**CEN 4010 Principles of Software Engineering**

**Spring 2023**

Milestone 1 Project Proposal and High level Description

RememberAll

Team 6

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| Revision History | | |
| **Name** | **Revision Dates** | **Revision Description in Github** |
| Kyle Palmer | 03/02/2023  03/03/2023 | Update ReadMe  Update ReadMe |
| Abby Denton | 03/02/2023 | Update ReadMe |
| Juan Rivera | 03/02/2023 | Update ReadMe |
| Christopher Rodriguez | 03/01/2023  03/02/2023 | Documentation Created  Update ReadMe  Data definition created |

1. Executive Summary

If you're seeking for a fresh and easy way to remain on top of your day-to-day obligations, go no further than our smartphone reminder app. The application's intuitive layout makes it simple to schedule reminders for future activities and appointments, ensuring that users never forget a single detail. Our mobile reminder software helps people live more relaxed lives by keeping track of their daily responsibilities, which is one of its main advantages. Users will never miss a meeting or a deadline because our app is designed to reliably notify them at the time, they need it. Additionally, the software can be customized to meet the needs of the user, allowing them to prioritize tasks and set reminders. Our smartphone reminder app is novel because of how easy it is to use. We designed our reminder software with the user in mind, making it easy to use even for people who don't know much about technology.

The user-friendliness of the software makes it accessible to anyone who wants to use it. Our mobile reminder app has value because it can streamline people's daily routines, allowing them to save time and work more efficiently. Our application is ideal for busy people who need to keep track of multiple tasks and stay organized. Individuals can avoid the stress and hassle of forgetting important events and appointments by using our application. People can manage their daily tasks and appointments with the help of the mobile reminder application, which is easy to use and convenient. Location- based reminders are also essential features of the application. This will allow users to set reminders based on their location, such as reminding them to buy groceries when they are near a supermarket. This feature requires the app to have access to the devices location based services.

The application's novelty lies in its simplicity and effectiveness, and its key advantages include customization, timely notifications, and user-friendliness. Individuals can simplify their lives, reduce stress, and increase productivity by utilizing the application. The application has value because it simplifies daily routines and helps people avoid forgetting important events and appointments. In general, the mobile reminder app is a great tool for anyone looking for a quick and easy way to keep track of their daily tasks and appointments.

In conclusion, our mobile reminder app is a useful tool that can make life easier, lessen stress, and make people more productive. Timely notifications, customization, and ease of use are among its primary benefits. It is novel because it is easy to use and works well, and its value comes from helping people save time and stay organized. If you're looking for a quick and easy way to keep track of your daily tasks and appointments, our mobile reminder app is a great choice.

2. Competitive Analysis

In today's fast-paced world, the demand for reminder apps has increased significantly. With so many apps available in the market, it becomes essential to analyze the competition and identify the key players to create a unique selling proposition for a new reminder app. A competitor for this remind app would be “Todoist”.

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| **Key Features** | **Todoist** | **RemindAll (Our Planned App)** |
| Customization | Flexible | More Flexible |
| Task Organization | Organization | Better Organization |
| Communication/Collaboration | Teamwork Functionality | More Advanced |
| Smarter Automation | Basic | Advanced |
| User-Interface | Friendly for User | More Friendly for User |

In comparison to Todoist, our planned product will have some additional advantages:

1. More customization options: Our product will offer greater flexibility for users to customize their task lists and workflows, allowing them to tailor the product to their individual needs and preferences.

2. Enhanced task organization: Our product will provide more advanced organizational features, such as task grouping and prioritization, making it easier for users to manage and prioritize their to-do lists.

3. Better communication and collaboration: Our product will facilitate seamless communication and collaboration among teams, with real-time updates and commenting functionality.

4. Smarter automation: Our product will include more intelligent automation features, such as smart suggestions for task completion and personalized task recommendations based on usage history.

5. Intuitive user interface: Our product will have a user-friendly interface with a modern and sleek design, making it easy for users to navigate and use the product.

Overall, our planned product aims to build upon the core features of Todoist while offering more advanced functionality and customization options, enabling users to work more efficiently and effectively.

3. Data definition

App ID: Every app deployed to the App Engine is identified by the Application ID and its version.

App update: App update happens when developer offers new features in an app or change the look or design of an app.

Binary search: to get stored and search of the different reminders.

Data form receiver: a form that will hold all the data that a user enters for a specific task.

Delay notification: if the user wants another reminder for them in a 5 min spam.

End User: The person for which the app was intended for.

Front-end frameworks: are JavaScript libraries with CSS and Bootstrap components that assist you in creating a website, web app, or mobile app.

Metadata: Data that defines and markets an app to consumers, like title, keywords, description, icon, screenshots, company name, and category.

Notification Message: message sent to the user when the reminder is activated.

Offline use: since it’s a reminder app it should be able to be used with no internet.

User: the person that decides to put a reminder.

System: in this case our software is one of the entities having a direct relationship with the end user

Type of Users: reminder app has a broad range of users, basically anyone that can use a mobile phone can be a target user, since all of need reminders of tasks.

4. Overview, scenarios and use cases.

This reminder app is intended to help users remember important events, tasks, and Important things that the users want to save daily. For example, a college student will use this app in different scenarios such as remembering an assignment, remembering a doctor's appointment, remembering a particular task from work, remembering to buy something from the store, or maybe make a phone call to check on their parents or partner. This college student will take out his or her phone to type a message and set a time and date for the reminder and then continue with his day until the task is completed. This college student does not need to have any skill other than knowing how to use a mobile phone to set reminders in the app. Besides that, it does not require any specific skill.

5. Initial list of high-level functional requirements

1. Allow users to create multiple reminder lists for different purposes: This requirement allows users to create and organize their reminders into separate lists based on different categories such as work, personal, fitness, etc. This helps users keep their reminders organized and easy to manage.
2. ﻿﻿﻿Provide a range of customization options for each reminder: Users need the ability to customize their reminders as per their needs. This includes setting a specific date and time, location, repeating frequency (daily, weekly, monthly, yearly), and priority level. This ensures that users receive reminders at the right time and with the right frequency.
3. ﻿﻿﻿Allow users to categorize their reminders using tags or labels: This requirement allows users to add tags or labels to their reminders for easy sorting and filtering. For example, users can add the "work" tag to their work-related reminders, and the  
   "personal" tag to their personal reminders.
4. ﻿﻿﻿Provide various reminder types: Users may prefer different types of reminders, such as simple notifications, sound alarms, or vibration. Providing multiple reminder types helps users choose the most appropriate type for their specific needs.
5. ﻿﻿﻿Enable users to share their reminder lists with other users or export them to other apps or devices: This requirement allows users to share their reminder lists with others, such as family or colleagues or export them to other apps or devices. This ensures that users can access their reminders from any device or share them with others easily.
6. Provide a snooze function: This requirement allows users to delay a reminder for a specific period of time, such as 5 minutes or 10 minutes. This is helpful when users are busy or not able to attend to the reminder application immediately.
7. Offer a user friendly interface: The app will have a user friendly interface with easy navigation, intuitive controls and an appealing design, This will ensure that the users can use the app without any difficulty and enjoy a good user experience.
8. Allows users to set reminders based on their location: This requirement allows users to set reminders based on their location, such as reminding them to buy grocery if they are near a supermarket.

6. List of non-functional requirements

1. Performance: The mobile app must be fast and responsive, with minimal loading times and low memory consumption. The app must respond to user input within 1 second.

2. Usability: The mobile app must be intuitive and user-friendly, with clear and concise instructions for all features. The design must be optimized for mobile devices and should support gestures like swipe and pinch.

3. Accessibility: The mobile app must meet the standards of WCAG 2.1, with support for screen readers, large text sizes, and high contrast modes. The app must be compatible with both iOS and Android accessibility features.

4. Security: The mobile app must ensure the privacy and security of user data. All user data must be encrypted and stored securely. The app must be able to detect and prevent unauthorized access, tampering, or data loss.

5. Availability: The mobile app must have a minimum uptime of 99%, with downtime not exceeding 2 hours per month for maintenance. The app must be available for download from both Apple App Store and Google Play Store.

6. Scalability: The application must be able to handle increased user load without performance degradation, and scale horizontally as needed.

7. Storage: The application must be able to store large amounts of data, with a minimum of 1GB per user.

8. Fault Tolerance: The application must be resilient to hardware and software failures and should have a disaster recovery plan in place to ensure data availability in the event of a catastrophic failure.

7 High-level system architecture

Our mobile reminder app uses Node.js and Express, two very popular tools in the JavaScript ecosystem.

Node.js provides an event driven model which makes it very light weight and efficient.

Express on the other hand, is a web application framework that simplifies the process of building APIs and web applications.

The integration of both allows our application to handle requests and responses efficiently, which in turn makes it fast and responsive.

Additionally, the usage of JavaScript for both the client and server side reduces development time and simplifies code maintenance.

Programming languages:

1.Javascript

2.CSS

3.HTML

Tools:

1.Git

2.Github

3.Visual Studio Code

Supported Browsers:

1.Google chrome

2.Safari

3.Microsoft edge

Core APIs:

1.Google Maps API

2.Stripe API

3.OpenWeatherMap API

8. Team

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| Team Members | Roles |
| Kyle Palmer | Scrum Master |
| Abby Denton | Developer |
| Juan Rivera | Product Owner |
| Christopher Rodriguez | Developer |

9 Checklist

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| a) Team decided on basic means of communications | DONE, ON TRACK |
| b) Team found a time slot to meet outside of the class | DONE, ON TRACK |
| c) Front and back-end team leads chosen | DONE, ON TRACK |
| d) Github master chosen- DONE, ON TRACK | DONE, ON TRACK |
| e) Team ready and able to use the chosen back and front-end frameworks | DONE, ON TRACK |
| f) Skills of each team member defined and known to all | DONE, ON TRACK |
| g) Team lead ensured that all team members read  the final M1 and agree/understand it before submission | DONE, ON TRACK |