**Project Charter:**

CS451R: Software Engineering Capstone

Commerce Bank Group 6

Spring 2021

**Preliminary Schedule and Budget Estimates**

*Project Title:* Commerce Bank Web Application

*Start Date:* 2-12-2021

*End Date:* 5-14-2021 (Finally Customer Presentation Date Pending)

Specific completion dates for major deliverables can be found in the “Major Milestones and Deliverables” section of this document. Of course, it is also important to acknowledge that software development is never completely certain when it comes to deadlines. Therefore, while there is not too much flexibility within our overall schedule, smaller task completion can be subject to change due to unforeseen circumstances/ challenges.

Regarding budget estimates, this is a pro bono, university project. This means our group will be utilizing the recommended free and open-source development platforms and libraries. We do not foresee any part of our project requiring monetary assistance because every requirement should be able to be fulfilled using a free alternate solution.

**Stakeholders**

Due to the fact this is a pro bono, university project our stakeholder representation is slightly different than what a real-world project would have. This means while we hope our users will be Commerce Bank customers, we are not 100% certain of that outcome. However, they will still be listed below because their usage of our web application is our project’s intent.

|  |  |  |
| --- | --- | --- |
| **Stakeholder Position** | **Specific Party** | **Expectations** |
| Project Manager | Lauren Magee | The expectation of the project manager is to act as a communication link between all stakeholders involved. They will gather requirements from the project sponsor and customer, relay the information to the development team, and create a plan/ timeline to fulfill the project’s goals. |
| Project Sponsor | Kendall Bingham | The expectation of the project sponsor is to act as the main communicator with the project’s customer. This individual will then broadcast any project specifications, changes, and deadlines to either the project manager or the development groups directly. |
| Customer | Commerce Bank Team | The expectation of the customer, in this situation, is provide the development team with open communication access to gather and clarify further on specific project requirements. Throughout the iterative process, the customer will also be expected to provide feedback on the various prototypes. |
| Users | Commerce Bank Customers | The expectation of the users is to utilize this product to fulfill their transactional ledger needs. |

**Purpose**

The purpose of this project is to provide Commerce Bank consumers with user-friendly, seamless access to view and edit transactional history, through a cross-platform web/mobile application, with the sole intent to provide them with an enjoyable, efficient, online banking experience. We envision our customers, Commerce Bank, enjoying these user focused components so much that they decide to incorporate parts or the entire application in an enterprise development.

**Goals and Objectives**

Our greatest goal is to deliver a tested and finished product to Commerce Bank, utilizing their recommended development platforms, and that they decide to distribute it to their customers in the future. At the lowest level, we will consider this goal met if our project has completed the required 10% code testing and we receive unanimous, positive feedback for our final presentation from the review panel. At the highest level, we will consider this goal met if the testing is completed, at the same level, and we receive verbal confirmation that parts or the whole application will be integrated into future enterprise use.

Our smaller goals focus on usability and the overall user experience, as we recognize the intention of this project is to satisfy and enhance the banking routines of our intended users. The first secondary goal is to create a login window that provides valid accessibility and reliability. We will consider this goal met if registered users can access their accounts with proper login credentials and if those same users can effortlessly recognize their trusted Commerce brand on that page. Another secondary goal we have is to develop a dashboard that highlights important user data and gives the user power to select which data should be of importance. We will consider this goal met if the user can view previously triggered notification rules, edit/ turn off specific notification rules, and also has the option to export their app activity to an Excel spreadsheet. Our last big secondary goal is to allow the user to view their account transaction history and make additions if necessary. We will consider this goal met if the user can view the transaction list sorted by date, the user can add additional transactions to the mobile ledger, and when new transactions are added the notification rules set should be triggered if applicable.

**Scope**

The application will have three different windows to guide the user through their Commerce online banking experience, these will include a login, dashboard, and transactional pages. On the login page, the user will be allowed to access their account only if correct, known credentials are provided. This page will not provide registration for new users, allow users to change a password, or give the option to recover an account if their password has been forgotten. The dashboard page will spawn when users have successfully logged into their accounts. On this page a user-friendly, snapshot of data will be visualized to show the user their history of triggered notifications for a time interval of a year or a month. The user will also be able to hide notification rules and pull notification rules from different timeframes for comparisons. Lastly, this page gives the user an option to download an Excel version of their transactional notifications. The dashboard page’s purpose is for viewing history only, no manipulations to data, transactions, or notification rules can be made on this page by the user. The transactional page will be the designated window where users can make edits to their data. Upon the initial loading of the page, all user information will be sorted in a list by date. They will then have the options to add new entries to their online ledger. This page will not allow users to search for specific data or provide any advanced filter features beyond the original date sorting.

In general, the application will abide by the following mentioned design considerations. Design for all pages will embody simplicity both in graphics and wording. None of the windows will feature any overbearing visuals or use statements/ instructions the user isn’t expected to already be familiar with. Users of the app will easily be able to recognize the brand of their web application. Each page will feature Commerce bank stylings, logos, and other trademark designs. None of the pages will branch from Commerce’s proprietary theme. Finally, the app will be a wrapped project that will fully render for any user wanting to access it without needing special software or additional downloads. This means there will not be any external resources or libraries and all developmental tools utilized will be available cross platform.

**Major Milestones and Deliverables**

The team’s major milestones and deliverables follow closely to what is provided by the Project Sponsor in Canvas. In addition to those, at every team meeting we establish additional weekly goals and deliverables. The timetable below displays the merging of the two already created to this present point (2/24/2021), however, these are subject to grow as the project progresses throughout the semester.

|  |  |
| --- | --- |
| **Date** | **Milestone/ Deliverables** |
| 2-26-2021 | Project Charter  Login Page Design Prototype  Dashboard Page Design Prototype  User Notification Research  SQL Backend Integration to Web Application Practice  Team Meeting |
| 2-28-2021 | Requirements Document |
| 3-1-2021 | Iteration 1 Closeout |
| 3-5-2021 | Retrospective for Iteration 1  Team Meeting |
| 3-7-2021 | Project Plan |
| 3-12-2021 | Team Meeting |
| 3-14-2021 | Risk Management Report |
| 3-15-2021 | Iteration 2 Closeout  Commerce Bank Presentation #1 |
| 3-19-2021 | Mid Semester Presentation  Retrospective for Iteration 2  Team Meeting |
| 3-26-2021 | Team Meeting |
| 4-2-2021 | Team Meeting |
| 4-4-2021 | Architecture Document |
| 4-5-2021 | Iteration 3 Closeout |
| 4-9-2021 | Retrospective for Iteration 3  Team Meeting |
| 4-16-2021 | Team Meeting |
| 4-19-2021 | Iteration 4 Closeout |
| 4-23-2021 | Retrospective for Iteration 4  Team Meeting |
| 4-30-2021 | Test Plan  Team Meeting |
| 5-3-2021 | Iteration 5 Closeout |
| 5-7-2021 | Project Results Document  Retrospective for Iteration 5  Team Meeting |
| TBD | Commerce Bank Final Project Presentation |

**Project Priorities**

Due to this being a university semester project, there is very little flexibility in the development schedule and no flexibility for the mid-way/ final presentation and the project deadline. Therefore, we have prioritized completing the application’s “bare minimum” first and adding personalized features later. As a group we have agreed upon the following prioritization, ordered from most important to least.

1. Three rendering application pages – login, dashboard, and transactional ledger
2. Login page usability – allowing users to successfully access their accounts
3. Transactional ledger visibility – user can see data from SQL backend on screen
4. Transactional ledger editing – user can add new transaction to ledger
5. Notification rules – add three built-in notification rules that will email user when triggered
6. Dashboard page visualization – orders user transaction data by data for intervals of one month or one year
7. Dashboard privileges – user can turn off specific notification rules if desired and download Excel version of data
8. Graphics – web application design follows Commerce Bank themes
9. Web application security and other stretch goals

The goal of this ordering is to prioritize creating a functioning, usable application first and then add user experience customizations along with additional features afterwards. Roles on the team are fairly flexible when aiming to hit deadlines in order to hit almost all or the entirety of our goals and objectives.

**Risks and Obstacles to Success**

Within the technical realm, there are a few risks and obstacles to success for our team. The biggest obstacle is that none of our team members have had formal experience using the .NET web development platform. However, we believe after looking into tutorials and other open-source projects on the internet we should be able to acquire the necessary skills to complete the project. Another risk we face is the uncertainty of whether we will be able to combine our individually, assigned segments of code. We decided to approach this possibility by encouraging continuous communication on the steps we are taking through the development process by ourselves. If everyone can keep their coding styles consistent, there should not be too much difficulty adding in new code portions.

From a non-technical standpoint, our biggest challenge is upholding clear and consistent communication. While it is a team expectation, we do not have any disciplinary actions in place if a teammate decides to “go dark” for a period of time. It is the hope that individuals will share a mutual feeling of responsibility to contribute. The other risk we face, from working in a group, is groupthink. We are a group of people that have never worked together before; therefore, no one wants to accidentally offend another person if they have ideas for improvements to their work. To overcome this, we have decided to partner up on most deliverables. This way at least two people can collaborate the initial concept and then the work would not just be representative of one person. This would make constructive feedback easier to give.

**Success Criteria**

The Commerce Bank project will be considered a success if, at the end of the project, all of the following conditions hold:

1. Our team presents a finished prototype that hits 75% of our top project prioritizations.
2. We had deliverables completed by the deadline for all our Project Sponsor’s assignments (on Canvas)
3. Our users can effortlessly distinguish our web application’s brand upon initial usage.
4. Everyone on our team’s individual efforts and contributions are mostly proportional on our GitHub repository’s activity visualization.
5. We receive a greater amount of positive feedback than criticism from our final presentation to our customers.

|  |
| --- |
|  |

**Signatures**

Project Manager

Project Sponsor

Customer

Technical Lead