Software Requirements Specification (SRS)
Software personal management system

1. Introduction

The document follows an IEEE-style Software Requirements Specification (SRS) structure. It defines the purpose, scope, terminology, references, and system overview for the **Software Personal Management System (SPMS)**.

1.1 Purpose

This SRS describes the requirements of SPMS for use by stakeholders, developers, testers, and project managers. It establishes a clear basis for system validation, implementation, and future enhancements.

1.2 Document Conventions

This document uses IEEE-style numbering, requirement identifiers (FR-#, NFR-#), and standard software engineering terminology.

1.3 Intended Audience and Reading Suggestions

This document is intended for:

- Project supervisors and stakeholders
- Software developers and designers
- Test engineers
- Maintenance teams

Readers may focus on sections relevant to their role.

1.4 Project Scope

SPMS is a web-based personal management application that provides:

- Secure user authentication
- Task and schedule management
- Goal tracking
- Reminders and notifications
- Personal data organization
- Basic analytics for productivity

The system is designed to improve personal organization and time management.

1.5 References

1-software engineering by sommerville 7th edition

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2. Overall Description

This section provides a high-level description of the product and its operating environment.

2.1 Product Perspective

SPMS is a standalone web-based application that runs on a client-server architecture and stores data in a secure database.

2.2 Product Functions

Major system functions include:

• User registration and login
• Task creation, editing, and deletion
• Reminder scheduling
• Goal tracking
• Profile management
• Data storage and retrieval
• Notifications

2.3 User Classes and Characteristics

• **Users** — manage personal tasks and goals
• **Admin (optional)** — manages system settings

2.4 Operating Environment

• Web browser interface
• Mobile-responsive design
• Cloud or local server backend
• Relational database

2.5 Design and Implementation Constraints

• Limited development time
• Must follow basic security standards
• Must support common browsers

2.6 User Documentation

2.6.1 User Manual

A detailed user manual will be provided that explains:

- How to create an account and log in
- How to reset passwords
- How to add, edit, and delete tasks
- How to set reminders
- How to create and track goals
- How to update profile information
- How to log out securely

The manual will include step-by-step instructions with screenshots.

2.6.2 Quick Start Guide

A short guide for new users that explains:

- Basic system features
- First-time setup
- How to create the first task
- How to use reminders

This helps users start using the system quickly.

2.6.3 Online Help System

An in-app help section will provide:

- FAQs (Frequently Asked Questions)
- Feature explanations

2.7 Assumptions and Dependencies

• Users have internet access
• Users understand basic app usage
• Database and server services are available

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3. System Features (Functional Requirements)

FR-1 User Authentication

• The system shall allow users to register and log in securely.
• The system shall validate login credentials.

FR-2 Profile Management

• Users shall update personal information.

FR-3 Task Management

• Users shall create, edit, and delete tasks.
• Tasks shall have priority and deadlines.

FR-4 Reminder System

• The system shall send reminders for upcoming tasks.

FR-5 Goal Tracking

• Users shall create and monitor personal goals.

FR-6 Data Management

• The system shall store and retrieve user data securely.

FR-7 Notifications

• The system shall notify users of important updates.

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4. External Interface Requirements

4.1 User Interfaces

• Web-based graphical interface
• Mobile-responsive design

4.2 Hardware Interfaces

• Desktop, laptop, tablet, and smartphone

4.3 Software Interfaces

• Database system (MySQL / SQLite / MongoDB)
• Backend server

4.4 Communication Interfaces

• Secure HTTPS communication

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5. Non-Functional Requirements

NFR-1 Performance

• Pages shall load within 3 seconds.

NFR-2 Security

• Passwords shall be encrypted.
• User data shall be protected.

NFR-3 Reliability

• The system shall operate without frequent failures.

NFR-4 Usability

• The interface shall be simple and easy to use.

NFR-5 Scalability

• The system shall support multiple users.

NFR-6 Maintainability

• Code shall follow standard coding practices.

NFR-7 Portability

• The system shall run on major browsers and devices.

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6. System Architecture Overview

The system follows a layered architecture:

• Presentation Layer (UI)
• Business Logic Layer
• Data Layer
• Notification Layer

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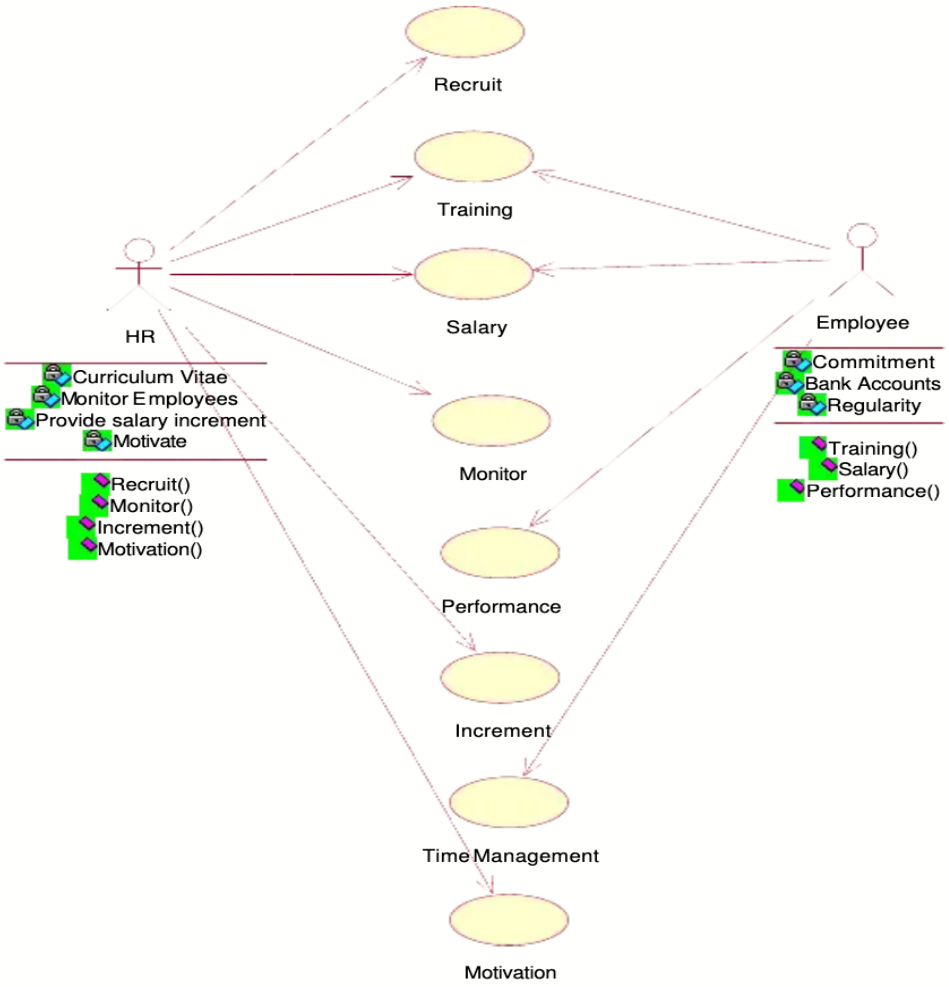
7. System and Data Models

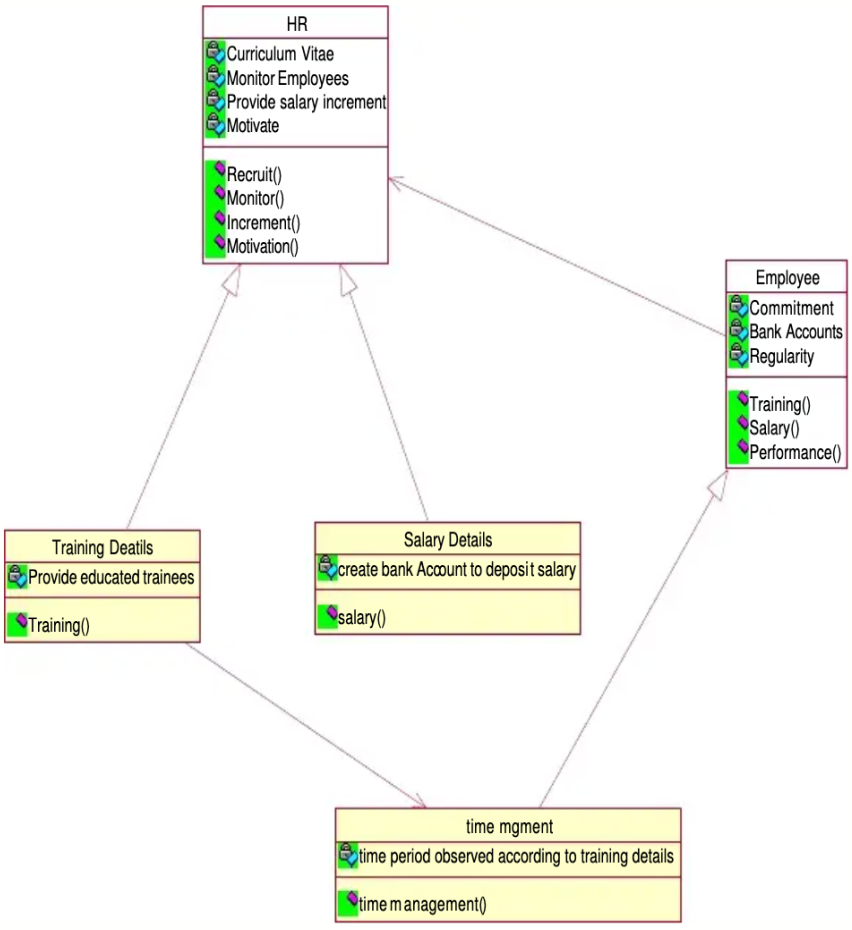
Use case diagram:

The HR of an organization involves recruitment, training, monitoring and motivation of an employee. The HR also involves giving salary as observed in the payroll sheet. The employee undergoes training, receives the salary, gives the expected performance and manages time in order to complete a given task within the required period.



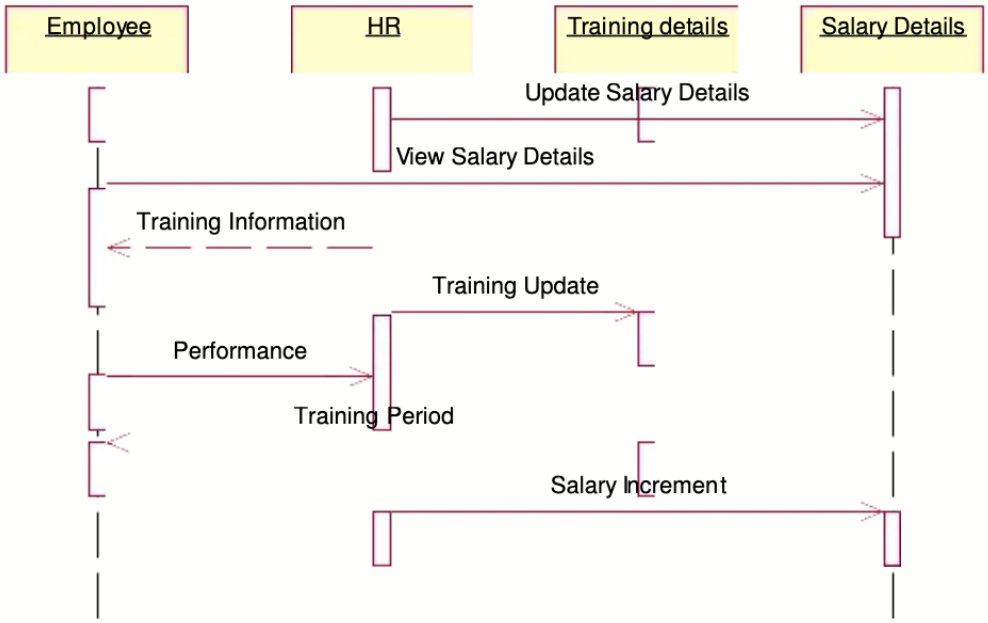
Class diagram:

The employee of a class consists of attributes such as training, salary, performance and time management of his regular activities.



Sequence diagram:

The sequence diagram is constructed for employee and HR regarding training details and salary details of the employee. The HR will verify the details of the employee and update the salary for each employee. The employee can view his salary data. If the employee needs to undergo any training, he will be receiving the training information and training period. After completion of the training period, HR will issue a salary increment.



8. Validation and Acceptance Criteria

• All functional requirements must be tested
• User acceptance testing (UAT) must pass
• Security and performance tests must be successful

9. Appendices

Appendix-A: Glossary

Term	Description
SPMS	Software Personal Management System
SRS	Software Requirements Specification
UI	User Interface
UAT	User Acceptance Testing
API	Application Programming Interface
Authentication	Process of verifying user identity
Authorization	Granting access rights to users
CRUD	Create, Read, Update, Delete
UML	Unified Modeling Language
Database	Structured data storage system
Notification	Alert sent to the user
Cloud	Online data storage and services
Encryption	Securing data using cryptography

Appendix-B: Sample Data

This appendix provides example data to demonstrate how information is stored and managed in the Software Personal Management System.

Sample User Profile

Field	Example Value
User ID	U001
Name	Rahul Sharma
Email	rahul@example.com
Role	User
Status	Active

Sample task data

Task ID	Task Name	Priority	Due Date	Status
T001	Complete Assignment	High	25-01-2026	Pending
T002	Pay Electricity Bill	Medium	22-01-2026	Completed

Sample Goal Data

Goal ID	Goal Title	Duration	Progress
G001	Improve Time Management	30 Days	60%

Sample Notification

Reminder: "Complete Assignment" is due tomorrow.

Appendix-C: Compliance checklist

This checklist ensures that the system meets basic software engineering and project requirements.

The following documentation requirements have been fulfilled:

- SRS prepared using IEEE-style format
- Functional requirements defined
- Non-functional requirements defined
- Glossary included
- Future enhancements listed
- Simple and user-friendly interface
- Mobile-responsive design
- Clear error messages provided
