Software Requirements Specification (SRS)

Project: Tasks App

Version: 1.0

Date: August 16, 2025

# 1. Introduction

## 1.1 Purpose

To assist students in staying organized and on track with their academic workload

## 1.2 Scope

- task management

- assignment tracking

## 1.3 Intended Audience

- students

# 2. System Overview

A mobile application that helps students manage their tasks and assignments

# 3. Functional Requirements

## 3.1 User Registration [0]

**Description:**

The application should allow users to create new accounts by providing their information.

**Priority:**

High

**Subtasks:**

- Implement user registration form with fields for name, email, password

- Validate user input for required fields and format

- Hash and store user passwords securely

- Send a confirmation email to the registered user

- Allow users to reset their passwords

## 3.2 User Login [1]

**Description:**

The application should allow registered users to log in securely using their credentials.

**Priority:**

High

**Subtasks:**

- Implement username and password authentication

- Store user credentials securely

- Handle failed login attempts

- Provide a password reset functionality

## 3.3 Task Creation [2]

**Description:**

The application should allow users to create new tasks with details such as title, description, due date, and priority.

**Priority:**

High

**Subtasks:**

- Allow users to input a title for the task.

- Enable users to add a description for the task.

- Provide a date picker for setting a due date for the task.

- Implement a priority level selection (e.g., High, Medium, Low).

## 3.4 Task Management [3]

**Description:**

The application should allow users to view, edit, and delete existing tasks.

**Priority:**

High

**Subtasks:**

- Display a list of all user tasks

- Allow users to edit existing task details (title, description, due date)

- Enable users to delete tasks

- Implement search functionality to find specific tasks

## 3.5 Task Prioritization [4]

**Description:**

The application should allow users to prioritize tasks using different methods, such as assigning priority levels or using a drag-and-drop interface.

**Priority:**

High

**Subtasks:**

- Implement priority level system with configurable options (e.g., High, Medium, Low)

- Develop drag-and-drop interface for reordering tasks based on priority

- Display prioritized tasks in a clear and visually distinct manner

## 3.6 Task Reminders [5]

**Description:**

The application should provide reminders to users about upcoming tasks, configurable by the user.

**Priority:**

High

**Subtasks:**

- Implement push notification integration for reminders.

- Develop functionality for users to set reminder frequency.

- Create an option for users to choose email or push notifications for reminders.

- Design user interface for setting up task reminders.

## 3.7 Task Completion Tracking [6]

**Description:**

The application should allow users to mark tasks as completed and track their progress.

**Priority:**

High

**Subtasks:**

- Display a visual indicator for completed tasks.

- Allow users to mark tasks as incomplete.

- Show the overall completion percentage for a user's tasks.

- Enable users to filter tasks by completion status.

## 3.8 Synchronization [7]

**Description:**

The application should synchronize task data across multiple devices.

**Priority:**

High

**Subtasks:**

- Sync tasks between the mobile app and a cloud database

- Implement conflict resolution for concurrent edits

- Ensure data integrity during synchronization

## 3.9 Notifications [8]

**Description:**

The application should notify users about new tasks, reminders, and other important events.

**Priority:**

High

**Subtasks:**

- Implement push notifications for new tasks and reminders

- Display in-app notifications for important events

- Allow users to customize notification settings (frequency, type)

## 3.10 User Profile Management [9]

**Description:**

The application should allow users to manage their profile information, including settings and preferences.

**Priority:**

High

**Subtasks:**

- Allow users to edit their personal information (name, email, etc.)

- Provide options for users to set notification preferences

- Enable users to change their password

- Allow users to upload and manage their profile picture

## 3.11 Data Security [10]

**Description:**

The application should implement measures to protect user data and privacy.

**Priority:**

High

**Subtasks:**

- Implement data encryption for sensitive user information both in transit and at rest.

- Utilize robust authentication and authorization mechanisms to ensure only authorized users can access data.

- Regularly update security protocols and libraries to mitigate known vulnerabilities.

- Implement data access logging and monitoring to detect and respond to potential security breaches.

# 4. Non-Functional Requirements

**NFR1**: The application should be responsive and load quickly

**NFR2**: The application should be secure and protect user data

**NFR3**: The application should be easy to use and navigate

**NFR4**: The application should be compatible with different mobile devices and operating systems

**NFR5**: The application should have offline functionality to allow users to access tasks even without internet connection