SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

RevWorkForce – Human Resource Management System

Prepared By: Dudekula Babji
Project Type: Console-Based Java Application
Domain: Human Resource Management System (HRMS)
Target Users: Employees, Managers, Admin

---

1. INTRODUCTION

1.1 Overview

RevWorkForce is a console-based Human Resource Management System (HRMS) developed to automate and streamline core human resource activities within an organization. The application focuses on managing employee information, leave management, and performance evaluation in a structured and secure manner. It eliminates manual HR processes and provides a centralized platform where employees, managers, and administrators can interact based on their assigned roles.

The system supports three primary user roles: Employee, Manager, and Admin. Each role has clearly defined responsibilities and access permissions. Employees can manage personal details, apply for leaves, and submit performance reviews. Managers can approve or reject leave requests, review employee performance, and monitor team progress. Administrators control system configurations, employee onboarding, leave policies, and organizational structure.

Although RevWorkForce is currently implemented as a console-based application, it follows a modular and layered architecture. This design allows the system to be easily extended into a web-based or microservices-based application in future development phases.

1.2 Purpose of the Document

The purpose of this Software Requirements Specification (SRS) document is to provide a complete and detailed description of the RevWorkForce system. This document defines the system's functional and non-functional requirements, user interactions, constraints, and overall architecture.

This SRS acts as a reference for developers, testers, academic evaluators, and stakeholders. It ensures a common understanding of system behavior and serves as a foundation for future enhancements, maintenance, and scalability.

1.3 Scope of the System

RevWorkForce covers essential HR operations such as employee management, leave tracking, performance reviews, goal setting, notifications, and reporting. The system ensures transparency between employees and management while maintaining data security and integrity.

The scope includes:

- Employee onboarding and profile management
- Leave application and approval workflows

- Performance review and goal tracking
- Role-based access control
- In-app notification system
- Reporting and administrative control

The system is intended for small to medium-sized organizations and academic demonstration purposes.

---

2. OVERALL DESCRIPTION

2.1 Product Perspective

RevWorkForce is a standalone console-based Java application that interacts with a relational database. It follows a layered architecture that separates presentation logic, business logic, and data access logic. This separation improves maintainability, readability, and testability of the codebase.

The system can later be integrated with a web interface, REST APIs, or microservices without major architectural changes.

2.2 User Classes and Characteristics

Employee

Employees are standard users of the system. They can log in using their employee ID and password. Employees can update basic profile information, apply for leaves, track leave status, submit self-performance reviews, define goals, and receive notifications.

Manager

Managers are employees with additional responsibilities. They manage a team of direct reportees. Managers can view team leave requests, approve or reject leaves, review performance documents, provide feedback, and monitor goal progress.

Admin

Administrators have complete control over the system. Admins manage employee records, assign reporting managers, configure leave policies, set performance cycles, manage departments and designations, and generate reports.

2.3 Operating Environment

- Programming Language: Java
- Application Type: Console-based
- Database: MySQL / PostgreSQL
- Operating System: Windows or Linux

- Java Version: JDK 8 or above

2.4 Assumptions and Dependencies

- All users are registered by the admin before accessing the system
- Users have basic knowledge of console applications
- Database connectivity is properly configured
- Internet is not mandatory for core functionality

---

3. FUNCTIONAL REQUIREMENTS

3.1 Employee Functional Requirements

Employees must be able to authenticate securely using their employee ID and password. After successful login, employees can view their personal profile, reporting manager details, and employee directory.

Employees can edit basic profile information such as phone number, address, and emergency contact details. Sensitive details such as employee ID and designation cannot be modified by employees.

The leave management module allows employees to view their available leave balance including Casual Leave, Sick Leave, and Paid Leave. Employees can apply for leave by selecting leave type, date range, and providing a reason. Employees can track the status of their leave requests and cancel pending requests.

Employees can view the company holiday calendar while applying for leave. Notifications are generated when a manager approves or rejects a leave request.

The performance management module enables employees to create annual self-assessment documents. Employees can list key achievements, areas of improvement, and provide a self-rating. Employees can also set yearly goals with deadlines, priorities, and success metrics. Goal progress can be updated periodically.

Employees receive notifications when managers provide feedback on performance reviews.

Additional features include viewing upcoming birthdays, work anniversaries, company announcements, and accessing the employee directory.

3.2 Manager Functional Requirements

Managers can view a list of employees who report directly to them. Managers can access and review leave requests submitted by team members and approve or reject requests with comments.

Managers can view team leave calendars and individual leave balances to avoid scheduling conflicts. Notifications are sent when team members apply for leave.

In the performance management module, managers can review performance documents submitted by employees. Managers can provide detailed feedback, rate employee performance, and guide employees on goal improvement.

Managers can track goal completion status for team members and generate team performance summary reports. Managers also have access to team attendance summaries and team hierarchy information.

3.3 Admin Functional Requirements

Admins can add new employees with complete personal and employment details such as name, email, department, designation, joining date, and salary information. Admins can update, deactivate, or reactivate employee accounts.

Admins can assign or change reporting managers and search employees using various criteria such as name, ID, department, or designation.

Admins configure leave types and assign leave quotas to employees. They can manually adjust leave balances and revoke approved leaves with manager approval.

Admins manage company holiday calendars, departments, designations, performance review cycles, and system-wide policies. Admins can generate leave reports and view system audit logs.

---

4. NON-FUNCTIONAL REQUIREMENTS

4.1 Security Requirements

The system must enforce role-based access control to ensure users can only access authorized features. Passwords must be securely stored and verified. Sessions should automatically expire after a period of inactivity.

4.2 Performance Requirements

The system should respond quickly to user inputs in a console environment. Database operations should be optimized to avoid delays during login, leave processing, and report generation.

4.3 Reliability and Availability

The system should maintain data consistency and handle exceptions gracefully. Proper error messages should be displayed to users without exposing system details.

4.4 Maintainability and Scalability

The application should follow modular coding standards. New features such as web interfaces, APIs, or microservices should be easily integrated in future phases.

---

5. SYSTEM ARCHITECTURE AND DESIGN

RevWorkForce follows a layered architecture consisting of:

- **Presentation Layer:** Console-based user interface
- **Service Layer:** Business logic and validations
- **DAO Layer:** Database interaction
- **Database Layer:** Relational database storage

This architecture ensures separation of concerns and supports future scalability.

5.1 Entity Relationship Description

The system includes entities such as Employee, Manager, Leave, PerformanceReview, Goal, Department, Notification, and Holiday. Relationships define reporting structures, leave approvals, and performance evaluations while ensuring data integrity.

---

6. CONCLUSION

RevWorkForce is a comprehensive Human Resource Management System designed to solve real-world HR challenges through structured workflows and role-based access control. The system improves efficiency, transparency, and data management within an organization.

This Software Requirements Specification document provides a complete and detailed description of system requirements and serves as a strong foundation for development, testing, and future enhancements. RevWorkForce is suitable for academic projects as well as real-world HR automation use cases.