
Software Requirements Specification

for

JA Time Management App

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1. Introduction

1.1 Purpose

The purpose of this project is to create a time management application in order to improve the productivity, organization, and health of students attending Jewels Academy.

1.2 Document Conventions

This Document was made using the IEEE template for SRS Documents.

1.3 Intended Audience and Reading Suggestions

- Users
- Developers
- Project Managers
- Project Sponsors

1.4 Product Scope

The goal is to create an application that is easily accessible to students in order to better themselves and improve their time management. We look to better the health of the students and help them become as successful and productive as possible in every aspect of their lives.

1.5 References

IEEE Template for System Requirement Specification Documents: [IEEE Software Requirements Specification Template](#)

2. Overall Description

2.1 Product Perspective

This is a new product that will be used within Jewels Academy for the time being. The goal of creating this is to provide students of Jewels Academy a way to better manage their time and maintain their mental health.

2.2 Product Functions

Dashboard

- Display upcoming tasks and reminders
- Show relevant news
- Display positive quote of the day/week
- Display weather

Task List

- Add task/goal
- Set task/goal
- Set task/goal severity
- Check off task/goal
- Set which tasks use the notifications system

Calendar

- Filter by events or task type
- Display holidays
- Integrates Canvas' version of its calendar, with some of its features
 - Display assignments, exams, and other due dates
- Potentially also integrates other calendar-themed apps, such as Google Calendars and Outlook

Account System

- Login/Logout/Register
- Standard Profile Settings
- Notification/Reminder Settings
- Two Factor Authentication

Notification System

- Adjust notification intervals
- Adjust notification frequency
- Add/Remove notifications

Notepad

- Touch-controlled note-taking
- Store previous notes
- Potentially integrate with Google Drive or similar program

Mental Journal

- Add focus / breaktime / meditation intervals
- Set focus / breaktime / meditation intervals
- Add journal entry
- Store previous journal entries
- Emote daily feelings
- Fill in daily mood color
- Display mood color chart

Canvas Integration

- Integrates Canvas' version of its calendar
- Integrates a student's classes and their related assignments

2.3 User Classes and Characteristics

- Students, from the range of 4th grade to college level, who wish to better manage their time to assist in improving their mental health

2.4 Operating Environment

- Able to work within any smartphone, iOS and Android

2.5 Design and Implementation Constraints

- Access to the web is required for some of the application's features.

2.6 User Documentation

- Basic knowledge of using phone apps is adequate to use this application.

2.7 Assumptions and Dependencies

- There are no applicable assumptions or dependencies.

3. External Interface Requirements

3.1 User Interfaces

- Buttons and links: for app traversal.
- Lists: for creating, setting, and removing tasks, goals, and reminders.
- Calendar: for events, extracurriculars, classes, tasks, reminders, and deadlines.

3.2 Communications Interfaces

- This project will require internet connectivity.
- This project will require cellular network connectivity
- This project will require GPS connectivity

4. System Features

4.1 Dashboard

4.1.1 General Information

4.1.2 News

4.1.3 Reminders

4.1.4 Positive Quotes

4.1.5 Weather

4.2 Calendar

4.2.1 Calendar

4.2.1.1 Change Timescale (Daily, Weekly, Monthly)

4.2.1.2 Include Holidays

4.2.2 Events

4.2.2.1 Filter Results

4.2.3 Calendar Integration (Outlook, Google, etc.)

4.3 Notes / Reminders

4.3.1 Hand Written Notes

- 4.3.2 Typed Notes
- 4.3.3 Create Reminder
- 4.3.4 Cloud Drive Integration (Google Drive, Microsoft OneDrive, etc.)

4.4 Journal / Mental Health

- 4.4.1 Diary / Journal
 - 4.4.1.1 Color Day Rating
 - 4.4.1.2 Emoticon / Emoji Day Rating
- 4.4.2 Breaktime / Meditation Timer

4.5 Task List / To-Do List

- 4.5.1 Add Task
- 4.5.2 Set Goal / Repeated Event
- 4.5.3 To-Do List
 - 4.5.3.1 Change Timescale
- 4.5.4 Goal Progression Reports
- 4.5.5 Focus Timer

4.6 Class Assignments

- 4.6.1 Canvas Integration
 - 4.6.1.1 Homework Due Dates
 - 4.6.1.2 Upcoming Assignments
 - 4.6.1.3 Class Grades
- 4.6.2 Link to 4.5.3 and 4.2.1

4.7 Account Settings

- 4.7.1 User Profile
- 4.7.2 Login / Register New User
 - 4.7.2.1 Logout
 - 4.7.2.2 Setup Two-Factor Authentication
 - 4.7.2.3 Recover Username / Email / Password
- 4.7.3 Change Display Theme (Dark, Light, etc.)
- 4.7.4 Change Notification Settings

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- Login requests shall be processed within 2 seconds.
- Page transitions shall occur within 1 second.
- Form submission shall occur within 5 seconds.

5.2 Security Requirements

Data within the application will be encrypted with up to date network security protocols and all user passwords will be salted and encrypted. User's will be required to answer a security question in order to change their password, and multifactor authentication will be required for canvas integration.

5.3 Software Quality Attributes

The three most important quality attributes of the application are it's usability, interoperability, and modifiability. Providing students with a clean and easy to navigate user interface will be imperative in order to ensure that there's a high level of satisfaction with the user experience. Because many students will use the application on various types of smart devices, interoperability will ensure that the app can be used on both Android and IOS devices. Over time, new features will be added to the application so ensuring that it's functionality is implemented with a high degree of modifiability will also be a main concern.

5.4 Business Rules

- General users can access any functionality that does not cause changes to the software, or the administrative functionality given to administrative users.
- Administrative users can access all functionality related to testing and monitoring as well as all functionality accessible to general users.
- Developers can access all functionality as well as development tools and the source code of the application.

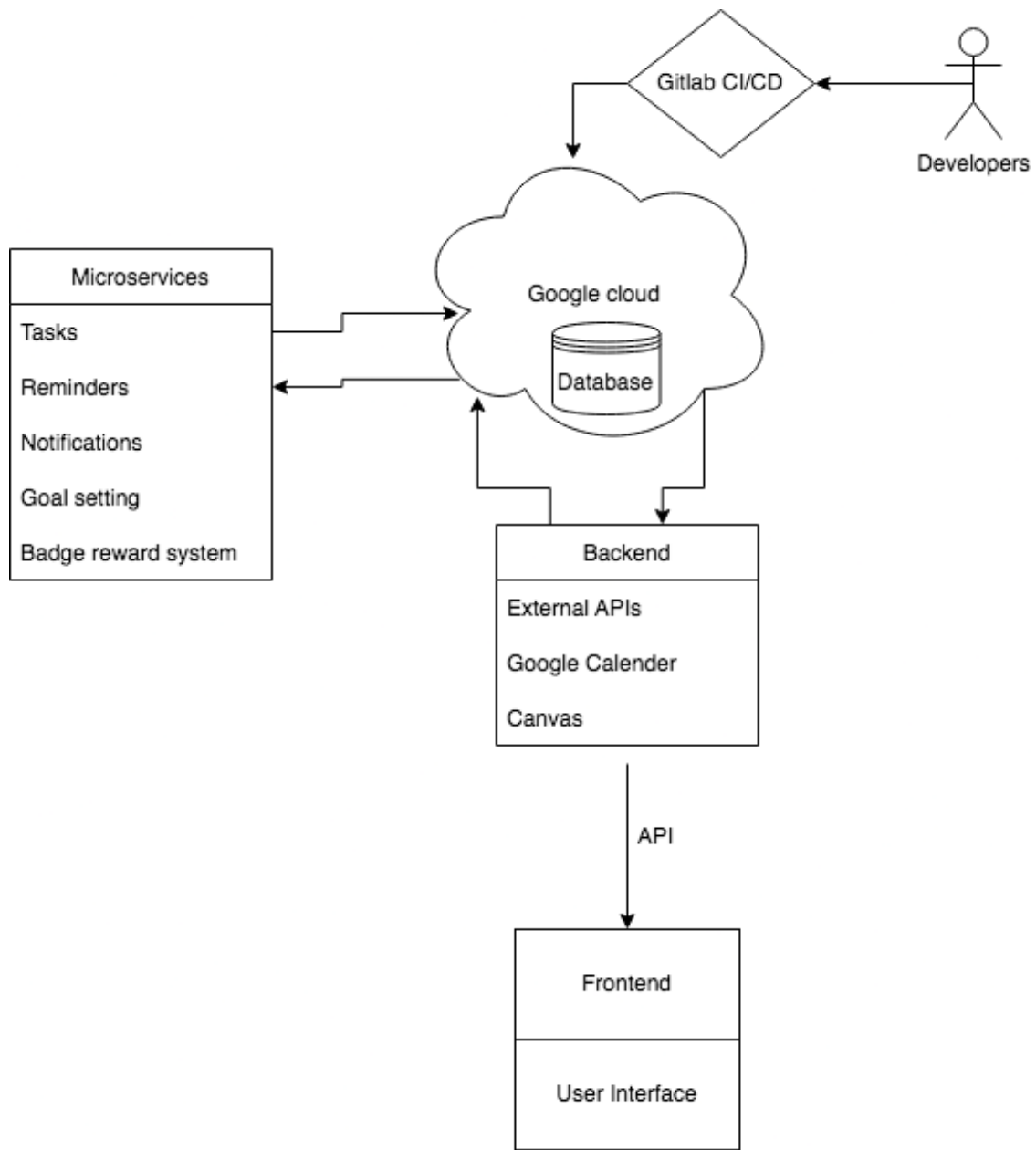
5.5 Risks

Risk	Severity (1-10)	Probability (1-10)	Combined Risk Value (Severity * Probability)	Rank
Login Security	8	8	64	1
New Group	2	10	20	5
Communication Issues	7	5	35	3
GPS / Mapping	3	3	9	6
Page Access Speed	4	8	32	4
Team Knowledge	4	9	36	2

6. Architecture and Technologies

6.1 Overview of system architecture

The system's architecture will resemble the diagram below. Developers will use GitLab's continuous integration and continuous deployment features in order to organize and deploy development contributions.



6.2 Necessary Technologies be used to create the application.

The following technologies and development models will

Backend Technologies	Frontend Technologies	Included in Both
Spring for API (Java) - Will use IntelliJ as IDE	Integration with both Android and IOS (use of Ionic or Xamarin)	GitLab for development
Canvas API Integration	Android Studio for IDE	CI/CD
MySQL	Graphical Design of the Application (Figma)	Trello Story Boards
Set of User Information API's		Agile / SCRUM Development Model
Set of API's for goals and tasks		
Postman for testing API		
Possible cloud integration for database		
Encryption for user data		
Outlook API for calendar		