

# SRS

## HW16

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**Indicaciones:**



## 1. Introduction.

This document is a Software Requirements Specification (SRS), for the system of registration of workers of a company that will be handled by workers in the human resources area in addition to the calculation of salary per worker. This specification has been structured based on the guidelines given by the standard IEEE Recommended Practice for ANSI/IEEE Software Requirements Specifications 830.

### 1.1. Purpose.

The general purpose of this document is to precisely define the functional and non-functional requirements for the development of the new system, in addition to demonstrating that they are understandable for potential clients, users or system administrators.

### 1.2. Ambit.

The system has an interface where the person in charge can enter the data of each worker into the cloud where they are:

- Name
- Id
- Gender
- Age

In addition to being able to add, delete or modify data in the cloud, the system has a window where you can calculate the salary of each of the workers

### 1.3. Definitions, Acronyms and Abbreviations

Software	Algorithm of the program that runs inside the computer
ANSI	American National Standards Institute
IEEE	Institute of Electrical and Electronic Engineers
SRC	Software Requirements Specification

### 1.4. References

IEEE 84	IEEE Std 830-1984, Guide for Software Requirements Specifications
IEEE 90	IEEE Std 610.12-1990, Standard Glossary of Software Engineering Terminology (ANSI)

### **1.5. General view**

This document consists of three sections. In the first section, an introduction to it provides an overview of the specification of functional and non-functional requirements of the software product, its objectives, as well as the scope, in addition to a description of the personnel involved in the development of the system.

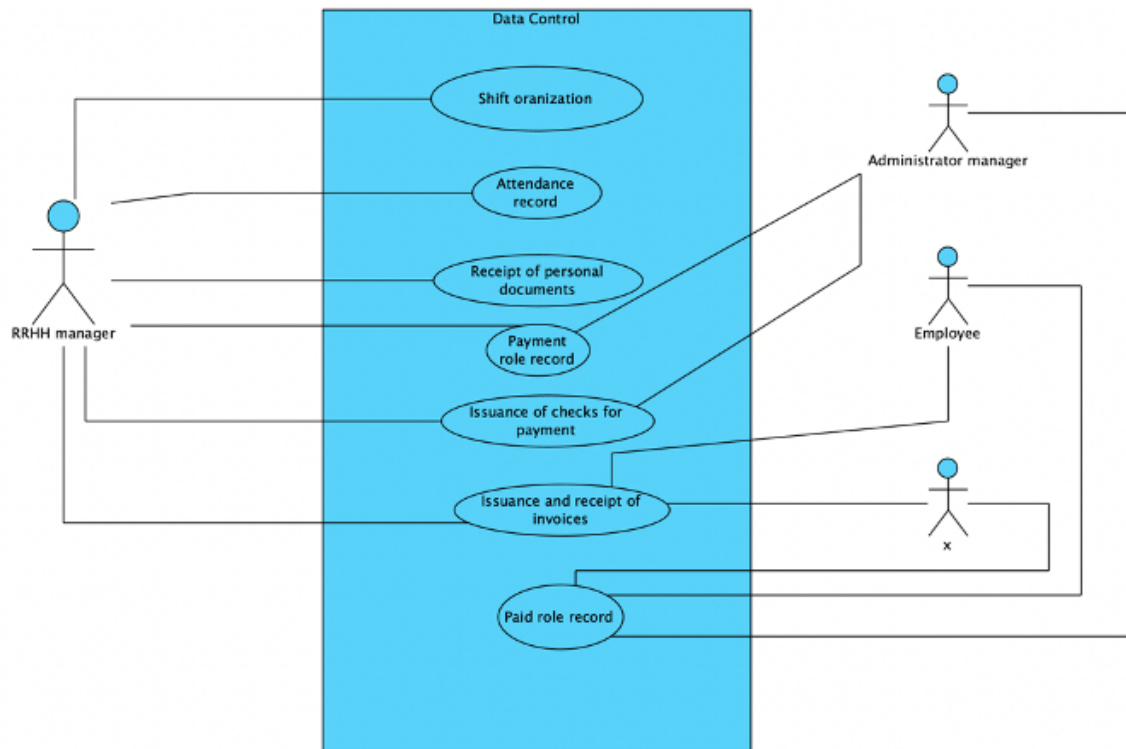
In the second section of the document, a general description of the system is made, in order to know the main functions that it must perform, the associated data and the factors, constraints, assumptions, main features, and dependencies that affect development, without going into excessive detail. The third section of the document is the one in which the Functional and non-functional requirements that the system must meet.

## **2. General description**

### **2.1 Product perspective**

Our project or application seeks to be a tool to manage the area of administration or human resources of the company, which will allow access only to authorized persons, either the director or the person in charge of managing that area for which they will need to have a correct username and password, already within the application it will be allowed to enter, read, update and delete worker data such as: name, id, gender, age, among others. You can also perform calculations or operations such as payroll to facilitate and speed up the work.

### **2.2 Product functionality**



The system aims to serve as support for people who have to keep accounts or administration of the workers in the company, so that the activity to be developed can be more efficient, fast and orderly, in the same way the program seeks to have security so that the Data cannot be manipulated by anyone.

The system has been divided into several modules so that it can meet the stated requirements:

- **Verify User**

This window will allow the user to enter the data that verifies that it is the person who can and has permission to modify the data within the company.

To do this, you must enter the user's name and password, if the data is correct, the application will allow you to advance to the next window in which you will have access to enter, read, update and delete data.

On the other hand, in the event that the data entered is incorrect, a window will be displayed notifying the user that the data entered is not correct, so they will not be given access to the next window and will have to repeat the process to the validation.

- **Register**

To access this window, the user must have approved the user validation in the previous window.

The user will be able to enter worker data such as: name, id, gender, age. And then click the add button so that these data are saved both on the computer and in the cloud.

Then, by clicking on the list register button, it will be possible to view the data that has been created in the system in a table, presenting its name, id, gender, age data, this will make it easier for the user to view the data that is loaded and increase the order.

- **Remove**

By clicking on the remove button, the user will be able to delete the data or the worker that has been entered by mistake or that no longer corresponds in the list, for this he will only have to select the worker that he wants to delete and then click on the remove button to validate this action.

- **Upload**

By clicking on the upload button, the user will be able to modify or update information of a worker that was previously registered, for this he will have to select the worker that he wants to modify and click on the upload button, with which a window will be displayed in the that you can modify the parameters and then modify that data in the cloud by clicking the upload button.

- **Payroll**

By clicking on the Payroll button, the user will be able to calculate the payment that must be made to the worker, for this a window will be displayed where he will have to enter the following data: hours worked, hourly pay, and then he must click on the calculate button and will show the calculated values such as basic salary, bonus discount, among others, so you can speed up calculations and operations.

- **Exit**

By clicking on the exit button, the user will exit the program keeping all the data or modifications that he has made in it.

## 2.3 User Characteristics

<b>Type of user</b>	Accounting-administration staff
<b>Formation</b>	University or Institute
<b>Abilities</b>	Ease of handling computing devices
<b>Activities</b>	Register in the system, generate workers, manage contact numbers, manage information, manage payments.

Type of user	Director
Formation	University or Institute
Abilities	Ease of handling computing devices
Activities	Manage the company

## 2.4 Restrictions

- The worker's data will be stored in a NOSQL database such as MongoDB, accessible from the pc and the online platform.
- The system must be accurate with information and simple to use, to avoid excessive use of time.
- It must be navigable from its different pages obtaining higher performance.
- Only the person in charge will be authorized to access the application through a username and password.
- It should only be installed to the company's database.

## 2.5 Assumptions and dependencies

- The MONGODB will be connected to the database of an account, if it is installed on another device it will have to be changed.
- The application must maintain a continuous flow, despite the internet connection.
- It can be monitored through the server, as the worker and salary are visible.
- It will be delivered fully operational without software reactivation license, to avoid future maintenance.

## 2.6 Foreseeable evolution of the system

Improve the use and implementation of different functions that contribute to a safer and more efficient management.

Avoiding connection and application relapse problems. It is estimated to provide this application to newly created enterprises and companies with few workers for better efficiency and control.

## 3. Specific Requirements

Human Resources Application Program

### 3.1. Requirements for external interfaces

### - 3.1.1 User Interfaces

The program shall display only what is necessary for the user to enter the requested information.

### - 3.1.2 Hardware interfaces

Monitor: This will show the interfaces and the necessary information to the user, so that he/she can navigate through the program.

Keyboard: It will be used for the user to type the information.

Mouse: It will allow the user to navigate through the different options of the program.

### - 3.1.3 Software interfaces

Desktop or laptop computer.

### - 3.1.4 Communication interfaces

The program communicates with its database through MongoDB Atlas (No SQL).

## 3.2 Functional Requirements

### - 3.2.1 Logging into the system

Use Case Name	Login to the System
Description	The system will allow users to log into the system by using a "user" and a "password" which is defined as "Admin" and "00245" respectively.
Actor	Natural person
System	<ol style="list-style-type: none"> <li>1) The program will ask you to enter a previously established "user" and "password".</li> <li>2) Enter the "user" and "password" in the "profile" window.</li> <li>3) Press the "Enter" button</li> <li>4) The system displays a new window called "register" when the "user" and "password" have been entered correctly, otherwise the following message "User / Incorrect Password" will be displayed.</li> </ol>

### - 3.2.2 The program shall allow the recording and display of worker data.

<b>Use Case Name</b>	Register
<b>Description</b>	The system will allow the entry of different data such as: name, id, gender and age.
<b>Actor</b>	Natural Person
<b>System</b>	<ol style="list-style-type: none"> <li>1) The program will ask you to enter a previously established "user" and "password".</li> <li>2) Enter the "user" and "password" in the profile window.</li> <li>3) Press the "Enter" button</li> <li>4) The system displays a new window called "register" when the "User" and "Password" have been entered correctly, otherwise the following message will be displayed "User / Incorrect Password".</li> <li>5) When the requested data has been entered, the person can press the "Add" button and the following message "Correct" will be displayed.</li> <li>6) If you want to visualize the different data that have been entered, press the button "List Register".</li> <li>7) If you need to remove any information entered, select it in the panel below and press "Remove".</li> <li>8) A message "Are you sure you want to delete this ID?" will be displayed, if so, press the "Yes" button, otherwise you can press "No" or "Cancel".</li> <li>9) If you want to upload the information to the cloud, press "Upload" and as in the previous point, a message "Are you sure to upload this</li> </ol>



	ID?" will be displayed, if so, press the "Yes" button, otherwise you can press "No" or "Cancel".
<b>Alternative flow</b>	<p>1) In case the person does not want to enter any data, he/she should press the "Exit" button and the program will close.</p> <p>2) If any data has not been entered correctly, the message "Error" will be displayed.</p>

### - 3.2.3 The program will allow for the calculation of workers' salaries

<b>Use Case Name</b>	Monthly payment
<b>Description</b>	El sistema permitirá calcular el pago mensual de los trabajadores, así como los respectivos descuentos.
<b>Actor</b>	Persona natural
<b>System</b>	<p>1) Click on the "PayRole" button.</p> <p>2) Fill in the "Hours worked" and "Hourly pay" fields.</p> <p>3) If you want to calculate the salary, press the "Calculate" button and you will be able to visualize the worker's salary.</p> <p>4) If new calculations are required, press the "New" button.</p> <p>5) If you need to exit this window, press the "Return" button.</p>

### - 3.3 Non-functional Requirements

The program must allow the user to interact with the program for data and information entry.

The program must not allow access to users who have not entered the incorrect user name or password.

5. Diagram casos de uso

