**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 provide a detailed description of the requirements for the Human Resource Management system. The purpose of this project is to facilitate the administration of employee-related information within an organization, almost entirely excluding payroll functionality.

**1.2 Scope**The Human Resource Management (HRM) system 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 Information**: Job position, department, hire date, supervisors.
* **Training and Performance History**.

This system targets small and medium-sized organizations looking for a simple and efficient solution to manage their human resource information. It partially integrates with financial systems for payment and benefit management.

**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 the system’s 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 additional relevant information for its development.

**2. General Description**

**2.1 Project Perspective**The human resource management system is an independent application designed to simplify the management of employee data within an organization. This system will replace manual and decentralized processes, improving information accuracy, accessibility, and security.

The system will include a central module with the following main functionalities:

* Employee management (registration, modification, and deletion).
* Organization of departments and roles within the company.
* Employee attendance tracking.
* Performance evaluations and report generation.
* Payroll calculation.
* Management of leave, vacations, and absences.
* Accident report generation.
* Shift management.

**2.2 Project Functions**The system’s main functionalities include:

* **Employee Management**: Allows the administrator to register, edit, and delete basic employee information (name, email, contact number, hire date, etc.).
* **Department Organization**: Create and manage departments, assigning specific roles to each.
* **Attendance Tracking**: Record employees’ daily attendance and generate punctuality reports.
* **Report Generation**: Generate basic system data reports, 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**: They will have access to their basic personal information and can view their attendance history, evaluations, absences, salary, and vacation periods.

**2.4 Constraints**The system does not include functionalities for payroll calculations, taxes, or other financial processes.

**2.5 Assumptions and Dependencies**

* It is assumed that the administrator and employees have basic computer knowledge.
* The system will rely on a relational database for information storage, such as MySQL or PostgreSQL.

**3. Specific Requirements**

**3.1 Functional Requirements**

**3.1.1 Employee Management**

* Register new employees with personal data, contact information, job position, department, hire date, etc.
* The system must allow the administrator to edit registered employee information.
* Employee record deletion (removal from the system).
* Add new employees.
* 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.
* Define permissions based on assigned roles.

**3.1.3 Attendance Tracking**

* The system must allow the administrator to register daily attendance via QR codes.
* Generate attendance reports for specific periods.
* The system must display attendance history by employee.

**3.1.4 Schedule Management**

* Assign work schedules to employees.
* Adjust schedules in cases of temporary or permanent changes.

**3.1.5 Report Generation**

* The system must generate reports in PDF format for stored information, such as:
  + Employee lists.
  + Attendance summaries by employee or department.
  + Performance evaluations.

**3.1.6 Training and Development**

* Register training programs for employees.
* Track employees’ progress in training programs.

**3.1.7 Salaries**

* Automatically calculate payments based on hours worked and defined salaries.
* Manage deductions and bonuses.

**3.1.8 Document Management**

* Store important documents (contracts, certificates, IDs).
* Monitor document expiration dates, 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 individuals with basic computer knowledge.

**3.2.2 Performance**

* The system must handle at least 50 employee records without affecting performance.

**3.2.3 Security**

* The system must require authentication for access, with different permission levels based on the 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**

* The system must be documented to facilitate future updates or fixes.