

## SRS Template (Version 1)

### Version Control Table

Version	Date	Description	Author
2.0	Oct 01, 2025	Initial Introduction	Aaron Kraska
2.0	Oct 01, 2025	Specific Requirements	Tristan Brown
2.0	Oct 01, 2025	Overall Description	Harsh Jejaria
2.0	Oct 01, 2025	Initial draft of the SRS document	Ranjan Khadka, Tristan Brown Harsh Jejaria, Aaron Kraska
2.0	Oct 01, 2025	External Interface Requirements, Data Model and Description	Ranjan Khadka
3.0	Oct 10, 2025	Updated Use Case Diagram	Aaron Kraska, Harsh Jejaria
3.0	Oct 24, 2025	Updated and added industry industry-standard ER diagram.	Ranjan Khadka

## 1. Introduction

### 1.1 Purpose

The purpose of this SRS document is to define the requirements for the Online Daily Planner project. This document provides the foundation for system design, development, and testing. It will ensure that the developers, project stakeholders, and users share an understanding of the system's intended functionality and its boundaries. The system aims to create a straightforward

daily planner that allows users to create, edit, and organize events, as well as set reminders for those tasks.

## **1.2 Scope**

The Online Daily Planner shall be a web-based application designed to help users manage and organize their daily events. Key features include:

- ❖ Adding events to a list of upcoming tasks
- ❖ Organizing events based on date and time
- ❖ Displaying events in order on the main page
- ❖ Providing reminders for scheduled events
- ❖ Allows modifications for existing events

The system is intended to be used by anyone in all age groups, providing them with a clutter-free planning tool.

### **In Scope:**

- ❖ User-friendly event creation and modification
- ❖ Reminder notifications
- ❖ Cross-platform access through a browser
- ❖ Simple interface with minimal distractions

### **Out of Scope:**

- ❖ Offline synchronization
- ❖ multi-user management features
- ❖ AI-based scheduling

## **1.3 Problem Definition**

People frequently miss deadlines, meetings, and appointments due to unreliable devices, distractions, or inconsistent access to a platform. The Online Daily Planner will provide a simple, distraction-free way to create and edit events such as meetings, as well as provide notifications to remind users before their scheduled event.

## **1.4 Definitions, Acronyms, and Abbreviations**

Term	Definition
API	Application Programming Interface
SRS	Software Requirements Specification
HTML	Hypertext Markup Language
CSS	Cascading Style Sheets
JS	JavaScript
Event	A scheduled task, meeting, or reminder created by the user
Reminder	A notification triggered prior to an event

## 1.5 References

Project Proposal Document: *Online Daily Planner* (Jejaria, Khadka, Kraska, Brown, 2025).

IEEE Std 830-1998. *IEEE Recommended Practice for Software Requirements Specifications*. Institute of Electrical and Electronics Engineers.

W3C (2024). *HTML & CSS Standards*. World Wide Web Consortium.

MDN Web Docs (2024). *JavaScript Guide and API Reference*. Mozilla Developer Network.

## 2. Overall Description

### 2.1 Product Perspective

Example:

The Online Daily Planner is a single-user, web-based system delivered via modern browsers. It follows a standard client–server architecture with a persistent data store for users, events, and reminders. Authentication is application-managed (username/password), and reminder delivery occurs via in-app UI cues and browser notifications (Web Push); email/SMS gateways are optional extensions and not required for MVP. The system does not integrate with external calendar providers and is intentionally lightweight to reduce complexity and distractions.

### 2.2 Product Functions

Function ID	Function Name	Description
<b>F1</b>	User Registration	Create an account, authenticate via username/password, and manage the session. (maps to FR1, NFR3/NFR5)
<b>F2</b>	Profile Management	View/update profile fields and profile picture; enforce input constraints. (FR1).
<b>F3</b>	Feedback Mechanism	Allow instructors to provide feedback on submitted assignments.
<b>F4</b>	View Live daily events	Display upcoming events sorted by soonest → latest; open event detail. (FR4, FR5)
<b>F5</b>	Edit Event	Update any event field; persist changes. (FR7)
<b>F6</b>	Delete Event	Remove selected event with confirmation. (FR3)
<b>F7</b>	Reminders	Enable/disable reminders and set lead time (e.g., 10–60 minutes). (FR8)
<b>F8</b>	Main Menu Navigation	Access create/profile/view-all from the global menu. (FR6)
<b>F9</b>	Event Detail Dropdown	Expand/collapse an event's quick detail on the main page. (FR4)

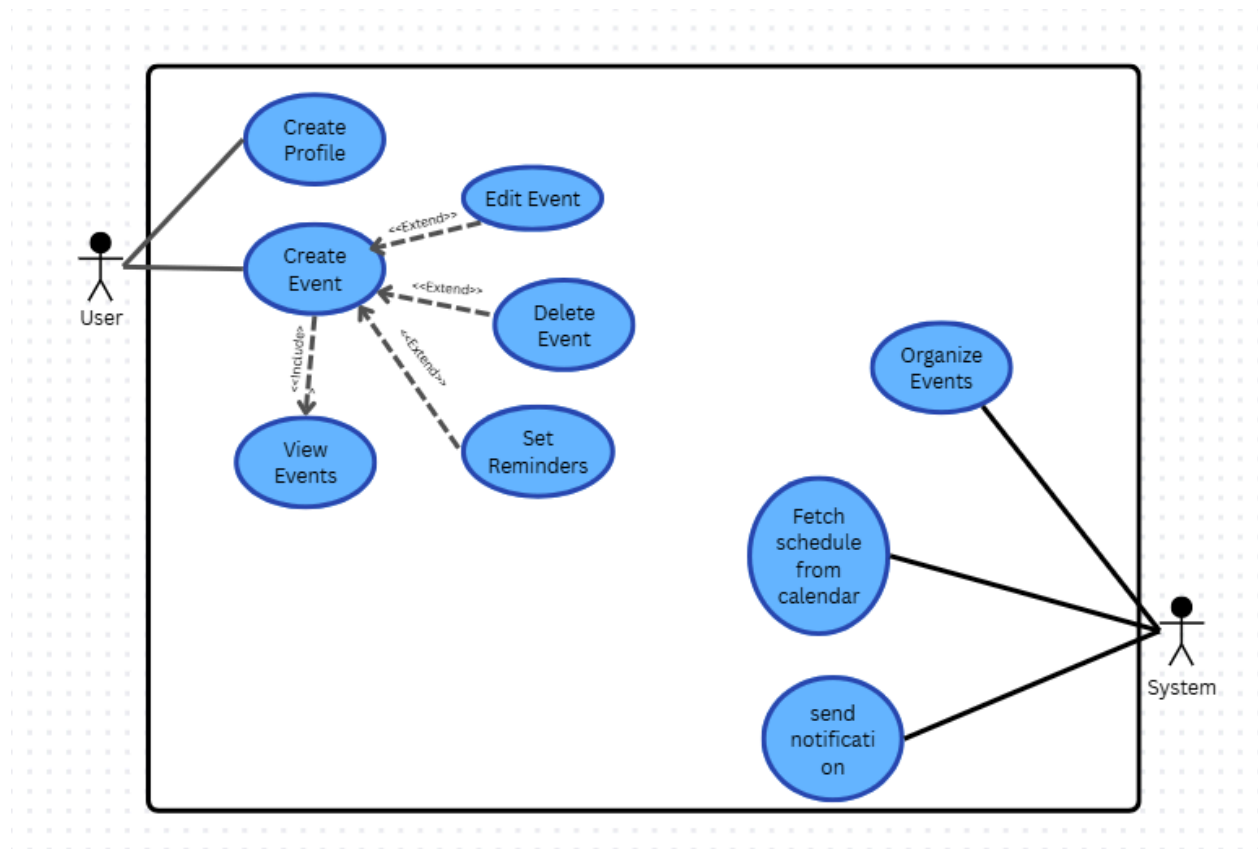
### 2.3 Use-Case Model Survey

Example:

Use Case	Description
<b>UC-1: Register Account</b>	A new user creates an account by providing the required profile fields and credentials.
<b>UC-2: Log In</b>	A user authenticates with username/password and is taken to the main planner page.
<b>UC-3: Create events</b>	A user opens the create form, enters details (title, date/time, duration, repeat, icon), and saves.

<b>UC-4:View Events</b>	From the main page or “View All,” a user sees an ordered list of events and opens details.
<b>UC-5: Edit/delete events</b>	From an event’s dropdown or list, a user updates or deletes the event.
<b>UC-6: Set Reminders</b>	While creating/editing, a user toggles reminders and selects the lead time.
<b>UC-7: Receive Reminder</b>	The system triggers a reminder before the event starts (browser notification/in-app alert).

### Draw a Use Case Diagram



## 2.4 Actor Survey

Example:

Actor	Role
User	Registers and logs in; creates, views, edits, and deletes events; configures reminders.
Notification Service (external/infra)	Delivers reminder notifications triggered by the scheduler (browser Web Push/in-app).

## 2.5 User Characteristics

The system targets general users of all ages who have basic computer/mobile literacy. Users are expected to:

- Access via a modern web browser on desktop or mobile.
- Perform short, frequent sessions (multiple times per day) to add/check events.
- Understand simple time/date entry and toggle-based settings.
- Grant browser notification permission if they want reminders.

Accessibility and simplicity are prioritized (clear labels, minimal steps, responsive layout, predictable navigation).

## 2.6 Constraints

### Technical:

- Browser support: latest Chrome/Edge/Firefox/Safari; responsive design.
- Security: HTTPS with TLS 1.2+; credentials hashed & salted; user data at rest encrypted (AES-256). (NFR3, NFR5)

- Performance: UI views (including lists with  $\geq 25$  events) shall load in  $< 3s$  on typical networks; support  $\geq 50$  concurrent users. (NFR1, §3.3)
- Availability: Target  $\geq 99\%$  availability during business hours; graceful recovery from transient failures. (NFR4)

**Functional (Out of Scope for MVP):** offline sync; multi-user/shared calendars; AI scheduling; external calendar integration.

**Operational/Regulatory:** follow standard privacy practices for storing personal data (emails, profile images); comply with institutional policies where deployed.

## 2.7 Assumptions and Dependencies

Users have a stable internet connection and a compatible browser. Users will permit notifications in the browser to receive reminders.

Server infrastructure (app + database + scheduler) is reachable over HTTPS.

Optional future integrations (email/SMS gateways) would require valid provider credentials and uptime from those third parties, but are not required for MVP functionality.

## 3. Specific Requirements

### 3.1 Functional Requirements

ID	Title	Description	Inputs	Outputs	Conditions
FR1	Create User Profile	Users shall be able to set up a profile page that links them to a list of events.	Name, Email, Username, Password, Security Questions, Profile picture	Profile page, List of appointments	Name shall be a string of any length string less than 255 characters, and email shall be in ****@***.com/org/net format, username shall be unique to each user, password shall contain upper and lowercase characters and a number and special character, security question answers

					shall accept any string, profile picture shall be a JPEG, PNG, or GIF.
<b>FR2</b>	<b>Create event</b>	Shall have a page with a form for creating an event	Select the “Create Event” button, event title, date, time, description, duration, repeat? (yes/no), icon selection	Event created notification, event short display, event long display dropdown menu, event stored notification.	Title shall be a string of any characters, date shall be in xx/xx/xxxx format, time shall be in xx/xx (AM/ PM) format, description shall be any length string of any characters, duration shall be in (xx mins, xx hours, xx days) format, “repeat” boolean switch shall be implemented to create another event every week/month, option to pick an icon from a pre-selected menu.
<b>FR3</b>	<b>Delete event</b>	Users shall be able to delete an event from the edit event menu.	Button click → Main menu → edit event → Delete event → Yes	“Event Deleted” notification, updated list of events.	The button is pushed, and a deletion message is displayed.
<b>FR4</b>	<b>View the dropdown menu on the event module with event details</b>	From the main page, bars that display events shall pop up. These bars, when clicked, shall create a dropdown menu that displays	Button to display and hide the dropdown menu.	Dropdown menu showing information.	Button arrow on the module

		event description, time, and duration of the event, and a button to edit the event.			
<b>FR5</b>	<b>View all events page</b>	The button on the main menu shall take you to a page that displays all events in a list ordered from happening soonest to happening latest. If there are more than 15 events, then there will be a side scroll bar to see hidden events.	Button click Main Menu → view all events.	An ordered list of all events, where you can click on each event, which brings you to the edit event page for that event.	Have the main menu open, click on “view all events.”
<b>FR6</b>	<b>Main Menu dropdown menu</b>	Shall have an icon at the top of the screen that displays a “main menu.”	Click the “main menu” icon.	Dropdown “main menu” that displays buttons with options: create event, profile, view all events	Can be accessed anywhere in the app button clicking the “main menu” icon.

<b>FR7</b>	<b>Edit event</b>	A link shall be included in the event modules on the main page that lets you edit each individual event.	<p>Button click dropdown menu → edit event ~Or~ Button click view all events → click desired event → click edit event. Cont...</p> <p>Inputs are the same as “create event” from “edit event” menu, except that the edit event modifies an existing event instead of creating a new one.</p>	List with updated events, event updated notification.	Button push and the same conditions as creating an event.
<b>FR8</b>	<b>Add Reminder</b>	Website shall have an option on the “create event” and “edit event” pages that lets you turn on or off a reminder and set the reminder for a certain amount of time before the associated event.	Add a reminder switch (Yes/No). How long before? Time toggler with format hr: min before.	Reminder set confirmation message, Reminder toggle set to on on the edit event menu.	Shall be on “edit event” menu, reminder toggle shall be set to on, and time before selected.

### 3.2 Nonfunctional Requirements

ID	Attribute	Description	Priority
NFR1	Performance	If a user has 25 events or more, all menus and pages shall load in under 3 seconds.	High
NFR2	Usability	The user interface shall be intuitive, with task options easy to use and identify.	Medium
NFR3	Security	The system shall require users to log in with a username and a password	High
NFR4	Reliability	The system shall be available 99% of the time during business hours and recover from failures.	High
NFR5	Security	User data shall be encrypted using AES-256, communications will be in HTTPS with TLS 1.2 or higher, and credentials will be stored hashed and salted	High
NFR6	Usability	The website shall work across major browsers	Medium
NFR7	Security	User data shall be backed up once a day and be restorable in case of system failure or data breach.	High
NFR8	Error Handling	The website shall provide clear error messages for invalid inputs and failed attempts to execute an action.	Medium

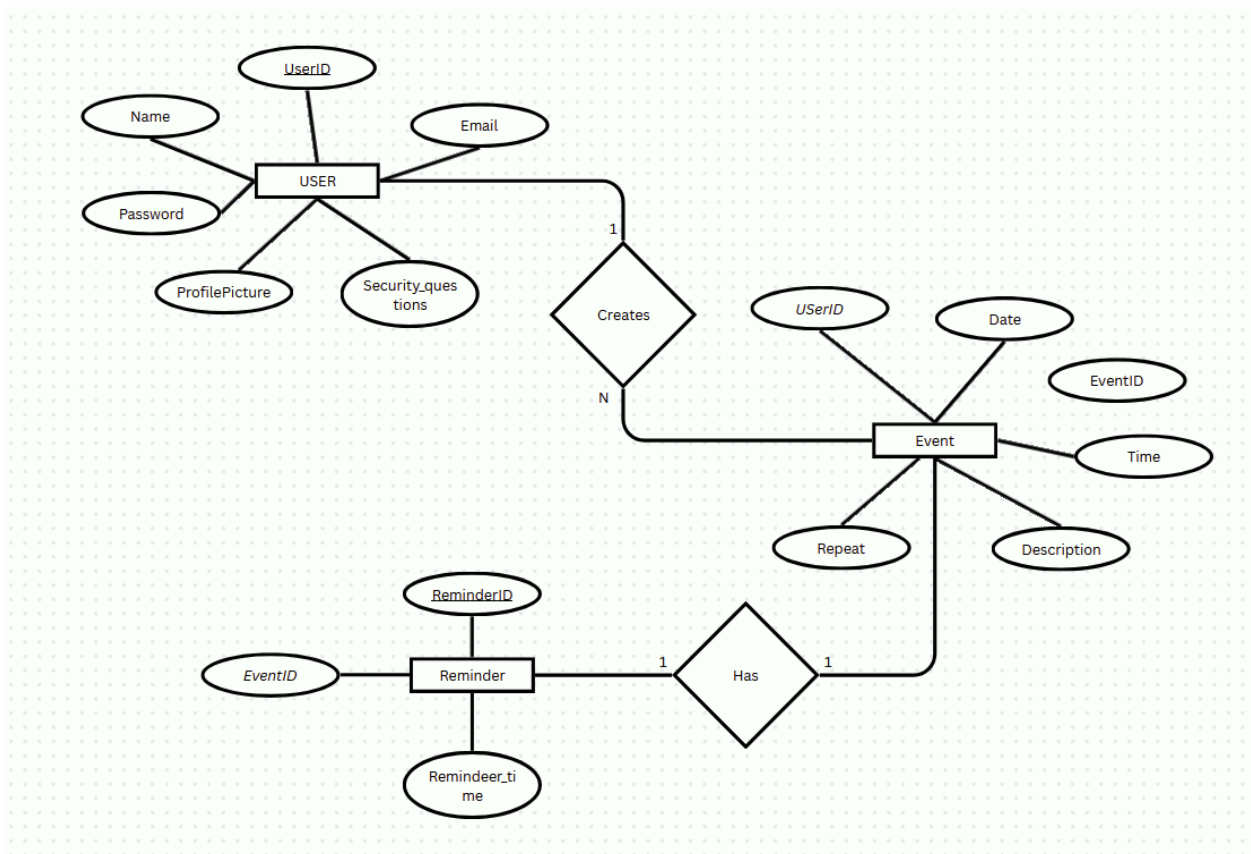
### 3.3 Performance Requirements

- The system shall load the homepage within 3 seconds under normal conditions and support up to 50 individual users.
- Animations shall initiate immediately upon user interaction, with a maximum start latency of 100 milliseconds.
- Event creation, editing, or deletion shall occur in less than one second.

- The server shall have an uptime of 99.9%, with no more than 1 hour of downtime per month.
- Website shall be able to handle up to 10,000 stored events per user without impacting execution time more than 1.5 seconds.
- The system shall maintain server CPU utilization below 70% and memory utilization below 80% under peak load.
- Website shall handle 100 event creation events per second.
- Website shall handle 50 login requests per second without slowing down more than 1 second.
- Website shall be able to deliver 100 reminder notifications per minute without slowing down more than 1 second.

#### 4. Data Model and Description

##### ER Diagram



Entity	Attributes
USER	<b>UserID (Primary Key), Name, Email, Username, Password, SecurityQuestions, ProfilePicture</b>
EVENT	<b>EventID (Primary Key), UserID (Foreign Key), Title, Date, Time, Description, Duration, Repeat, IconSelection</b>
REMINDER	<b>ReminderID (Primary Key), EventID (Foreign Key), ReminderTimeBefore (e.g., 35 minutes)</b>

Relationship	Type	Description
Creates	<b>One-to-Many (1:N)</b>	<b>A User can create many Events. Each Event must be created by one User.</b>
Has	<b>One-to-One (1:1)</b>	<b>An Event can have one Reminder, and a Reminder belongs to one Event (based on FR7, where the reminder is an option on the create/edit event page).</b>

### Data Dictionary:

Field Name	Data Type	Description	Constraints / Notes	Source (FR)
User_ID	Integer	Unique identifier for a user account.	Primary Key	FR1
Name	String	The user's full or preferred name.	Max length 255 characters	FR1
Email	String	The user's unique email address.	Format: ****@***.com/org/net, Must be unique	FR1
Username	String	The unique name used for login.	Must be unique	FR1

Password	String (Hashed)	The user's login password.	Must be salted and hashed (Security NFR)	FR1
Security_Questions	String	The answers to security questions for recovery.		FR1
Profile_Picture	Blob / String	File data or a path to the user's profile image.	JPEG, PNG, or GIF format	FR1
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Event_ID	Integer	Unique identifier for an event/task.	Primary Key	FR2
User_ID (FK)	Integer	Foreign Key linking the event back to the creator.	Foreign Key to User_ID	FR2
Title	String	A short, descriptive title for the event.		FR2
Date	Date	The scheduled date of the event.	Format: xx/xx/xxxx	FR2
Time	Time	The scheduled start time of the event.	Format: xx: xx (AM/PM)	FR2
Description	String	Long-form details about the event.		FR2
Duration	String	How long the event is expected to last.	Format: xx mins, xx hours, xx days	FR2
Repeat	Boolean	Indicates if the event is recurring.	True or False	FR2
Icon_Selection	String	Identifier for the icon chosen for the event display.	Value from a pre-selected menu	FR2
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Reminder_ID	Integer	Unique identifier for the reminder setting.	Primary Key	FR7
Event_ID (FK)	Integer	Foreign Key linking the reminder to a specific event.	Foreign Key to Event_ID	FR7
Reminder_Time_Before	Integer/Time Interval	The time offset for the reminder notification.	e.g., minutes before start time (35 minutes)	FR7

## 5. External Interface Requirements

Interface	Description	Protocol
<b>Bootstrap Integration</b>	Connection with an external library for dynamic web design.	HTTP/HT TPS

[component diagram to be added later](#)