



PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Software Requirements Specification

Title: Human Resource Management System

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version



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Introduction

Purpose

A typical HR Department in any company is in charge of managing the classic employee lifecycle, which includes recruitment, onboarding, development, retaining, and offboarding, to broadly state. Our Human Resource Management System will help in automating these processes and enable a company to fully understand the characteristics and details pertaining to its workforce.

Intended Audience

The intended audience would be corporate companies with an HR Department. This software would also be able to provide services to smaller businesses, so they have a more effective technology in place to be able to manage personnel resources under the organization.

Product Scope

Human resources are undoubtedly the key resources in an organization, and the most difficult to manage. The objectives of the HRM span right from the manpower needs assessment to management and retention of the same. To this effect Human resource management is responsible for effective designing and implementation of various policies, procedures and programs. It is all about developing and managing knowledge, skills, creativity, aptitude and talent and using them optimally.

The Human Resource Management System (HRMS) aims to manage employee's information. HRMS is most important because it provides systematic and accurate information about the employees of the organization. This software provides multiple benefits such as minimize manual paperwork, decrease employee stress, reduce time lag in tasks, lower operational costs, remove spreadsheet dependency and improve internal communication.

References

- [HR Management System \(nevonprojects.com\)](http://nevonprojects.com)
- [\(PDF\) Human Resource Management System \(researchgate.net\)](https://www.researchgate.net/publication/312111111)
- [Human Resource Management System – Student Project Guidance & Development \(studentprojectguide.com\)](http://studentprojectguide.com)

Overall Description

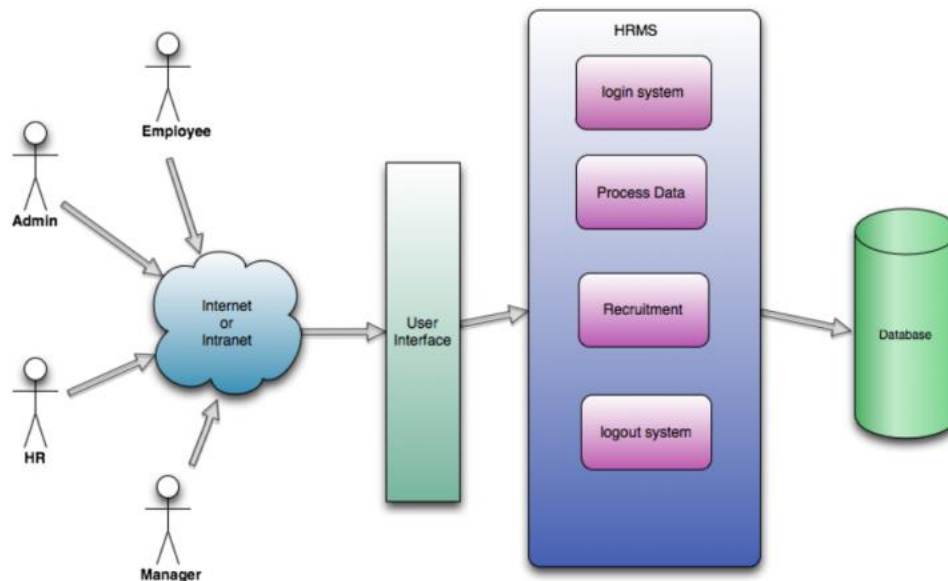
Product Perspective

Our product perspective, or external view, is aimed to be straightforward, user-friendly, and facilitate easy and fast accessibility. As stated, our product focuses on the employee life-cycle. Thus, we will have a menu with 5 options, which enables anyone from the HR Department to easily access any of the five stages. From a business and usage perspective, our product looks to serve HR departments solely, with quick and simple usage options. A human resource management system (HRMS) will be used by four types of employees. These types who have different roles can be stated as; admin, manager, HR, and employee. Every user enters the main authentication page and after that, the system will grant them authorization. After being authorized according to their permissions (role type) users will basically query and edit the database via HRMS.



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Product Functions

Recruitment, Onboarding, Development, Retaining, and Offboarding are components of an employee's life cycle. After discussion with members of the HR Department in a software service firm, we observed that the HR Department primarily deals with recruitment and onboarding. Thus, most of our product functions will look to facilitate the two. We look to have a one-stop place for details of all individuals who wish to join the software firm. Here, our product will provide functions such as extracting freshers' details, scheduling interviews, accepting/ rejecting the candidate, etc under the recruitments page. Under the onboarding page, all the employees who have accepted the offer will be displayed. In the onboarding process, candidates are expected to upload required documents such as MoUs, company insurance policies, etc. This page keeps a track of the documents submitted by the candidate. Further basic functionalities can be added to the Development, Retainment, and Offboarding pages in time.

User Classes and Characteristics

Our main user classes will be: Candidate, Employee, Project, Assignment, HR

CHARACTERISTICS OF CANDIDATE: Name, Email ID, Phone Number, Age, Gender, Date of Birth, Address, Degree, Branch, Year of passing, Resume.

CHARACTERISTICS OF EMPLOYEE: Employee ID, Employee First Name, Employee Last Name, Hire Date, Dept No, Dept Name, Role, Salary.

CHARACTERISTICS OF PROJECT: Project ID, Project Name, Dept Name, Max Hours, Start Date, End Date **CHARACTERISTICS OF ASSIGNMENT:** Project ID, Employee ID, Hours Worked



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Operating Environment

The server-side components of the software system must operate within a Windows operating system environment. The client-side components of the software system must operate within a common web browser environment.

Design and Implementation Constraints

A design constraint in our product is that registering for recruitment is not native to the product. Thus, employers will have to accept applications via a public form, or by manually entering data. The entries submitted into the form are extracted and stored in our products database. Setup and maintenance of the product, such as installation, hosting, etc. are the responsibility of the customer.

2.6 Assumptions and Dependencies

No assumptions and dependencies have been taken into consideration during the finalization of the product.

External Interface Requirements

User Interfaces

< An External User Interface is the hardware, software or database elements with which a system or component must interact .

In our product, there are two external user interfaces.

i) An application form – This interface helps applicants to apply for a position in the customers' company. This is important as it is one of the most efficient ways for a company to receive applications.

ii) Website for HR Manager – This interface is that which is visible to the HR Manager. This will be a website, which can operate on a web browser environment. This would contain details of the employees.>

Software Interfaces

< Internal software interface - Makes use of PHP and MySQL to retrieve information from the backend.

External software interface – As of now, there are no exposed software interfaces/ APIs to the external world. >

Communications Interfaces

< Standard HTTP and HTTPS protocols are supported by the product. No specific web browser requirements.>



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<if any Hardware Interfaces include as 3.4 Hardware Interfaces>

Analysis Models

<Include pertinent analysis models, such as use case diagrams and if applicable entity-relationship diagrams.>

System Features

System Feature 1

Recruitment Interface:

- a. *View all candidates*
- b. *View details of candidates*
- c. *Add new candidate*
- d. *Remove existing candidate*
- e. *Specify recruitment process*
- f. *Schedule interactions with candidates*
- g. *Accept/ Reject candidate*

System Feature 2

Onboarding Interface:

- a. *View employees*
- b. *Add a list of documents to be received*
- c. *Update the list of documents as and when they're received*

Onboarding complete/ Dropped out

System Feature 3

Development Interface:

- a. *View all projects*
- b. *View active projects*



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- c. *View upcoming projects*
- d. *View completed projects*

Other Nonfunctional Requirements

Performance Requirements

We look to achieve a quick speed of response and execution time by our product, with maximum throughput. We also look to keep storage capacity flexible, aiming at lesser storage, to retain an efficient space-time ratio.

Safety Requirements

Most HR systems are cloud-based. The software is hosted by the vendor, and corporate access to the application and data is available through a web browser or mobile device.

HR software typically provides features to track absences and capture working hours on a timesheet.

Ensure that the system can accommodate corporate policies and practices. Validate that the system can do the following:

- *provide the ability to configure all the absence types used by the company;*
- *define which absence types apply to which employee populations;*
- *produce schedules and timesheets that display and capture required information;*
- *make timekeeping simple for employees using a mobile device or browser;*
- *provide exception reporting to highlight missed shifts, missed clock-outs and overtime;*
- *specify statutory holidays by country and region and configure eligibility requirements;*
and
- *provide approval workflows and reminders for absence requests and completed timesheets.*



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Security Requirements

< The product can be subject to testing to ensure security. Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

Software Quality Attributes

1. *Usability – The software interface must be user friendly. All the employees and HR can efficiently use the software with ease.*
2. *Reliability – The system software runs 24/7 , i.e. keeps running over time*
3. *Availability – It is available whenever needed, without any disruptions. The employee can access their data at any point of time, and is never denied access.*
4. *Portability – It can run on numerous platforms such as data portability, hosting , viewing etc.*
5. *Flexibility and supportability – Any modifications needed to be made can be done efficiently*

Business Rules

\1. Employment contract - As per India's employment laws, it is essential to [file proper documentation of the employees](#) to ensure appropriate navigation through the complex and diverse employment framework.

Therefore, having accurate and updated documents that prove the employee's compliance to the company will help in the long term and save them from any legal hassles later. Therefore, you need to follow the labour and wage laws while processing documentation.

2. Employee wages

The job of the HR department of the company is to manage the employee payroll effectively. This includes offering competitive salaries to employees and staying in compliance with the government policies.

3. Code of conduct

The policy includes dress code, equal rights to all, electronic usage policy, conflict of interest, media policy, proper work environment etc. It also contains the rules and penalties if an employee breaches or violates the code of conduct.

4. Leave policy

The policy should include a proper bifurcation of the leaves into paid leaves, sick leaves or casual leaves etc. It must also mention public holidays.

HR policies in India 2022 should also provide provision for unpaid leaves along with detailed rules on the salary cut on late arrivals and half days.



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Every company with more than 10 employees is required by law to provide maternity leave benefits too.

6. Sexual harassment workplace policy

According to The Sexual Harassment Act, 2013, the company must implement proper steps to protect women employees and interns as well as any woman who visits the company. Moreover, every company should have a sound sexual harassment policy to address harassment complaints by women employees actively.

7. Leave policy

the employer needs to ensure that they implement a proper leave policy that lays down the steps for an employee who wishes to leave the company.

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Field Layouts

An Excel sheet containing field layouts and properties/attributes and report requirements.

Sample sheet with information required to register the customer

Field	Length	Data Type	Description	Is Mandatory
Account Number	16	Numeric		Y
ISFC code	11	Alphanumeric		Y
Card Amount	20	Numeric		Y
Mandate Start Date	8	Date	Date of Mandate Registration	N
Mandate End Date	8	Date	Date of Mandate Expiry	N
Status	25	Alphanumeric	Status of Registration	Y
Customer Name	60	String		Y



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Reject Reason Code	4	String	Reject Reason code in case mandate is rejected	N
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Sample Report Requirements: Include the fields to be included in the report

Registration Report

Transaction Report

Bank Account Number

Transaction Reference Number

ISFC Code

Bank Account Number

Bank Name

IFSC Code

Account Status

Bank Name

Account Type

Customer Name

Customer Name

Card Number

Card Number

Debit Transaction Amount

SI Start Date

Transaction Date

Status

Status

Remarks

Debit Attempt Number

Remarks

Appendix C: Requirement Traceability Matrix

Sl. No	Requirement ID	Brief Description of Requirement	Architecture Reference	Design Reference	Code File Reference	Test Case ID	System Test Case ID



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