**Software Requirements Specification (SRS) Document**

**Day Planner Application**

**Team Name: Vitality**

|  |  |
| --- | --- |
| **Document Version:** | **2.0** |
| **Date:** | **20/09/2023** |
| **Authors:** | * VATSAL KR. SHARMA (21BCS11884) * DIVEEN SINGH RATAUL (21BCS3828) * SYED MEHDI ABBAS (21CBS1016) * SUMIT (21BCS6738) * RANIA (21BCS6413) * ROHIT (21BCS4860) |

**Table of Contents**

**1. Introduction**

1.1 Purpose

1.2 Scope

1.3 Definitions, Acronyms, and Abbreviations

1.4 Problem Statement

1.5 Objectives

1.6 Target Audience

**2. Product Description**

2.1 Functional Features

2.2 Operating Environment

2.3 Design and Implementation Constraints

2.4 User Documentation

2.5 Assumptions and Dependencies

2.6 Success Metrics

2.7 Unique Features

2.8 Different Scenarios

**3. System Specifications**

3.1 External Interface Requirements

3.1.1 User Interface

3.1.2 Hardware Interfaces

3.1.3 Software Interfaces

3.1.4 Communication Interfaces

3.2 Functional Requirements

3.3 Non-Functional Requirements

3.3.1 Performance Requirements

3.3.2 Security Requirements

3.3.3 Reliability Requirements

3.3.4 Compatibility Requirements

**1. Introduction**

**1.1 Purpose**

The purpose of this Software Requirements Specification (SRS) document is to define the requirements for the development of a **Day Planner Mobile Application** which makes task management easier and follows the idea of supervision. This app allows user to input tasks which can be prioritized by allowing task overwrite for the most important tasks and set reminders accordingly. This document outlines the features, functionality, and constraints of the application to guide its design and development.

**1.2 Scope**

The Day Planner Web Application is intended to provide users with a digital tool for managing their daily schedules, events, tasks, and reminders. It aims to address the problem of disorganized time management by providing users with a comprehensive solution to plan, prioritize, and manage their daily activities efficiently.

**1.3 Definitions, Acronyms, and Abbreviations**

* SRS: Software Requirements Specification
* UI: User Interface
* API: Application Programming Interface

**1.4 Problem Statement**

In today's fast-paced world, individuals often struggle with managing their time and activities effectively. The challenges include:

* Disorganization: Many people lack a centralized system to record and manage their daily tasks, appointments, and events. This leads to confusion, missed deadlines, and overall inefficiency.
* Prioritization Issues: Without a structured way to prioritize tasks, users may find themselves focusing on less important activities while neglecting crucial ones.
* Time Wastage: Users often spend excessive time switching between various tools and applications, such as calendars, to-do lists, and note-taking apps, causing interruptions and inefficiencies in their daily routines.
* Lack of Flexibility: Existing solutions may not offer the flexibility users need to adapt to changing schedules, unforeseen events, or last-minute adjustments.
* Limited Mobility: Users need a solution that can accompany them wherever they go, providing easy access to their schedules and tasks on their mobile devices.

**1.5 Objectives**

The primary objectives of the Day Planner Mobile Application are as follows:

* To provide users with a centralized platform for scheduling, managing, and organizing their daily activities, tasks, appointments, and events.
* To assist users in prioritizing tasks and setting reminders, ensuring they can focus on high-priority activities.
* To save users time by offering a single, integrated solution for planning and time management.
* To offer flexibility and adaptability to users' changing schedules, allowing them to easily modify plans and respond to unforeseen events.
* To provide a mobile application that is compatible with Android platform, ensuring accessibility for a wide user base.

**1.6 Target Audience**

* College and University Students:

The Day Planner Mobile Application will be an ideal companion for students as it will act as an academic planner for them by scheduling their classes, labs, and study sessions. They can also manage their extracurricular activities. Work-Study Balance: Efficiently juggle part-time jobs with your academic schedule. Coordinate your work shifts and class times seamlessly.

* Working Professionals:

Working professionals who need to manage their work tasks, appointments, and meetings efficiently. They can easily schedule and manage meetings and prioritize their tasks and projects by keeping a track of client meetings, supplier interactions, and important business appointments. They can also manage financial tasks, such as budgeting.

**2. Product Description**

**2.1 Functional Specifications**

From a user's perspective, the application will provide an intuitive and efficient experience for managing daily tasks and activities. Here's how the system will behave:

**Feature 1: User Registration and Authentication**

* User Action: Press the "Sign Up" button.

A screen appears prompting the user to enter their email address and create a password. After inputting this information, they receive a verification email.

* User Action: Select the "Log In" option.

A login screen appears, requesting the user to enter their username and password. Upon successful login, they gain access to their personalized dashboard.

* Authentication tokens are issued to verified users.

**Feature 2: Task Management**

|  |  |
| --- | --- |
| **USER ACTION** | **EXPECTED RESPONSE** |
| Tap the "Add Task" button. | A task creation form pops up, allowing the user to input the task name, set a due date, and add relevant notes. After submission, the task is added to their to-do list. |
| Long-press a task to access options. | A context menu appears, allowing the user to assign a priority level (e.g., high, medium, low) to the task by selecting the appropriate color code or label. |
| Tap the checkbox beside a task. | The checkbox is marked, indicating that the task has been completed. |
| Tap on a task to open it. | A task details screen appears, providing space for the user to add or edit task descriptions or notes. |
| Select the "Categorize" option when creating or editing a task. | A list of predefined categories or an option to create custom categories is displayed, allowing the user to organize tasks. |
| Long-press and drag a task to another time slot. | The task is moved to the selected time slot, allowing the user to change its order easily. |
| Access a task's details screen. | A progress bar or percentage completion indicator shows the user's progress on ongoing tasks. |

**Feature 3: Time Management**

|  |  |
| --- | --- |
| **USER ACTION** | **EXPECTED RESPONSE** |
| Tap the "Set Reminder" option for a task. | A reminder setup screen appears, allowing the user to configure when and how they want to be reminded about the task. |
| Navigate to the "Weekly Timesheet" section. | User can easily monitor and record the time spent on tasks throughout the entire week. |
| Access the "Daily Task List" for the day. | User will find a comprehensive list of tasks scheduled for the specific day. |
| Select a task and tap on the "Task Timer" option. | A timer will be displayed, allowing users to start and stop it as they work on the individual task. This timer logs the time spent on that specific task, providing accurate time-tracking data. |

**Feature 4: Customization**

* Custom Tags: User can add tags (doing/completed/cancelled) to the tags.
* Layouts & Themes: User can change the theme(light/dark) and can also change the colour schemes of the layout.

**Feature 5: Layout**

* Priority Task Display: According to the actual time, display the tasks according to that slot on the top.
* Activity Stream: Display all the activity updates.
* Calendar view: User can view all the events/tasks along-with their deadlines.
* Summary view: View of all the key events for the previous, current, and the following week.

**Feature 6: Reports and Analytics**

* Task Reports: These reports will help users track their progress on various projects or tasks.
* Time reports: A detailed view of the time spent by a user on the tasks along with the time spent on it.
* Total Hours Worked: Display the total hours worked by summing up the daily totals.

**Feature 7: Data Backup and Recovery**

* Users can create manual backups of their data.
* In case of data loss, users can restore their data from a backup.

**Feature 8: User Profile**

* Users can update their profile information (e.g., name, profile picture).
* Users can customize notification preferences.
* Language and time zone settings can be adjusted.

**Feature 9: Backtrack and Postpone**

Incomplete or pending tasks are clearly displayed to users. They have the option to backtrack on completed tasks if needed. Additionally, users can postpone tasks to a future date or time, providing flexibility in managing their schedule.

**Feature 10:** Widgets: The application offers widgets for easy access on the user's device. These widgets provide quick access to the user's task list and upcoming events, enhancing convenience and efficiency.

**2.2 Operating Environment**

The software will be compatible with the Android OS (versions 8.0 and above).

**2.3 Design and Implementation Constraints**

* The software will be developed using Flutter for front end MySQL to manage the database and Flask for the back-end development.
* The user interface will be designed to be intuitive and user-friendly.
* Data storage and synchronization will require internet connectivity.

**2.4 User Documentation**

User documentation, including user manuals and online help, will be provided to assist users in learning how to use the software effectively.

**2.5 Assumptions and Dependencies**

* The software assumes that users have access to a compatible device and internet connectivity.
* Dependencies may include third-party libraries, APIs, or services for features like calendar synchronization.

**2.6 Success Metrics**

Success metrics for the can help determine its success and impact. Here are key metrics to consider:

1. **User Adoption**: Measure downloads, registrations, and active users.

2. **User Engagement**: Track task creation, completion, and updates.

3. **Retention Rate**: Monitor how many users continue to use the app over time.

4. **Reminders Effectiveness**: Assess click-through and response rates for reminders.

5. **User Feedback**: Gather feedback through surveys, reviews, and direct communication.

6. **Bug Reports and Support Requests**: Monitor the number of bug reports and support requests.

7. **App Store Ratings and Reviews**: Keep an eye on app store ratings and user reviews.

These metrics collectively help determine the app's success and its impact on users' daily planning and time management.

**2.7 Unique Features**

Existing task management systems, such as Google Tasks, Todoist, and Microsoft To-Do, offer valuable tools for organizing daily activities. However, our Day Planner Application introduces unique features that set it apart:

1. **Priority Tasks**: While existing apps allow task management, our app stands out by visually emphasizing priority tasks with larger fonts. This helps users focus on what matters most.

2. **Frequent Updates**: Unlike others, our app proactively prompts users with constant task updates, ensuring nothing slips through the cracks. It's a proactive approach to task management.

3. **Backtracking**: The ability to easily backtrack on completed tasks or postpone them to a future date provides users with unmatched flexibility and adaptability.

4. **Task Duration**: Our app lets users set task durations and sends timely reminders for updates. This feature helps users allocate their time more efficiently, a unique aspect in task management.

5. **Widgets**: Offering widgets for quick access from the device's home screen enhances convenience, making our app an even more user-friendly and accessible tool.

These unique features of the Day Planner Application make it a standout choice for individuals seeking not only task organization but also a proactive and flexible approach to daily planning and time management.

**2.8 Different Scenario**  
  
**Scenario 1: Sarah, the Working Professional**

Meet Sarah, a marketing manager at a fast-paced advertising agency. Her days are filled with meetings, client pitches, and project deadlines. She uses the "Daily Planner Application" to stay organized:

**Morning Routine**:

- Sarah opens the app to check her tasks for the day.

- She sees her high-priority task, a client presentation, displayed prominently with a larger font.

- The app reminds her of an important client meeting at 2:00 PM.

**Throughout the Day**:

- Sarah receives push notifications from the app reminding her to update task statuses.

- After completing a successful presentation, she marks it done and feels a sense of accomplishment.

- She backtracks on a task she initially marked as done when she realizes it needs further revision.

**End of Day**:

- The app displays pending tasks, including follow-up emails and project planning for the next day.

- Sarah adjusts her schedule, postponing some tasks to allocate more time for a new client request.

The Day Planner Application helps Sarah manage her hectic workdays efficiently, ensuring she doesn't miss important meetings and stays on top of her tasks.

**Scenario 2: Emma, the Busy Mom**

Emma is a stay-at-home mom with three children, each with their own school schedules, extracurricular activities, and household chores. She relies on the Day Planner Application to keep everything in order:

**Morning Chaos**:

- Emma opens the app to see her daily plan, which includes school drop-offs and pickups, soccer practice, and grocery shopping.

- The app sends her a notification for her son's 4:30 PM soccer practice.

**Managing Household Chores**:

- Emma uses the app to list household chores and errands with various priority levels.

- She marks grocery shopping as a high-priority task and sees it displayed more prominently.

- Throughout the day, she updates task statuses and feels a sense of accomplishment as she checks off completed chores.

**Evening Adjustments**:

- Emma reviews the app's list of pending tasks, noticing some unfinished chores.

- She postpones cleaning the garage to the weekend and adjusts her schedule accordingly.

With the "Daily Planner Application," Emma successfully manages her family's busy schedule and household tasks, ensuring everyone's needs are met, and she has time for herself too

**3. System Specifications**

**3.1 External Interface Requirements**

**3.1.1 User Interface**

The user will be able to track his/her progress, check whether the scheduled task is completed or not and if there is any need to modify his schedule for the particular day. We will be adding specific features like tracking of tasks so that the user will be notified when an important task is upcoming. We will also allow user to add reminders for 5 mins before the task or an hour before the task.

|  |  |
| --- | --- |
| Home Screen: | * The home screen serves as the app's central hub. * At the top, there's a date indicator, displaying the current day or week. * Below, a summary dashboard presents key information: * Total tasks for the day. * Upcoming events and appointments. * Time tracking statistics for the current day. * A navigation menu icon or button provides access to various app sections. |
| Task Section: | * The "Tasks" section allows users to create, manage, and track their tasks. * A prominent "Add Task" button at the bottom facilitates quick task creation. * Tasks are displayed as a scrollable list, each with the task name. * To the left of each task, there's a checkbox for marking tasks as completed. * Users can tap on a task to reveal task details, including: * Due date and time. * Task priority level (color-coded or labeled). * Task notes or descriptions. * Tasks can be categorized into different groups, like work, personal, or custom categories. * Users can rearrange tasks by dragging and dropping them into their preferred order. * A progress bar or percentage indicator visually shows task completion. |
| Time Tracking: | * The "Time Tracking" section assists users in monitoring how they spend their time. * Users can start and stop timers for individual tasks using a "Task Timer" button. * A "Daily Timesheet" displays tasks with timers, showing time spent on each. * The "Weekly Timesheet" provides a comprehensive view of time spent on tasks throughout the week. |
| Calendar: | * The "Calendar" section offers users an overview of scheduled events and tasks. * Events and appointments are represented in a calendar view. * Users can easily add, edit, or delete events by tapping on calendar entries. * Categories or color codes help distinguish different types of events. * Users can switch between different views, including day, week, and month. |

**3.1.2 Hardware Interfaces**

Any compatible device with a stable internet connection.

**3.1.3 Software Interfaces**

External applications such as the device’s Calendar application, email clients, etc.

**3.1.4 Communication Interfaces**

The software will work with external system features such as Time and Date, Calendar, email clients,

**3.2 Functional Requirements**

* Feature 1: User Registration and Authentication
* Requirement 1.1: Users must be able to create an account.
* Requirement 1.2: Users must be able to log in with their credentials.
* Requirement 1.3: User authentication must be secure.

**3.3 Non-Functional Requirements**

**3.3.1 Performance Requirements**

**Response Time:** The software must load the calendar view within 2 seconds.

**Concurrent Users:** The software must handle a minimum of 1,000 users concurrently.

**Data Synchronization:** Synchronization of data with external calendars should occur in real-time or with a delay of no more than 5 minutes.

**Scalability:** The system must be able to scale horizontally to accommodate increased user load.

**3.3.2 Security Requirements**

* User data must be encrypted during transmission.
* User passwords must be securely stored using industry-standard hashing algorithms.

**3.3.3 Reliability Requirements**

* The software must have a minimum uptime of 99.9%.
* Data loss during synchronization should be minimized.

**3.3.4 Compatibility Requirements**

* The software must be compatible with popular web browsers.
* Mobile apps must be compatible with major mobile operating systems.