



CS4610 *Project Management Plan*

Project Proposal for Mumba
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1 Introduction

1.1 Project Overview

Mumba will be a kanban board like task manager tailored toward smaller projects and assignments. It will be hosted at <https://mumba.goldenticket.biz> (I already own the domain name *.goldenticket.biz and dont want to buy another at this time). I hope for this project to be extensible to leverage apis from github/gitlab and google calendar if time permits (premium features on similar products such as Trello)

1.2 Project Deliverables

<https://mumba.goldenticket.biz> should deliver:

- Entity-Relationship model database and diagram for Users Boards Lists and cards
- User registration
 - At the very least registration will be required and consist of email password combinations.
 - If possible I will implement the option to sign in with other authentication providers such as google.
- a login page
- a dashboard page (a list of boards)
- a board view page (a listing of lists and cards under lists)
- the ability to create and modify:
 - Boards
 - Lists
 - Cards

2 Project Organization

2.1 Tools and Techniques

To implement this project I am planning to leverage the asp dotnet core framework. In order to manage the pages and content I will be using the Model View Controller pattern to manage my webpages. I will use a kestrel web-server behind an apache server to host the static content, a dotnet runtime application to handle the dynamic content and an SQL based server (possibly mariaDB) to hold my database elements. I will be implementing some form of authentication more than likely openID. I will use letsencrypt to get a ssl certificate. I plan on hosting the apache/kestrel combination in Azure for its support of dotnet. I may also end up using one of Azures Mysql implementations instead of mariaDB. If time permits I may implement continuous deployment and other fun dev-ops projects.

3 Project Management Plan

3.1 Tasks

- Create E-R diagram
 - Description: Create a model described the database schema for for Users Boards Lists and Cards
 - Deliverables: The E-R diagram.
- Create static web content templates
 - Description: A template for all webpages that will be included in the project, CSS theme etc.
 - Deliverables: HTML and CSS templates for the various pages minus the dynamic content.
- implement User registration and login
 - Description: Implement the database and api required for a login page, create the login page and test.
 - Deliverables: Dynamic login page and secure authentication for mumba.goldenticket.biz
- implement database link
 - Description: Implement the EM migrations needed for the asp.net app to integrate with the database.
 - Deliverables: Functional relational database entries back-end view of said database
- create first board and board creation method
 - Description: Implement the dashboard for boards, create the Board view and board creation view and controllers
 - Deliverables: Web page that shows a users existing boards with the ability to create new boards
- Create first list and list creation method
 - Description: In the view of a board generate the dynamic content that is lists
 - Deliverables: Boards can now have 0 - many lists
- Create first card and card creation method
 - Description: Create the cards and the detailed pop up of the cards and display them in the associated list
 - Deliverables: Lists can now have 0 - many cards and cards will have fillable fields:

- * title
- * description
- * due date
- * stretch goals:
 - Calendar view of cards / google calendar integration
 - to-do lists on cards
 - Git integration to tag branches, releases, commits, or issues to cards
- Write project Report and prepare documentation
 - Description: Project report as described in the project description appendix and a demonstration of the delivered product in class.
 - Deliverables: Project Report and Project Presentation

3.2 Timetable

- Week 1: Start on E-R Diagram and finish it and any other necessary documentation.
- Week 2: Create Basic project layout and begin static content.
- Week 3: Implement basic login system
- Week 4: Create Board dashboard
- Week 5: Begin creation of functional board
- Week 6: Continue board creation and start list creation
- Week 7: Add functionality to cards
- Week 8: Polish and write up reports