Composed by Jordan Larson, Anthony Laughlin, and John Michaels

09/25/14

Project Management Utility

rEQUIREMENTS DOCUMENT

**1.0 Introduction**

This document describes the requirements for the Project Management Utility (PMU) to be used by Commerce Bank. The utility will allow users at Commerce Bank (CB) to manage proposed, in progress, and archived projects. The PMU will manage projects that may become future solutions used by CB, or they can also be alterations of existing solutions.

***1.1 Goals and objectives***

The main goals of the PMU are to do the following:

1. Provide the customer with a solution that will allow employees to:
   1. Propose a new project
   2. Manage an existing project
   3. Archive or copy a completed project
2. For each current project, it should be possible to:
   1. Add a name, description, and attach files in PDF or .doc format
   2. Edit projects
3. Provide tiered access to users, based upon their role in PMU, ordered from lowest to highest level of access – employee, mentor, ambassador, and admin

***1.2 Statement of scope***

The PMU will provide easy access to a project. Employees will be able to post a new project, mentors and ambassadors will be able to activate and manage a project assigned to them, and admins will be able to have complete oversight of all projects.

***1.3 Definitions***

Use case – an interaction between an actor and the system, or the system and something in the system.

Scenario – a single path in a use case

Actor – can be a user or a software system that acts on something else

Role –category of a user – user/employee, ambassador/mentor, admin

Project – any project handled by the PMU

User/Employee – the base class of a user. This class has the least permissions and can post projects and edit them before their status is changed to “Active – In Progress”

Ambassador – retains all permissions of user/employees, but also can approve a project and flag a project for review when it is ready for an admin.

Mentor – the mentor will represent a school or multiple schools and will help the ambassador(s). Permissions for mentors largely overlap with ambassadors (TBD further)

Admin – the admin will be able to do anything possible with a project.

***1.4 Document Conventions***

Any undetermined or incomplete items in this requirements document will be marked TBD.

***1.5 Assumptions***

* All team members will communicate any changes outside of code using GitHub, Dropbox and other virtual shares.
* Contact with Dylan or Jeremy will be available via email anytime we have questions.
* CB employees will only upload a project idea if a duplicate does not exist

**2.0 General Design Constraints**

***2.1 Project Manager Application Product Environment***

The project manager application will be accessible via a web browser on the Commerce Bank internal network and the database which stores all the information will be hosted on one of Commerce Bank’s own servers.

***2.2 User Characteristics***

Contributor– Commerce Bank employees who have a team and knowledge of web-based applications and can post their ideas of any kind of project that they would like to see be created.

* Can contribute new ideas to the database.
* Can view all ideas from all contributors, but can only edit ideas that they have posted themselves.

Ambassador– An ambassador represents a school for Commerce Bank and checks in with the schools to get progress updates as well as creating weekly and monthly reports for the admin.

* Has the ability to add notes to projects they have been assigned to.
* Creates reports to give to the admin.
* Can change only a few status updates.

Mentor– The mentor is the go-to person for students, interns, and ambassadors for technical questions on what the website should be like underneath the surface.

* Can contact the school or the school can contact the Mentor for technical questions.
* Can view the project after it has been assigned and can make notes.

Admin – The admin has ultimate control on the web application and can change any status, delete any contribution, or archive any idea. They can push the projects into the next state whether it be from active to be assigned to a school, or from intern state to production. Has the ability to basically do everything in the web application.

***2.3 Mandated Constraints***

Any Commerce Bank symbols used in the app must adhere to guidelines the company provides. Any change to the database will require authentication – users are able to view projects when not logged in. The project must be coded using C#, ASP.NET, and MVC and must be compatible with IE9+.

**3.0 Nonfunctional Requirements**

Nonfunctional requirements include requirements that involve aspects of the program including usability, performance, security, etc. They usually have a quantitative and a qualitative property.

***3.1 Usability Requirements***

The system should be easy to use. Any user shall be able to do a number of UI interactions with a minimum overall success rate of 95%, without using the help feature. These UI interactions include the following:

* Adding a new project
* Editing a project
* Changing the status of a project (including archiving projects)
* Searching for a specific project
* Printing a weekly and/or monthly report

***3.2 Operational Requirements***

The system will manage all projects in a way that allows a 95% success rate when searching for a project, assuming a title or description keyword is entered appropriately.

***3.3 Security Requirements***

The system will be internal facing and will provide a login prompt whenever a change is going to be made to a project. No security is required for users to view a project.

***3.4 Documentation and Training***

The application will be a web app and will provide a help option to the user, if requested.

***3.5 External Interface***

The interface will be intuitive and will also be aesthetically pleasing. Less than 10% of users will require to use the aforementioned help feature.

**4.0 Product Backlog**

In this section, we will cover many user stories and use cases. User stories will help to garner details as to how to UI will ultimately benefit the users interacting with it. Much can be learned about the many features we plan to incorporate into the final product of the PMU. Section 4.2 will cover use cases, which are in depth explanations of UI interactions.

**4.1 User Stories**

**4.1.1 Contributor**

As a contributor, I would like to…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Story ID** | **User Story** | **Story Points** | **Priority** | **Status** |
| SCO1 | Be able to log into the system. | 10 | 1 |  |
| SCO2 | Be able to post new ideas. | 5 | 2 |  |
| SCO3 | Be able to view my previously posted ideas and edit them with ease. | 7 | 4 |  |
| SCO4 | Sort through all ideas that have been posted already by changing how they are sorted. | 10 | 5 |  |
| SCO5 | Be able to request notifications about selected projects. | 5 | 3 |  |

**4.1.2 Ambassador**

As an ambassador, I would like to…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Story ID** | **User Story** | **Story Points** | **Priority** | **Status** |
| SAM1 | Be able to write notes on a specific project after it has been assigned. | 5 | 1 |  |
| SAM2 | Change the status of the project between Assigned and Progress. | 2 | 3 |  |
| SAM3 | Gather reports and email the Admin directly, easily. | 10 | 2 |  |
| SAM4 | Find the contact information for the school’s contact as well as any other needed contacts. | 2 | 4 |  |

**4.1.3 Mentor**

As a mentor, I would like to…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Story ID** | **User Story** | **Story Points** | **Priority** | **Status** |
| SME1 | Be able to post to the notes on the project after it has been assigned to keep up to date. | 5 | 1 |  |
| SME2 | Gather contact information for the school’s to answer any technical questions directly. | 2 | 2 |  |

**4.1.4 Admin**

As an admin, I would like to…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Story ID** | **User Story** | **Story Points** | **Priority** | **Status** |
| SAD1 | Be able to delete any existing idea or contribution that has been posted. | 3 | 4 |  |
| SAD2 | Be able to flag a contribution to inform the contributor to add more detail or explanation. | 5 | 5 |  |
| SAD3 | Change the status of any project at any time. | 2 | 1 |  |
| SAD4 | Be able to archive any idea so that it can be used at a later time. | 12 | 3 |  |
| SAD5 | Be able to receive notifications for any projects that are flagged for me. | 5 | 2 |  |

**4.1.5 User Stories Cont’d**

|  |  |  |  |
| --- | --- | --- | --- |
| **Story ID** | **Task** | **Description** | **Story Points** |
| SCO1 | Allow a contributor to log into the system. | The contributor should be able to log in so that they can post their own ideas. | 10 |
| SCO2 | Allow the contributor to post new ideas. | Posting ideas would need a title, description, and any other files they would like to add. | 5 |
| SCO3 | Allow the contributor to view previously posted ideas. | Easy access to the previous ideas that a contributor has posted. | 7 |
| SCO4 | Allow a contributor to see all ideas that are posted. | View to all of the previously posted ideas and these can be sorted in different ways. | 10 |
| SCO5 | Allow a contributor to subscribe for notifications. | The notifications will be emailed to whomever subscribes to the notifications. | 5 |
| SAM1 | Allow the ambassadors to write notes on projects. | This is just a simple text box where the ambassador can add small comments. | 5 |
| SAM2 | Allow an ambassador to change the status of a project | The ambassador can only change between Assigned and Progress status. | 2 |
| SAM3 | Ability to easily pass on status reports to admin. | Can create a status report, and then upload that reports, and notify the admin. | 10 |
| SAM4 | Allow an ambassador to easily acquire contact info. | This is just a page where all the contact is found for people who are in the project. | 2 |
| SME1 | Allow a mentor to post notes in the project space. | This is just a simple text box where the mentor can add small comments. | 5 |
| SME2 | Make contact info accessible to the mentor. | This is just a page where all the contact is found for people who are in the project. | 2 |
| SAD1 | Allow the admin to delete any posts. | Only the admin can permanently remove a contribution from the system. | 3 |
| SAD2 | Allow the admin to flag any contribution. | Flagging contributions is just to ask for more information or to notify the contributor. | 5 |
| SAD3 | Allow the admin to change the status of projects. | This is to change the status or assign the project idea to a specific school. | 2 |
| SAD4 | Allow the admin to archive ideas. | Archiving projects so that they can be used for later on. | 12 |
| SAD5 | Allow the admin to receive notifications for projects. | The admin would like to be able to subscribe to certain projects and receive notifications. | 5 |

**4.2 Use Cases**

***4.2.1 Submit a New Project Idea***

|  |  |
| --- | --- |
| Use Case Title: | Submit a New Project Idea |
| Actors: | Contributor |
| Precondition: | User is logged into either Domain or through some sort of Authentication. |
| Basic Flow: | 1. The contributor begins a new contribution. 2. The user will have a way to enter contribution properties, including the project idea, and description. 3. When finished, there will be a submit button to click and the idea will then appear on the idea list. |
| Alternate Flow: | 1. An option is available to the contributor to upload documents to  their submission. |

***4.2.2 Request Notifications***

|  |  |
| --- | --- |
| Use Case Title: | Request Notifications |
| Actors: | Contributor |
| Precondition: | An idea has already been posted. |
| Basic Flow: | 1. The user chooses to be updated every time a modification is made to a proposed project. 2. Notifications will be emailed to the contributor when any change has been made to the project. |
| Alternate: | When submitting a new project, the contributor can select to receive notifications for that project. |

***4.2.3 View Personal Contributions***

|  |  |
| --- | --- |
| Actors: | Contributor |
| Precondition: | The user has previously submitted an idea. |
| Basic Flow: | 1. The user will select to view their personal projects. 2. From here, the user will be able to edit any contributions as long as it is in active state. |
| Alternate: | If there are no contributions found, show a message either saying none have been found for that user or say something went wrong in displaying results. |

***4.2.4 Edit a Project***

|  |  |
| --- | --- |
| Actors: | Contributor, Ambassador, Admin |
| Precondition: | The user has is viewing a project they have permission to edit |
| Basic Flow: | 1. The user will choose to edit the project. 2. The user will be able to change fields as desired or add supporting files/documents |
| Alternate Flow: |  |

***4.2.5 Archive a Project***

|  |  |
| --- | --- |
| Actors: | Admin |
| Precondition: | There is an idea that can be archived. |
| Basic Flow: | The Admin will be able to view a contribution. The admin will choose to archive the project so it can be viewed again in the future. There will also be a copy button that way the Admin can copy an idea so that there can be multiple projects. |

|  |  |
| --- | --- |
| Actors: | Ambassador, Admin |
| Precondition: | The user has a current project assigned and they are viewing it. |
| Basic Flow: | 1. The user will choose to view the projects assigned to their schools. 2. The user will be able to change the status of the project. 3. The options for status change for ambassadors and admins are to change a project from “Active” to “Assigned” or from “Assigned” to “Assigned: In Progress” |
| Alternate Flow: | 1. If the user is an admin, they can also change a project’s status from   “Assigned: In Progress” to “Flagged for Internship.” |

***4.2.6 Change the Status of a Project***

***4.2.7 Search for a Project***

|  |  |
| --- | --- |
| Actors: | Contributor |
| Precondition: | There are projects in the PMU |
| Basic Flow: | 1. Any user will be able to search for a particular project based on title or the contents of the project description 2. Search results will be presented to the user and they will select the appropriate project 3. The selected project will appear |
| Alternate Flow: | The user chooses to go to a different view than the search view |

***4.2.8 View/Print a Monthly/Weekly Report***

|  |  |
| --- | --- |
| Actors: | Admin |
| Precondition: | The admin has located a set of projects he/she wants to view. |
| Basic Flow: | 1. The admin will select to view a set of projects in a given week or in a   given month.   1. The admin will choose to view a set of projects for a number of   parameters, including the following:   1. By contributor 2. By university 3. By status 4. Based upon the input, a list of projects will be displayed to the admin. 5. The admin will be able to print the list if desired. |
| Alternate Flow: | The user has the ability to post notes about projects that are currently being worked on. |

***4.2.9 Decline a Project***

|  |  |
| --- | --- |
| Actors: | Admin |
| Precondition: | There are projects in the PMU |
| Basic Flow: | 1. The admin will locate the project they want to decline. 2. The admin will select to decline the project. 3. A prompt will appear verifying that the admin wants to decline the   project.   1. The project’s status will be changed to declined. |