Universidad Tecnológica de Tijuana

Gestión de Recursos Humanos

Materia: Diseño de apps

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Software Requirements Specification (SRS)

1. Introduction

1.1 Purpose

This document aims to describe in detail the requirements for the Human Resource Management System. The purpose of this project is to facilitate the management of information related to an organization's employees, almost completely excluding payroll functions.

1.2 Scope

The Human Resource Management System (HRM) is designed to enable the registration, consultation, updating, and deletion of employee information, including:

- **Personal data**: Name, date of birth, address, contact information, etc.
- **Work-related information**: Job position, department, hiring date, supervisors.
- **Training history and performance evaluations.**

This system is intended for small and medium-sized organizations looking for a simple and efficient solution for managing human resources information. It includes partial integration with financial systems and the management of payments or benefits.

1.3 Definitions, Acronyms, and Abbreviations

- **HRM**: Human Resource Management.
- **Employee**: A person registered in the system who works for the organization.
- **Administrator**: A user with permissions to manage all system information.
- **CRUD**: Basic database operations: Create, Read, Update, and Delete.

1.4 References

- IEEE Std 830-1998: Recommended Practice for Software Requirements Specifications.
- Academic documents related to system analysis and design.

1.5 Overview

This document contains a general description of the system, including its main functions, expected users, and limitations. Additionally, it specifies functional and non-functional requirements, system models, and any other relevant information for its development.

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2. General Description

2.1 Project Perspective

The Human Resource Management System is a standalone application designed to facilitate the administration of employee data within an organization. This system will replace manual and decentralized processes, improving accuracy, accessibility, and data security.

The system will consist of a central module that includes the following key functionalities:

- Employee management (registration, modification, and deletion).
- Organization of the production area and company roles.
- Employee attendance tracking.
- Performance evaluation and report generation.
- Salary registration (base salary according to role).
- Management of leave requests, vacations, and sick leaves.
- Accident report generation.
- Shift management.

2.2 Project Functions

The main functions of the system are:

- **Employee Management**: Allows the administrator to register, edit, and delete employee information (name, email, contact number, hiring date, etc.).
- **Department Organization**: Create and manage departments, assigning specific roles to each one.
- **Attendance Tracking**: Record employees' daily attendance and generate punctuality reports.
- **Report Generation**: Generate basic reports on system data, such as employee lists, accumulated attendance, or completed evaluations.

2.3 User Characteristics

The system is designed for two main types of users:

- **System Administrator**: Responsible for managing the system. They will have access to all functionalities, including employee, role, and report management.
- **Employee**: Will have access to basic personal information and will be able to view their attendance history, evaluations, sick leaves, salary, and vacation periods.

2.4 Constraints

- Does not include payroll calculations, tax processing, or other financial processes.
- Does not include department creation and management.

2.5 Assumptions and Dependencies

- It is assumed that administrators and employees have basic computer skills.
- The system will rely on a relational database, such as MySQL, to store information.

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Employee Management

● Register new employees with personal details, contact information, job position, department, hiring date, etc.
● The system must allow the administrator to edit registered employee information.
● Employee record deletion (removal from the system).
● Employee registration.
● The system must display a list of employees with options to search and filter by name, department, or role.

3.1.2 Role and Permission Management

● Assign specific roles to employees (e.g., operator, technician, supervisor).
● The system must allow the administrator to create, edit, and delete departments in the production area.
● Define permissions based on assigned roles.

3.1.3 Attendance Tracking

● The system must allow the administrator to record daily attendance using QR codes.
● Generate attendance reports by period.
● The system must display an attendance history for each employee.

3.1.4 Schedule Management

● Assign work schedules to employees.
● Adjust schedules in case of temporary or permanent changes.

3.1.5 Report Generation

The system must generate reports in PDF format, including:

- Employee lists.
- Attendance summaries by employee or department.
- Performance evaluations.

3.1.6 Training and Development

- Register training programs for employees.
- Track employee progress in training programs.

3.1.7 Salaries

- Automatic calculation of payments based on hours worked and defined salaries.
- Control of deductions and bonuses.

3.1.8 Document Management

- Storage of important documents (contracts, certificates, IDs).
- Control of document expiration, such as certifications or permits.

3.2 Non-Functional Requirements

3.2.1 Usability

- The system must have an intuitive and user-friendly interface for users with basic computer skills.

3.2.2 Performance

- The system must handle at least 50 employee records without performance degradation.

3.2.3 Security

- The system must require authentication for access, with different permission levels based on user type.
- Sensitive data, such as passwords, must be encrypted in the database.

3.2.4 Portability

- The system must be accessible from modern browsers (Chrome, Firefox, Edge).

3.2.5 Maintainability

- **NFR 5.1**: The system must be documented to facilitate future updates or corrections.