be simple to use and feel familiar to users of previous bank systems. No training will be provided and it is expected that 95% of users will be able to use the app without any training.

#### **3.5.2 Software Interface**

The web application will be built using .NET and C#. The application would display tables using the data MySQL database.

## **4 Functional Requirements**

### **4.1 Required Features**

#### **4.1.1 Use Case: 1**

##### **Description: Set Up Alerts Based on Business Rules**

Actors: Commerce Bank customers

Value = High

Cost = High

##### **Basic Path**

1. User opens Commerce Online Banking application.
2. System prompts user to login.
3. User logs in to the system and access the homepage.
4. System displays Account Balance, Recent Transactions, and Navigation Bar.
5. User selects on Rules on the Navigation Bar.
6. User views the current rules that have been set.
7. User can click on the **X** to remove rules or click on +New to create a new rule.
8. If making a new rule, user will enter the fields based on a dropdown and input field box.

9. After finishing, user will select Complete to add rule to Rules tab.
10. User exits the system.

#### **4.1.2 Use Case: 2**

##### **Description: Receive Notifications and View Alerts**

Actors: Commerce Bank customers

Value = High

Cost = Medium

##### **Basic Path**

1. User opens Commerce Online Banking application.
2. System prompts user to login.
3. User logs in to the system and access the homepage.
4. System displays Account Balance, Recent Transactions, and Navigation Bar.
5. User selects on Alerts on the Navigation Bar.
6. System displays the recent alerts that have been triggered.
7. User can delete an alert by pressing **X** next to the alert.
8. User views the alerts and the number of times each has been triggered.
9. User exits the system.

#### **4.2 Optional Features**

##### **4.2.1 Use Case: 3**

##### **Description: Export Transactions & Reports**

Actors: Commerce Bank customers

Value = Medium

Cost = High

##### **Basic Path**

1. User opens Commerce Online Banking application.
2. System prompts user to login.
3. User logs in to the system and access the homepage.
4. System displays Account Balance, Recent Transactions, and Navigation Bar.
5. User selects on Reports on the Navigation Bar.
6. System displays previous reports generated and ability to change the frequency of automatic reports.
7. User can press export next to the report to view the report details that contains date, alert description, and number of times tripped.
8. User exits the system.