Group #2

CSC-154 Software Development .0001
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Project Management Application

Concept Pitch

June 02, 2020

Summary

We are developing a web application for small and large teams to use in managing and tracking their projects in a collaborative manner. Its focus will be on accessibility, organization, and communication to support the teams that use it. This application will be built on modern frameworks to best support its infrastructure and maintenance.

Problem

- **Organizing for success:** Teams need applications to clearly lay out the tasks of their project in order to achieve consistent and successful results. With the prevalent amount of remote work these days, businesses need options for project management that can easily communicate project tasks and track progress online.

- **Caught between extremes:** Small businesses don't have the resources to dedicate to administrating massive project management software, but larger businesses need more than the simplest tools have to offer.

- **Manual workflows waste resources:** Business today relies more on data and analytics for informing decision-making more than ever before. Small businesses need access to user-friendly tools that can help them automatically create reports rather than relying on manual data entry and report generation.
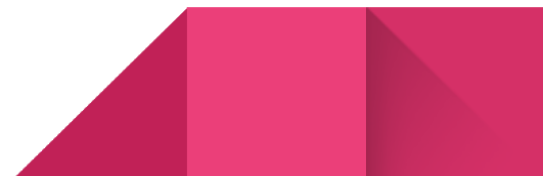
Solution

- **A happy medium:** Its goal is to blend sophistication, feature-richness, and simplicity of use in order to support teams of small and large sizes.

- **Strength through elegance:** A clean user interface allows the user enough space to focus on what matters most to them. The application's system interactions are similarly built on a philosophy of cleanliness: each component of the system handles just what it is designed to do, but can easily interface with the other parts.

- **Integrated features:** Whether you need to communicate with a team member, modify a task, or access reporting, any project management aspect should never be more than a click or two away.

Product

- **User-focused and business-friendly:** The product should be able to solve the customer's problems and is designed to constantly create value.

- **Attributes of success:** This application will feature a Kanban-style tracking board, issue hierarchy, team communication, and analytical reporting.

- **Structurally sound:** The application divides projects into a hierarchy of different objects with different uses. Projects are top-level containers, under which users can organize their other issue types. Stories define one aspect of a project, such as an individual system or development branch. Tasks are single processes that need to be accomplished. Bugs are problems or components that are not working correctly.
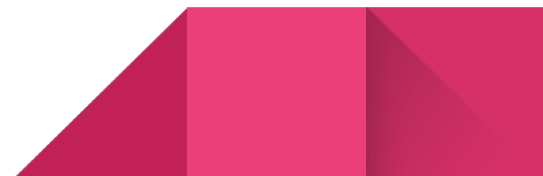
Competition

- **Above the contenders:** Our project manager application will help get your product to the place you envision it to be. Even though our contenders are all doing great things, they are not reaching their full potential. We plan to expand on what they have done to create a masterpiece by combining important resources needed to optimize project management.

- **Trello** is currently doing great things when it comes to the UI and real time updates, but the addition of Gantt charts could help with simplifying the design schedule.

- **Jira** has exceptional tracking with bugs and tasks, but with its limited file size upload and a UI catered to more experienced users, it's not meeting every opportunity.

- **Microsoft Planner** has a very intuitive UI which is very easy to learn and navigate, but the limited amount of check boxes per task and the difficulty of transferring content between tasks is preventing it from growing.

- **Microsoft Power BI** provides exceptional data integration and visualization capabilities, but complexity of advanced analytics and limitations with large data sets may put a halt on some projects.

- **Monday.com** has some excellent tracking features when it comes to daily tasks and communication, but it's lack of Gantt chart features, time tracking and expense tracking per task seem to be preventing Monday.com from extending its reach.

Our Team

- **Team structure**: Our project will divide the work efficiently between team members by assigning members to lead roles. These leads are not responsible for all the work in their work area, but will head and organize the effort in their work area. The different roles will be as follows:
  - Project Manager
  - Lead Back-End Designer
  - Lead Front-End Designer
  - Lead Systems Designer
  - Documentation Lead
  - Quality Assurance Lead

- **Balancing experience with requirements:** Our project will be as successful as our team members' collective and individual levels of knowledge and understanding. Diversifying tasks based on individual strengths, researching, and collaborating are all important aspects that come into play here. This will help contribute to our team excelling at all areas of this project and help make collaboration smoother.

- **Utilizing collaboration tools:** To ensure our project is on track, our team will be using multiple collaboration tools such as Slack, Trello, and G Suite. These tools will enable us to stay on the same page and work together, despite the challenges that come with the inability to meet in-person.

Milestones

1. Requirements Gathering

    Draft deadline: June 24, 2020

    To begin our project, we will set clear business, functional, and non-functional requirements into a Software Requirements Specification (SRS) document, prioritized with the MOSCOW method. These will be recorded with different options such as use cases, UML, and user stories that will later be validated and verified.

    This document will also briefly discuss the collaboration tools that were used by our team to gather these requirements. These tools' effectiveness will be assessed.

2. High-Level Design

    Draft deadline: July 1, 2020

    The High-Level Design (HLD) document will provide an overview of our application's design and discuss the hierarchy. The HLD will break the application into different components such as security, hardware, user interface, internal and external interfaces, databases, data flows, reports, and architecture. UML Diagrams will be featured in this document.

3. Low-Level Design

    Draft and final deadline: July 10, 2020

    The Low-Level Design (LLD) document will go into detail about the elements stated in the HLD. This document will discuss potential classes and database tables for our application. Pseudo code will be included so programmers can immediately begin coding after reading.

4. Design Documentation Package

    Final deadline: July 22, 2020

    The SRS and HLD will be updated throughout the project to support the final version of the LLD and any changes we decide to make throughout the course of the project. At the end of the project, the design product package will include the final version of the SRS, HLD, and LLD.