**Introduction**

Human Resource Management (HRM) software development is the process of creating digital solutions to streamline, automate, and enhance HR processes within organizations. As businesses grow, managing tasks like employee recruitment, onboarding, payroll, performance evaluations, and attendance tracking becomes increasingly complex. HRM software addresses these challenges by providing an integrated platform where HR teams and employees can manage essential functions more efficiently.

Modern HRM systems incorporate various modules—such as employee management, performance tracking, task assignments, and reporting tools—that empower HR professionals to make data-driven decisions, improve employee engagement, and foster overall organizational growth.

**FrontEnd Requirements**

When designing a **Human Resource Management (HRM) system**, the front-end requirements should focus on usability, accessibility, and a clean, intuitive interface to handle a wide range of HR functions.

**User Interface Design(UI)**

**Clean and Intuitive Layout:** The UI should be easy to navigate, with a clear structure for dashboards, menus, and key actions.

* **Dashboard:** A main landing page with key stats (e.g., employee attendance, leave requests, recent activities).
* **Navigation Bar:** A responsive sidebar or top navigation that provides access to key modules (e.g., Employee Management, Payroll, Time & Attendance, Reports, etc.).
* **Responsiveness:** The design must be responsive to ensure usability across various devices like desktops, tablets, and mobile phones.
* **Consistency:** Uniform use of colors, fonts, and design elements across the platform to maintain a professional and cohesive look.

**Front End Technology.**

Candidates need to develop a User friendly Interface using any Following Frontend Framework

1. Bootstrap
2. Reactjs
3. Angular

**Note:** Developing Reactjs or Angular based Application will be a Added Advantage for the candidate.

**Backend Requirement**

Designing the backend for a **Human Resource Management (HRM) system** requires careful planning to ensure scalability, security, performance, and seamless interaction between the system's core functions. Below are the key **backend requirements** for an HRM system, covering database architecture, security, API management if required and business logic implementation.

**Database Design and Management**

The HRM system needs a well-structured and normalized relational database to handle the extensive data it collects and processes.

* **Relational Database (SQL):** Use a relational database like MySQL, PostgreSQL, or SQL Server to store and manage structured data such as employee details, payroll records, and performance metrics.
  + **Key Tables:**
    - Department: Stores Department information
    - Role: Stored the role assigned to a User(Admin, Manager,Team-Leader and Employee) .
    - User: Manages User.
    - Performance: Tracks employee reviews, feedback, goals, and accomplishments.
    - Task: Manages Task assigned for the User.
    - Leave: Manages leave requests, approvals, and balances.

Apart from above table there can be more number of tables as per the requirements, candidate need to design those tables and establish the relationship if required with other tables.

**Relationship Management:** Establish relationships between tables (e.g., one-to-many relationships between User and Task   table).

**Github**

1. Candidate must create a repository on the Github.
2. After completion of Each module candidate. must push the code to the repo, so that Internship evaluator at any can evaluate updated code.
3. Readme file must be designed Properly.

**Deployment**

1. candidate must deploy the project on any free server which support the backend Framework.
2. After completion of every module or topic candidate need to deploy it on server.
3. Application must be running 24 x 7 on live server after completion of 1st module.
4. Evaluator can check your domain link and completed functionality link at any time.

**Introduction**

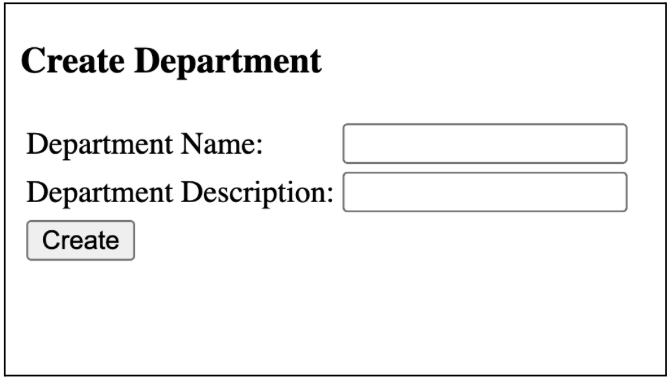
The Department Creation Module is a crucial part that allows administrators to organize and structure the company into various departments.This module enables the creation, modification, and management of departments within the organization, providing a clear hierarchy and improving employee management.

**Table Name**: department

|  |  |  |
| --- | --- | --- |
| **Column name** | **Datatype** | **Description** |
| dept\_id | int(pk,auto\_increment) | Unique identifier for each department |
| dept\_name | varchar(100) | Name of the department(IT,Sales etc) |
| description | varchar(300) | Small description about the department |
| created\_at | datetime | Timestamp when the department was created. |
| updated\_at | datetime | Timestamp when the last department was updated. |
| status | varchar(50) | This is a boolean field. Default value is True |

Department Management System **Add Department**Only Admin can create a new department.

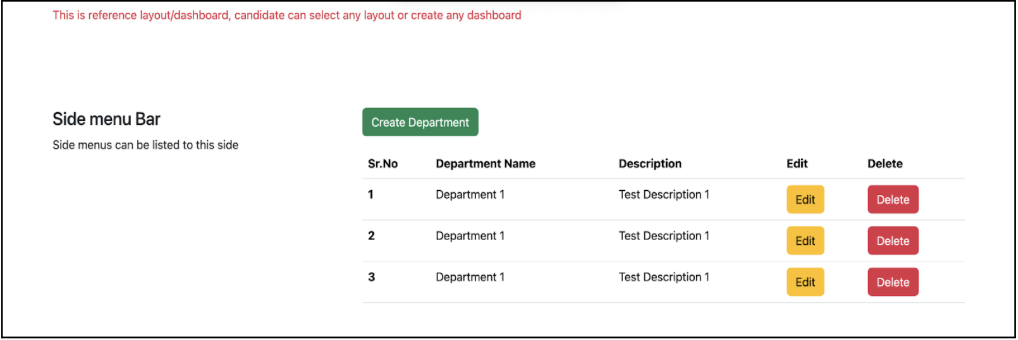
**Reference Form**



candidate need to create UI as shown above. Above UI is for reference purpose. Candidate  can create their own UI with given fields.

**Dashboard Creation**

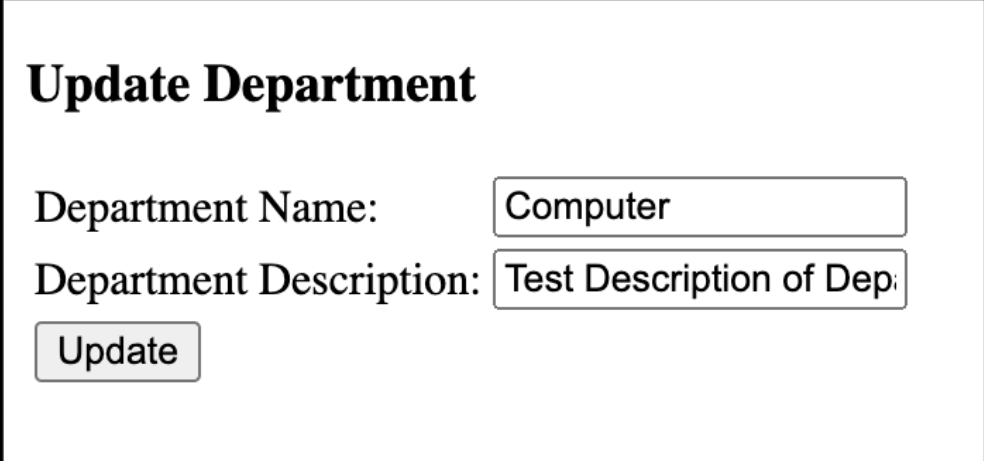
Candidate need to design the Dashboard where admin can manage department add , update and delete functionalities.



Additionally candidate can create search box for department search provision to User.

**Modify Department**

Only Admin can modify the department's details such as Department name and description of the department.



After updating department information user must be directed to Dashboard.

**Delete Department**

Admin can delete a department. Implement soft delete by providing a column status with boolean values for active or inactive in the database for department activation or inactivation. While delete or making department inactive, a  warning message  pops up must be given to the admin as making department inactive will cause department inactive for the employee linked with the department, so first assign different departments to those employees and then make department inactive.

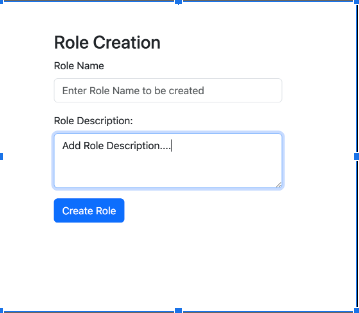
**Introduction**

The **Role Creation Module** in the HR management system is an essential feature that enables administrators to define and manage different roles within the organization. Roles define the level of access and permissions that employees have in the HR system, ensuring a secure and organized way of managing the company's workflow.

This module allows administrators to create new roles, such as Admin, Manager, Team Leader, and Employee. By assigning roles to employees, the system ensures that individuals have access only to the data and functionality necessary for their job responsibilities.

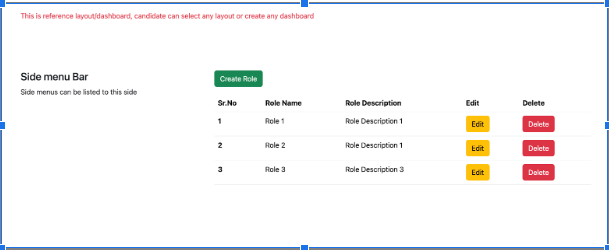
Role management system

1. **Adding a Role**: Only Admin can add a role.

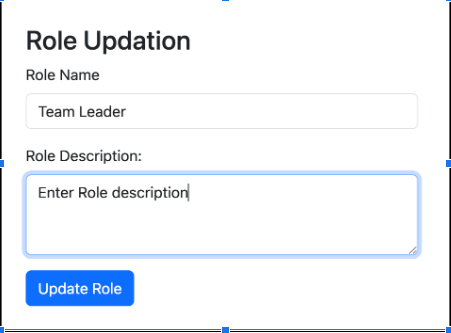


**Dashboard  Role Creation**

Dashboard contains a view of all the roles created with edit and delete button functionality for each role. With the Create Role button admin can access Create role form to create a new role as discussed above.



**Update  Role Details**



After Update user must be automatically directed to the Dashboard

**Delete Role**

Only Admin has permission to delete roles. Implement soft delete by providing a column status in Database table as shown below in the database section with Boolean values. While delete or making role inactive, a  warning message  pops up must be given to the admin as making role.

Table name: roles

|  |  |  |
| --- | --- | --- |
| **Column name** | **Datatype** | **Description** |
| role\_id | int(pk,auto\_increment) | Unique identifier for each role |
| role\_name | varchar(100) | Name of the Role(Admin,Manager,Team leader and Employee) |
| description | varchar(200) | Small description about responsibility of the role. |
| created\_at | datetime | Timestamp when role was created |
| updated\_at | datetime | Timestamp when role was last updated |

2. Assignment

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After completion of Role Management System, candidate need to upload the code or push the code to Github.

Also candidate need to deploy the application on any free server  and prepare the End User Documentation for the module developed.

With respect to the Role Management System module completed, please provide following details as a part of Assignment.

1. Github Repository Link
2. URL of module Hosted on free Server.
3. Prepare the end user documentation.

Note: Upload Assignment in PDF format.

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