

# SRS – Software Requirement Specification

## Document Control

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# **1. Introduction**

## **1.1 Purpose**

The purpose of this Software Requirements Specification (SRS) is to define the functional, non-functional, and system-level requirements for the "AI-Powered Mental Wellness Tracker for Employees." This document serves as a guide for the development, testing, and deployment of the application and ensures that all technical specifications are well understood before implementation begins.

This SRS is derived from the Business Requirements Document (BRD) and the Functional Requirements Document (FRD) and translates those needs into clear

system behaviors and technical constraints.

## 1.2 Intended Audience

This document is intended for the following stakeholders:

- **Business Analysts** – to validate alignment with business goals
- **Product Managers** – to track requirement completeness
- **Developers** – to design and implement the application
- **Quality Assurance (QA) Team** – to create test cases and verify expected behavior
- **System Architects** – to ensure technical feasibility and system structure
- **Project Managers** – to track project scope and progress

## 1.3 Document Overview

This SRS outlines:

- The overall vision and goals of the system
- The key features and expected system behaviors
- The technical details including inputs, outputs, validations, error handling, and constraints
- Data storage, interface requirements, and environment expectations

Each section corresponds to how the system should behave, rather than just what it should do.

## 1.4 Acronyms and Definitions

Term / Acronym	Definition
<b>SRS</b>	Software Requirements Specification
<b>FRD</b>	Functional Requirements Document
<b>BRD</b>	Business Requirements Document
<b>UI</b>	User Interface
<b>HR</b>	Human Resources team user role
<b>Admin</b>	System administrator with full access rights
<b>Employee</b>	End-user who will submit assessments and access wellness resources

Term / Acronym	Definition
<b>Assessment</b>	Daily mood check submitted by employee
<b>Resource</b>	Content provided to employees (e.g., articles, videos, activities)

## 2. Overall Description

### 2.1 Product Perspective

The AI-Powered Mental Wellness Tracker is a standalone, web-based application developed to help organizations monitor and support employee mental well-being. The system allows employees to submit daily mood assessments, HR users to view team wellness trends and schedule wellness activities, and Admin users to manage content, users, and system preferences.

The application is modular and role-based, with each user role having specific access and permissions. It is intended to be used internally within an organization and does not integrate with any third-party wellness platforms in the initial release.

### 2.2 Product Functions

The system provides the following core functions:

- **Employee Functions:**
  - Submit daily mood assessments
  - View personal wellness trends
  - Access wellness resources (articles, videos, etc.)
  - Edit personal profile settings
- **HR Functions:**
  - View wellness trends of their assigned teams
  - Schedule wellness activities for employees
  - Receive alerts for critical employee mood patterns
  - Send reminders or notifications to teams
- **Admin Functions:**
  - Manage all users (Employee, HR, Admin)

- Manage wellness content (add/edit/delete)
- Adjust system settings (notifications, roles, backup)
- View global system usage and health data

## 2.3 User Classes and Characteristics

User Role	Description	Access Level
<b>Employee</b>	Regular employee using the system to track mood and access content	Basic (self-access only)
<b>HR</b>	HR representative overseeing employee teams	Moderate (team-level access)
<b>Admin</b>	System administrator with complete platform control	Full access

All users are expected to have basic digital literacy and access the platform via modern browsers.

## 2.4 Operating Environment

- **Platform Type:** Web-based application
- **Supported Browsers:** Chrome, Firefox, Edge, Safari (latest versions)
- **Responsive Design:** Optimized for desktop, tablet, and mobile
- **Hosting:** Cloud-hosted (deployment environment to be finalized)
- **Database:** Relational database (e.g., PostgreSQL or MySQL)
- **Backend API:** RESTful architecture

## 2.5 Design and Implementation Constraints

- Only one mood assessment can be submitted per user per day
- Multilingual support is not available in the first release (English only)
- System does not support external integrations in v1.0
- Feature changes outside the approved scope must go through a change request process
- No native mobile app — web-only for version 1.0

## 2.6 Assumptions and Dependencies

- Users will have reliable internet access and use the application on supported browsers
- Employees, HR, and Admins will receive onboarding or training as required
- Content and assessment questions will be finalized during the setup phase
- Organization's IT team will manage platform access, login credentials, and support

## 3. Specific Requirements

### 3.1 Functional Requirements

These describe the specific behaviors and functions the system must perform, organized by user roles.

#### Employee Functional Requirements

ID	Requirement
FR-E01	Employees must be able to log in using valid email and password credentials.
FR-E02	Employees can submit one mood assessment per day using a 1–5 emoji scale.
FR-E03	Employees can add optional notes along with their assessment submission.
FR-E04	After submission, employees can view their assessment history in a list or chart view.
FR-E05	Employees can access wellness content such as videos, articles, and exercises.
FR-E06	Employees can update their profile information, including department and password.

#### HR Functional Requirements

ID	Requirement
FR-H01	HR users can log in and access their dashboard.
FR-H02	HR users can view wellness reports of employees in their department.
FR-H03	HR users can filter reports by mood level (e.g., Stable, Low, Critical).

ID	Requirement
FR-H04	HR can schedule wellness activities (title, type, date, time, audience).
FR-H05	HR receives alerts for critical mood submissions (e.g., mood score = 1).
FR-H06	HR can send notifications to specific users or departments.

## Admin Functional Requirements

ID	Requirement
FR-A01	Admins can manage all user accounts (create, edit, deactivate).
FR-A02	Admins can upload and manage wellness content (e.g., add article, remove video).
FR-A03	Admins can update system settings such as default roles, notification rules, and backup preferences.
FR-A04	Admins can view full system activity logs (logins, submissions, changes).
FR-A05	Admins can restore or download data backups through the system interface.

## 3.2 Non-Functional Requirements

Category	Requirement
Performance	System should respond within 2 seconds for most actions.
Availability	System should maintain 99.5% uptime during business hours.
Security	Passwords must be encrypted; role-based access must be enforced.
Usability	Users should be able to complete an assessment within 2 minutes.
Scalability	System must support 1000+ users without performance drop.
Compatibility	Application must work on Chrome, Firefox, Safari, and Edge.

Category	Requirement
Backup & Recovery	Daily backups must be enabled; restore time should not exceed 2 hours.

### 3.3 User Interface Requirements

- All pages must be mobile-responsive and follow clean, accessible design.
- Mood assessment page must use large, clickable emoji options (1–5 scale).
- Admin and HR dashboards must use cards, filters, and tables for easy data review.
- Activity scheduling forms must include dropdowns for activity type and audience.

*Wireframes for all screens have been created using Balsamiq and are referenced in the Appendix.*

### 3.4 Business Rules

(Summarized from FRD Section 7 — no need to rewrite fully)

- Only one mood submission allowed per day per employee.
- HR can view reports only for their assigned teams.
- Admin has full control over users, content, and settings.
- Passwords must meet minimum security standards (length, symbol, number).
- Logged-out after 15 minutes of inactivity.

### 3.5 System Features (Grouped Overview)

Feature Group	Feature Name
Employee Tools	Submit Assessment, View Results, Resources, Profile Settings
HR Tools	Team Wellness Reports, Schedule Activities, Notifications
Admin Tools	User Management, Content Management, Settings, Logs, Backup

### 3.6 Error Handling and Validation Rules



Scenario	System Response
Employee tries to submit more than 1 assessment/day	Show message: "You've already submitted today's assessment."
HR tries to view unauthorized team	Show message: "Access denied – not part of your team."
Invalid login credentials	Show message: "Incorrect email or password."
Missing required fields on any form	Show inline message: "This field is required."
API/server failure	Show message: "Something went wrong. Please try again later."

## 4. External Interface Requirements

### 4.1 User Interfaces

The system is a web-based application designed with role-based dashboards for Employees, HR users, and Admins. Each role sees only the features and data relevant to them.

Key interface expectations:

- **Login Page** – Simple form with Email ID and Password fields
- **Employee Dashboard** – Shows greeting, mood trend graph, buttons for assessment, reports, resources
- **HR Dashboard** – Displays team mood summaries, buttons to view reports, schedule activities, view notifications
- **Admin Dashboard** – High-level view with user management, content controls, and system settings
- **Responsive Design** – The system should be accessible on desktops, tablets, and mobile phones
- **Accessibility** – Use of clear fonts, large buttons, and keyboard navigation where possible

### 4.2 Hardware Interfaces

This system is hosted on the cloud and accessed via web browsers. No direct interaction with physical hardware (like biometric devices or IoT) is expected in the initial version.

Requirements:

- **Client-side:**
  - Any modern device (laptop, desktop, tablet, mobile)
  - Keyboard and mouse (for desktop use)
- **Server-side:**
  - Cloud-hosted servers (platform to be finalized)
  - Scalable infrastructure to handle user load

## 4.3 Software Interfaces

This system may interface with the following:

- **Web Browser:**
  - Must support modern browsers (Chrome, Firefox, Edge, Safari)
- **Email Server:**
  - For sending notifications, password reset links, and alerts (SMTP)
- **Database:**
  - A secure relational database (e.g., PostgreSQL or MySQL) will be used to store all data
- **Authentication System:**
  - Email-password login (OAuth, LDAP, or SSO may be explored in future versions)
- **API Layer:**
  - Backend will expose RESTful APIs for core operations such as:
    - Submit Assessment
    - Fetch Reports
    - Manage Users & Content

## 4.4 Communication Interfaces

- **Internal Messaging:**
  - Users will receive system-generated messages such as alerts or reminders (displayed in-app and optionally via email)
- **Email Notifications:**
  - The system will trigger automated emails for:
    - Password reset
    - Activity reminders
    - Critical mood alerts (to HR)
- **No third-party integrations planned in v1.0**, but REST APIs are being designed to support future expansion.

## 5. Data Requirements

### 5.1 Data Models / Tables

Below are the core data entities and the key fields associated with them:

#### 1. User Table

Stores login and profile details of Employees, HR, and Admins.

Field Name	Data Type	Description
user_id	UUID	Unique identifier
full_name	String	Full name of the user
email	String	Unique login email
password_hash	String	Encrypted password
role	Enum	Employee / HR / Admin
department	String	Department name (for HR mapping)
is_active	Boolean	Whether the user is active
created_at	Date Time7	Account creation date

#### 2. Mood Assessment Table

Stores the employee's daily mood check data.

Field Name	Data Type	Description
assessment_id	UUID	Unique ID for each assessment
user_id	UUID	Links to the <b>Users</b> table
mood_score	Integer	Score from 1 (lowest) to 5 (best)
notes	Text	Optional comments
submitted_at	DateTime	Timestamp of submission

### 3. Resources Table

Stores wellness articles, videos, or audio content.

Field Name	Data Type	Description
resource_id	UUID	Unique ID
title	String	Title of the content
description	Text	Short summary
type	Enum	Article / Video / Audio
url	String	Link to content
created_by	UUID	Admin who uploaded it
created_at	DateTime	Upload timestamp

### 4. Activities Table

Stores information about scheduled wellness events.

Field Name	Data Type	Description
activity_id	UUID	Unique ID
title	String	Activity name
type	Enum	Meditation / Webinar / Game / Break
date	Date	Scheduled date
time	Time	Scheduled time
audience	Enum	All Employees / Specific Team
description	Text	Optional notes
created_by	UUID	HR user who scheduled it

### 5. Notifications Table

Stores system-generated alerts for employees and HR.

Field Name	Data Type	Description
notification_id	UUID	Unique ID
recipient_id	UUID	User who receives the notification
message	Text	Notification content
type	Enum	Alert / Reminder / Info
is_read	Boolean	Marked as read or unread
sent_at	DateTime	When it was sent

## 5.2 Data Validation Rules

Field / Action	Validation Rule
Email	Must be a valid, unique email format
Password	Minimum 8 characters, 1 number, 1 special character
Mood Submission	Only one submission allowed per day per employee
Mood Score	Must be an integer between 1 and 5
Notes	Optional; Max length = 300 characters
Resource URL	Must be a valid HTTPS link
Assessment Notes	Cannot include abusive or banned terms (TBD)

## 5.3 Data Storage and Backup

- **Database Type:** Relational (PostgreSQL or MySQL)
- **Location:** Cloud-hosted, secure environment
- **Backups:** Automatic daily backups enabled
- **Data Retention:** Records kept for at least 3 years unless removed by admin
- **Recovery:** Backup restoration must complete within 2 hours in case of data loss

## Section 6: Appendix

This section includes formal details like document versioning, glossary, and sign-off table. It's short, but very important — especially in real IT projects for traceability and approvals.

## 6.1 Glossary of Terms

Term / Acronym	Meaning
SRS	Software Requirements Specification
BRD	Business Requirements Document
FRD	Functional Requirements Document
UI	User Interface
UX	User Experience
HR	Human Resources
API	Application Programming Interface
Assessment	The daily mood questionnaire completed by employees
Activity	Any wellness session like meditation, games, webinars scheduled by HR

## 6.2 Approval & Sign-Off Table

Role	Name	Signature	Date
Business Analyst	Jayasuriya J		
Project Manager	Priya M		
Client Representative	Senthil S		