

Company HR Document System

1. Project Overview

A **web-based HR management system** where:

- **Admins** can manage departments, employees, and HR documents.
- **Employees** can view and download their own documents.
- **Role-based access** ensures privacy and data security.
- **Advanced reports** for HR analytics.

Tech Stack:

- Java (Servlets + JSP + JDBC)
 - MySQL / PostgreSQL
 - HTML/CSS/Bootstrap
 - Tomcat server
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2. Core Features

2.1 Authentication & Roles

- **Login/Logout** with session-based authentication.
 - Roles:
 - **Admin**: Full access (manage employees, upload documents, view reports).
 - **Employee**: Limited access (view/edit profile, download own documents).
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2.2 Department Management

- Admin can:
 - Create, update, delete departments.

- View all employees in a department.
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2.3 Employee Management

- Admin can:
 - Add new employees.
 - Edit employee details (name, department, contact info).
 - Assign employee to a department.
 - Employee can:
 - Update personal details (except department assignment).
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2.4 Document Management

- **Admins** upload HR documents:
 - Contracts
 - Payslips
 - ID scans
- **Employees** can download only their own documents.
- Document types stored as metadata (e.g., PDF, DOCX, Image).

Relations:

- Department → Employees (**One-to-Many**)
 - Employee → Documents (**One-to-Many**)
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2.5 File Upload & Download

- Admin can upload files linked to an employee.
 - Secure downloads so employees can only access their own files.
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2.6 Search & Filtering

- Search employees by:
 - Name
 - Department
 - Date of joining
 - Filter documents by type & date uploaded.
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2.7 Reports & Analytics

- **Admin Dashboard:**
 - Total employees per department.
 - Total documents uploaded per month.
 - Employees without documents.
 - Most common document types.
 - **Advanced SQL Queries:**
 - Count of employees per department.
 - Average tenure of employees.
 - Employees without contracts uploaded.
 - Document upload activity by month.
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3. Database Schema

Users

Field	Type	Notes
id	INT PK AI	
name	VARCHAR(100)	
email	VARCHAR(100)	Unique
password	VARCHAR(255)	Hashed
role	ENUM('admin','employee')	

Field	Type	Notes
created_at	TIMESTAMP	Default now

Departments

Field	Type	Notes
id	INT PK AI	
name	VARCHAR(100)	
created_at	TIMESTAMP	Default now

Employees

Field	Type	Notes
id	INT PK AI	
user_id	INT FK	FK → Users(id)
department_id	INT FK	FK → Departments(id)
date_joined	DATE	
phone	VARCHAR(15)	

Documents

Field	Type	Notes
id	INT PK AI	
employee_id	INT FK	FK → Employees(id)
title	VARCHAR(100)	
file_path	VARCHAR(255)	Stored path to file
type	ENUM('contract','payslip','id')	
uploaded_at	TIMESTAMP	Default now

4. API Endpoints (for AJAX or Postman Testing)

Method	Endpoint	Role	Description
POST	/login	Public	Login user
POST	/logout	Auth	Logout user
GET	/departments	Admin	List departments
POST	/departments	Admin	Create department
PUT	/departments/{id}	Admin	Update department
DELETE	/departments/{id}	Admin	Delete department
GET	/employees	Admin	List employees
POST	/employees	Admin	Create employee
PUT	/employees/{id}	Admin	Update employee
GET	/documents	Admin/Employee	List documents (filtered by role)
POST	/documents	Admin	Upload document
GET	/documents/{id}	Admin/Employee	Download document
GET	/admin/reports	Admin	View analytics