

Employee Management System

A Project Report

**Submitted in partial fulfillment of the
Requirements for the award of the Degree of**

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

By

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**Under the esteemed guidance of
Prof. Omkar Sherkhane**

DEPARTMENT OF INFORMATION TECHNOLOGY



MAHATMA EDUCATION SOCIETY'S

**PILLAI COLLEGE OF ARTS, COMMERCE & SCIENCE
(AUTONOMOUS)**

(Affiliated to University of Mumbai)

NEW PANVEL – 410206 , MAHARASHTRA

YEAR 2022-2023

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PILLAI COLLEGE OF ARTS COMMERCE & SCIENCE
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DEPARTMENT OF INFORMATION TECHNOLOGY



CERTIFICATE

This is to certify that the project is entitled "Employee Management System", is bonafide work of Mr.Rahul Thakur bearing Seat.No: 8554 submitted in partial fulfillment of the requirements for the award of degree of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

Date:

Coordinator

Internal guide

College Seal

External Examiner

ACKNOWLEDGEMENT

I, **Mr.Rahul Thakur** student of **Pillai College Of Arts, Commerce & Science (Autonomous), New Panvel** would like to express my sincere gratitude towards our college's Information Technology Department.

I would like to thank Mrs. Deepika Sharma (Vice Principal) for granting me the opportunity to build a project for the college. Last but not least I thank our guide Prof. Omkar Sherkhane for his constant support during this project. The project would have not been completed without the dedication, creativity and the enthusiasm my family provided me.

Yours faithfully,

Rahul Thakur
(Final Year Information Technology)

DECLARATION

I hereby declare that the project entitled, **“Employee Management System”** done at **Pillai College Of Arts, Commerce & Science (Autonomous), New Panvel**, has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in partial fulfillment of the requirements for the award of degree of **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)** to be submitted as final semester project as part of our curriculum.

Name and Signature of the Student

Mr. Rahul Thakur

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CHAPTER-1

INTRODUCTION:

An employee management system is a distributed system developed to maintain the employee details and the company workflow process systematically.

EMS helps to eliminate the manual process and saves a lot of time and money. This system maintains the professional and personal details of the employees and the company in a safe manner. The employee management system lowers the burden and the pressure on HRs and the business managers. Thanks to the technology which offers us a plethora of solutions which makes the work easier and faster. It really helps in increasing efficiency of project

Some of the common benefits of having an EMS in your organization are:

- Efficiency and Better Accuracy
- Fewer compliance risks
- Boosted Profitability
- Very Few Manual Errors
- Higher Motivation
- Employee Satisfaction
- Well Organized task
- Better Employee Relation

BACKGROUND:

Employees are the backbone of any company therefore their management plays a major role in deciding the success of an organization. Human Resource Management Software makes it easy for the employer to keep track of all records. The ever changing trend in technology brought the necessity for the automation of everything from paper-and-pen based to absolute computer domination. The overwhelming emergence of computers paved way to easier access of information that leads to increased production, efficiency and reliability.

Large and even small and medium sized companies have always implemented a system (whether electronically or manually) to be able to manage its employees effectively. The effective management of these records ensures sound decisions based on full, accurate and up-to-date information to be made. This also ensures that any decision made can be traced, scrutinized and justified if necessary.

The Human Resource segment have long used such information to track employees' performance, incentives, problems etc. to streamline the company's input and consequently, maximize its productivity.

It requires a proper understanding of how the industry works and makes salaries of employees. EMS requires both understanding of backend and frontend, and one must make sure that both of them sync properly. We require proper understanding of databases and designing of databases such that every need of the system can be achieved.

OBJECTIVE:

- Develop a well-designed database to store employee information.
- A user friendly front-end for the user to interact with the system.
- Easy retrieval of employee information.
- Ability to sort employee queries by departments.
- Remove details of employees no longer working in the organization.

SCOPE AND PURPOSE

- ***Employee profiles:***

Employees will have access to their personal profiles and will be able to edit their details.

- ***Electronic leave application:***

Complete elimination of paperwork in leave management by enabling an employee applies for leave as well as checks their leave status through the system. This will also enable the HR manager to accept/reject leave application through the system

- ***Project Management:***

Assign tasks and projects to employees, assign a project team and keep track of the progress.

- **Report generation**

The HR manager will be able to generate timely reports in order to monitor employees and this can be used for performance appraisals. The reports will have all the information of an employee from educational background, trainings attended, projects done as well as technical skills.

- **Recruitment Process:**

The admin will add an employee and a default password and employee id will be generated and sent to the new employees email. The HR manager will then have the ability to add an employee's information to the database.

CHAPTER-2

○ Survey of technologies:

1. The Use of Performance Management Tools:

The use of employee and self-service management tools allow employees to access and manage company data. Several different self-service portals also enable Human Resources to allow employees to perform a variety of tasks.

2. The Ability to Collaborate Between Departments:

Collaboration is one of the most essential methods of communication for your business. This type of communication within all departments can help to make your business successful.

3. The Use Of Technology Based Workgroups:

Employee workgroups can help your employees engage, sync and share information throughout the lifecycle of a project.

4. Employee Training And Education:

Training and development is an essential part of most businesses to remain competitive. Blended learning tools allow your employees to maintain a flexible schedule. Typically, blended learning consists of using e-learning tools or virtual classrooms in addition to in-person sessions.

➤ Fact finding techniques:

There are seven common fact-finding techniques

1. Sampling of existing documentation, forms and databases
2. Research and Site visits
3. Observation of the work environment
4. Questionnaires
5. Interviews
6. Prototyping
7. Joint requirements planning

Sampling of existing documentation, forms and databases

The best way to analyse the existing system is to collect facts from existing documentation rather than from human sources.

There are various kinds of documents to collect facts from existing documents. These include:

- e-mails, customer complaints, suggestion box notes and reports that document the problem area
- problem performance reviews, samples of completed manual forms and reports and samples of completed computerized forms and reports
- various types of flowcharts and diagrams, program documentation and user training manuals

System analyst uses sampling techniques in order to organize the above documentation. Sampling technique is the process of combining a representative sample of documents, form and records (Bentley, Whitten, 2007). According to these authors there are two commonly used sampling techniques namely randomization and stratification. Randomization is the process of selecting sample data randomly. Stratification is the systematic process to deduct the variance of sampling data. We can have better understanding of the system due to the analysis of existing documents, forms, files related to the current system.

○ Fact finding techniques:

Since its web-based software, we decided to use:

- **Apache (webserver)**
- **PHP**
- **MySQL**

WHY?? This because they are:

- **(Web slave/advantages of apache, 2011) Flexible.**
- **Its open source so it's cheap.**
- **It is efficient and easily managed. We shall be using the following software**

APACHE: Free available web server. This allows MySQL and PHP to run on it.

PHP: Hypertext Pre-processor. It is a widely used general- purpose scripting language that is especially suited for web development and can be embedded into HTML. Above all its free that is open source.

MySQL: It's a relational database management system (RDBMS) that runs as a server providing multi- user access to a number of databases.

PHPMyAdmin: It is open source software written in PHP with the intention of handling the administration of MySQL over the World Wide Web. It also supports wide range of MySQL operations.

JAVASCRIPT: It is a scripting language that used to make web pages interactive.

HTTP: Hyper Transfer Protocol (HTTP) is a set of rules for transferring files (text, graphic, images, sound, video and other multimedia files) on the World Wide Web (WWW).

CHAPTER-3

○ MODULES OF PROPOSED SYSTEM

An employee management system solution is most commonly considered as a set of software tools that help **manage a wide variety of core functions**. Those tools or different areas of functions are typically referred to as modules.

These software modules cover a large range of the employee world that can help make processes faster, automate actions, give centralized access to information, and more. The main functions they cover include:

- Employee Information
- Recruitment and Onboarding
- Training and Development
- Time and Attendance
- Absence Management
- Workforce Management
- Payroll Management

Employee Information Module

One of the central points of most employee management system is a centralized data collection module. This information creates the building blocks for interaction between other key modules. Now, your company will have a unified way to track any sort of employee information.

Recruitment and Onboarding Modules

A large portion of HR operations is based on handling the **employee life cycle**. This means you've probably had to deal once or twice with the recruitment and onboarding of new hires. With a proper employee management system recruitment module, you can make hiring a piece of cake, with potential features including:

Training and Development Module

At some point in the employee life-cycle, they might require some sort of training. This employee management system module provides various ways to manage employee training and development. Your company can offer necessary training such as certifications, safety courses, role-specific training, etc

Time and Attendance Module

Tracking the hours worked and schedules of a few employees isn't too bad, but the bigger a company is, the harder your work becomes. An employee management system time and attendance module can help manage your employee time clocks for both physical and remote workers. You can then use the data to compile timesheets or trend reports for better analytics.

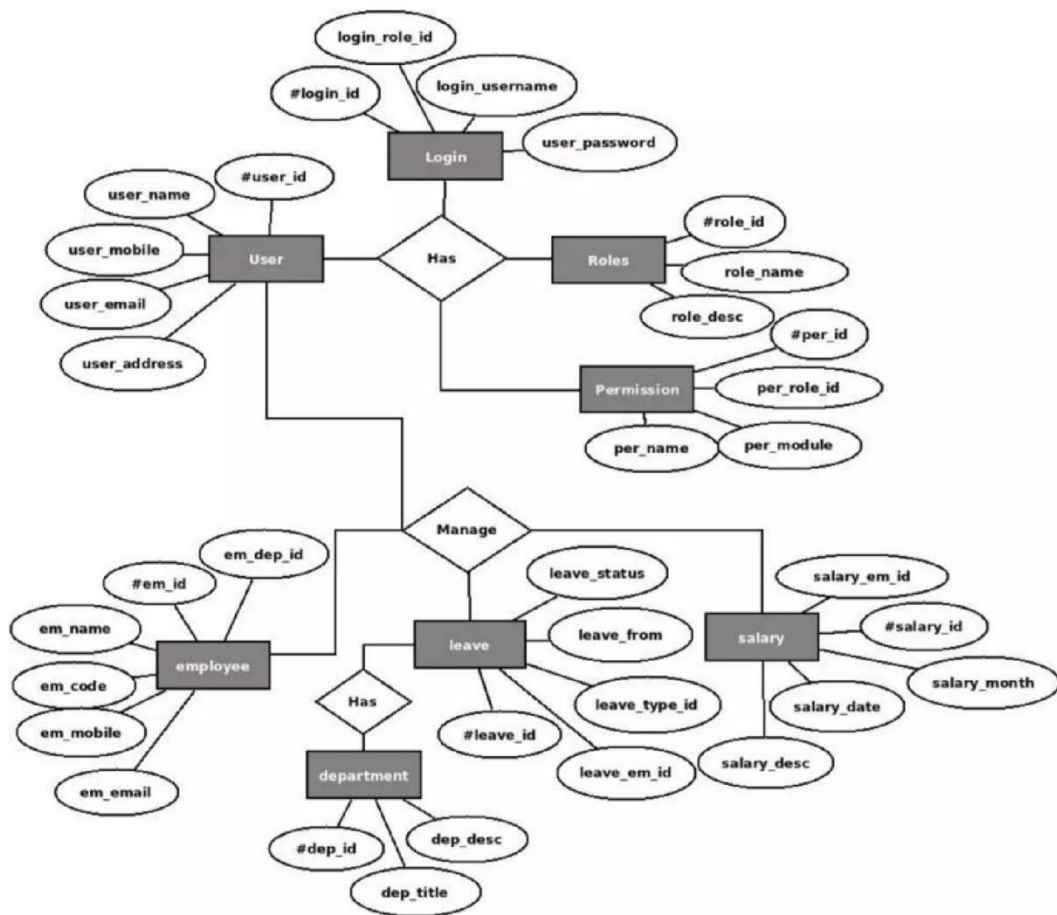
Absence Management Module

Eventually, someone at work is going to have a baby, a critical doctor's appointment, or just a nice vacation. But you probably have better things to do than track all of these things for potentially tens or hundreds of employees.

Payroll Management Module

With this employee management system module, you can rest easy when dealing with compensation management. A payroll management module uses your centralized employee data to link and automate various parts of the process. Automating your payroll doesn't just **simplify the management process**, but it also reduces any unwanted errors, making sure that every employee gets paid exactly what they're owed.

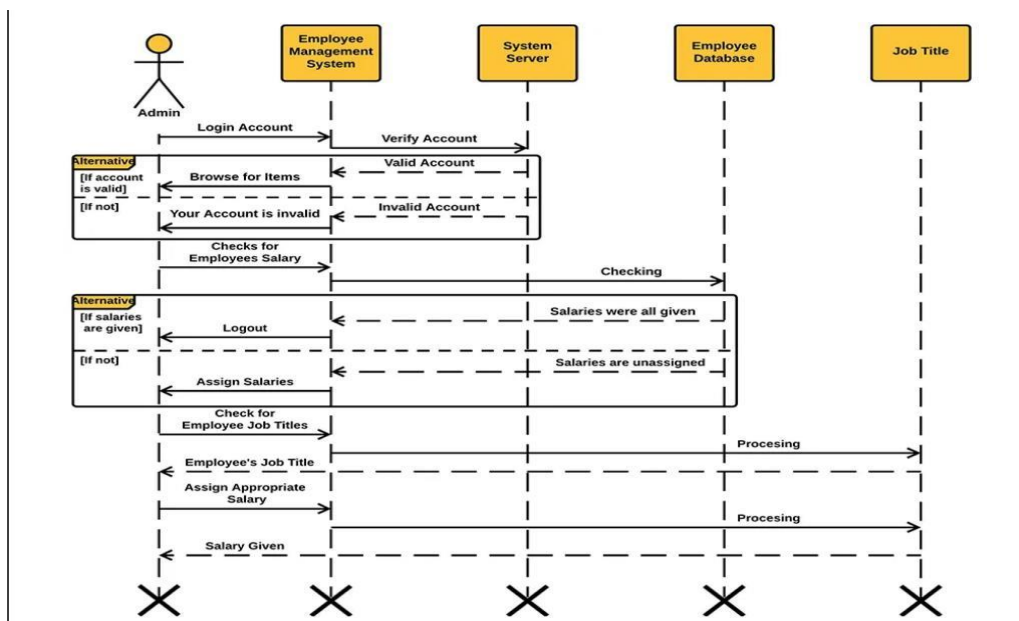
➤ ER Diagram:



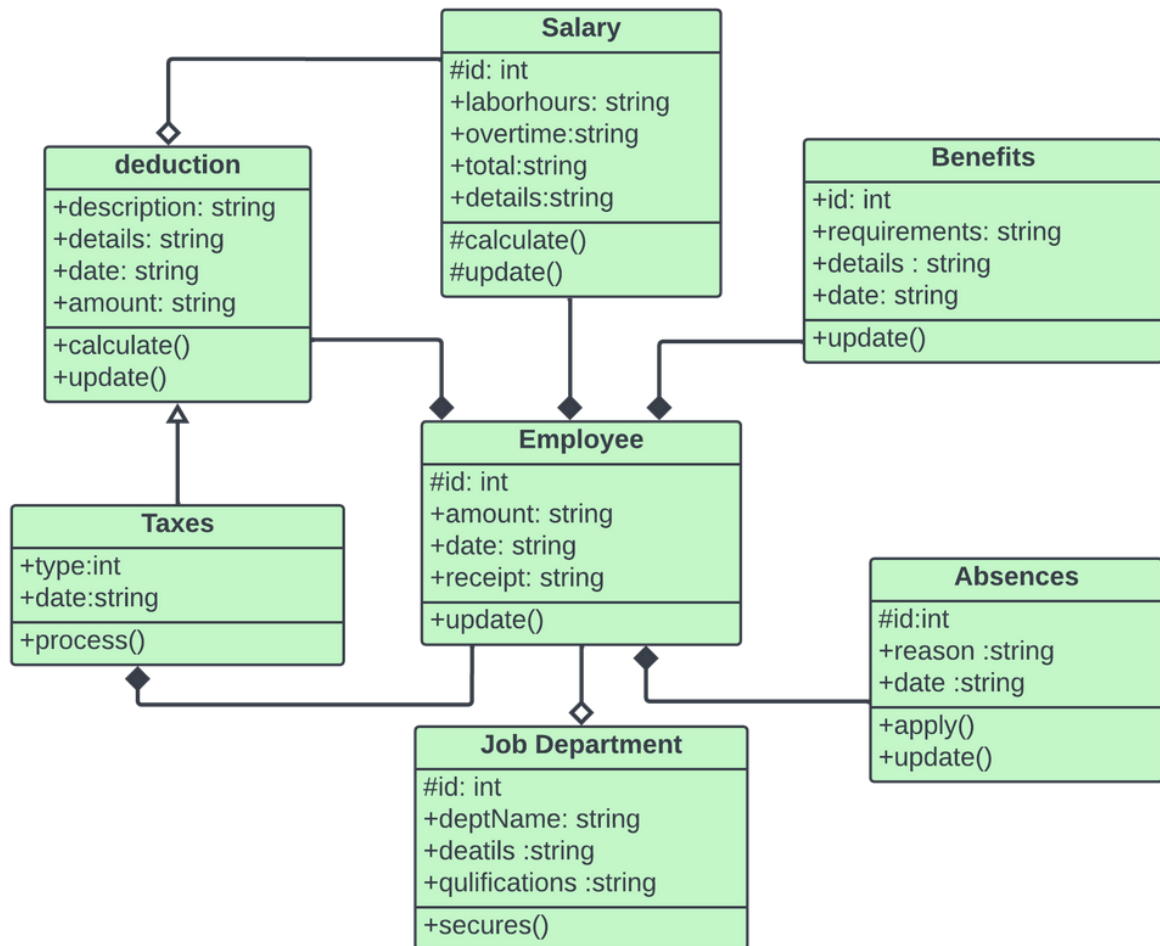
➤ Use case Diagram:



➤ Sequence Diagram:

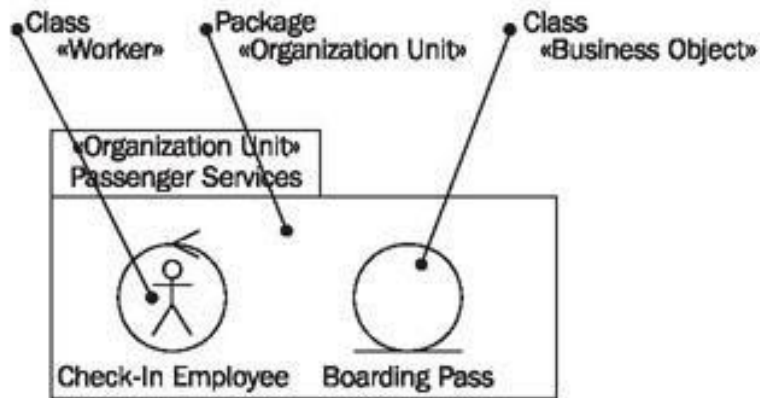


➤ Class Diagram:

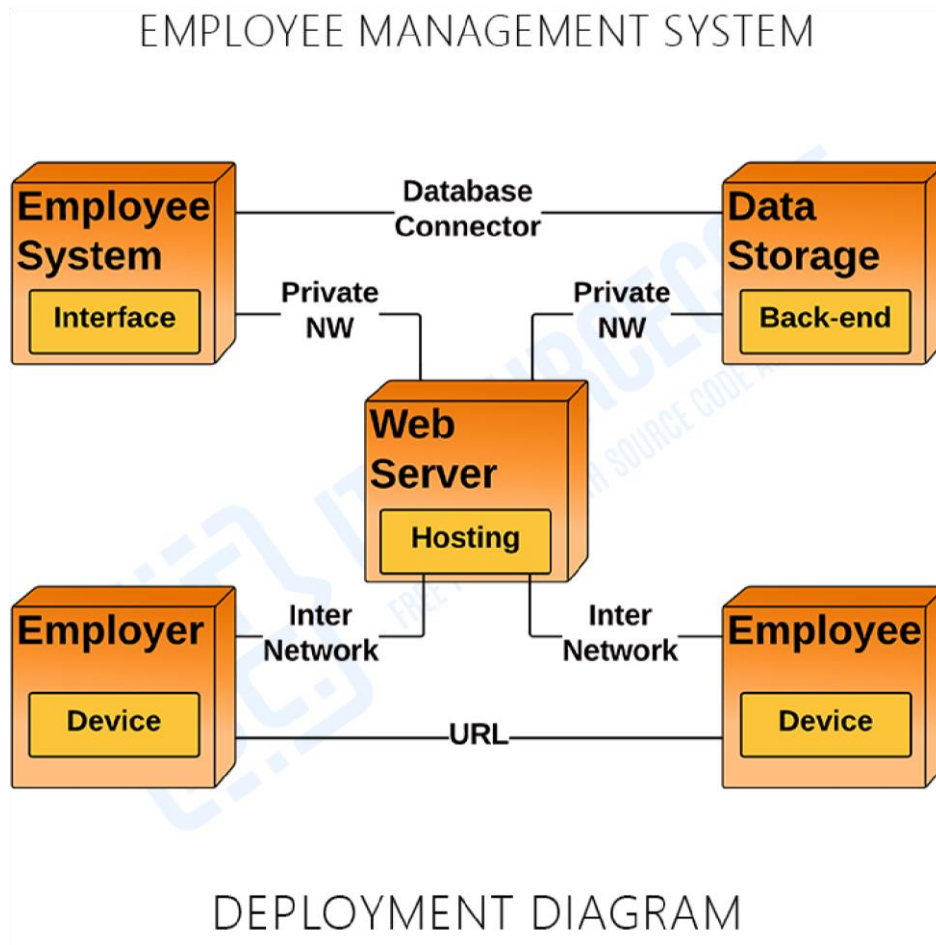


EMPLOYEE MANAGEMENT SYSTEM UML CLASS DIAGRAM

➤ Package diagram:

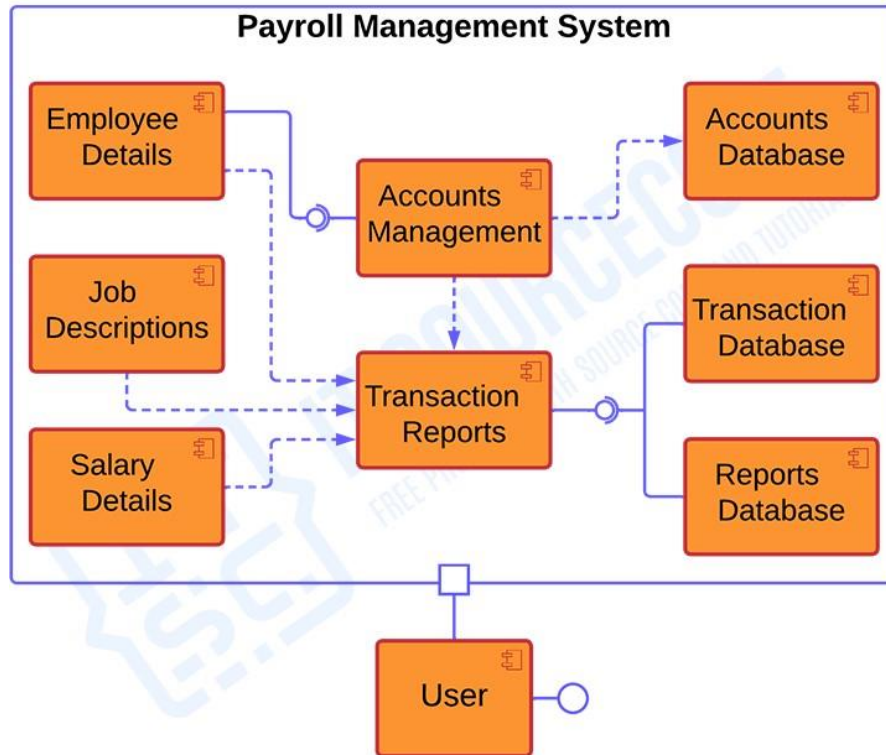


➤ Deployment diagram:



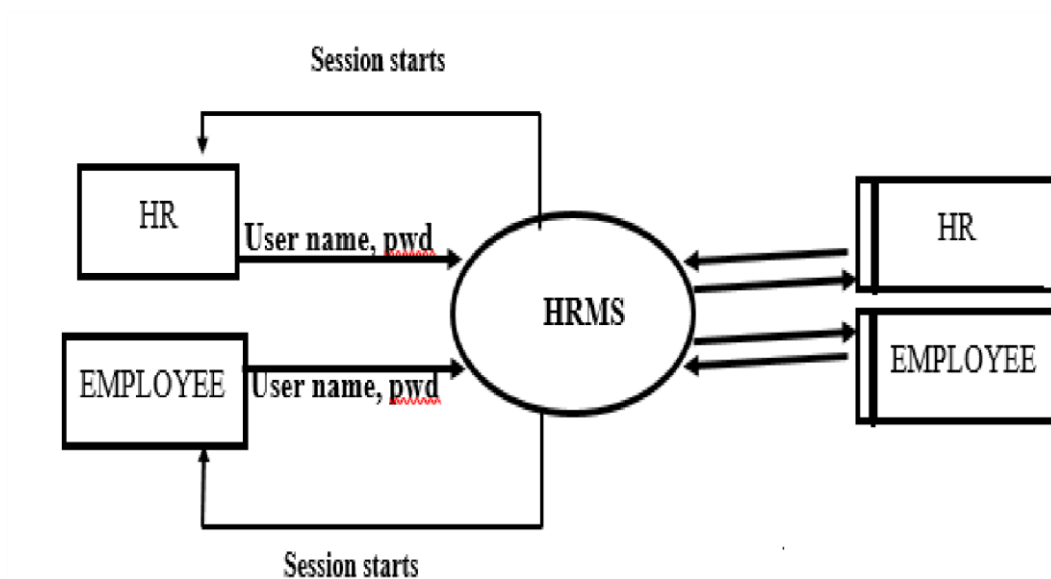
➤ **Component diagram:**

PAYROLL MANAGEMENT SYSTEM



COMPONENT DIAGRAM

➤ **DFD:**



GANTT CHART



CHAPTER- 4

System Design

4.1 Basic Modules:

Login page: After registering successfully employees can login with name and password

Home Page: In Home page, I have different pages access like department,leaves,employees,salary.

Registration:In this newly joined employess can be registered with their private and professional details which can help the company to indentify them.









































Departments:In this module all the registered employees are segregated with the skills they have build over the years which can help them in the way of promotion

Leaves:In this section employees and apply for leaves for whatever necessary reason they seem fit and the HR decides weather to accept or decline their leave





















Salary:This is where the aggregate salalry of all the employees are stored which can help the company in evaluation and their turnover of corparation

4.2)DATA DESIGN,INTEGRITY AND CONSTRAINTS

Add Employee Table

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Salary Table

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Leaves Table

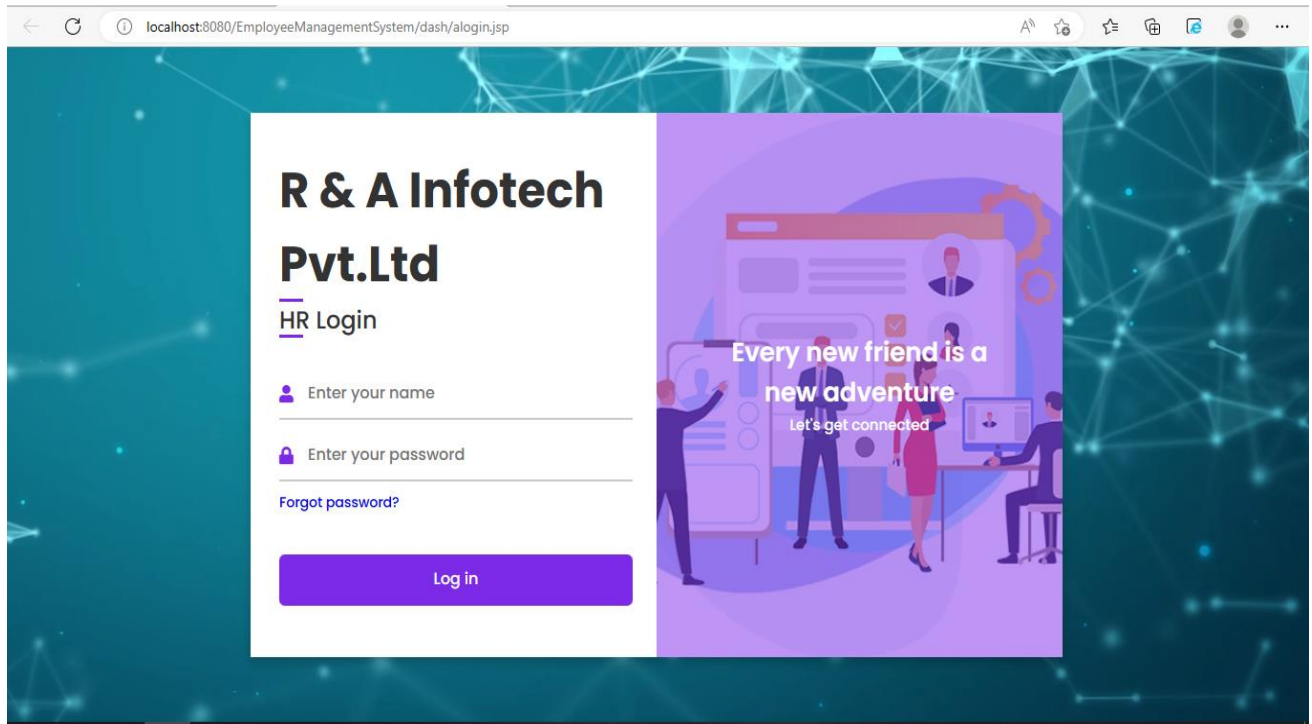
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<input type="checkbox"/>	7	FROMD	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Login Details

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	username	varchar(45)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	2	password	varchar(45)	utf8mb4_general_ci		Yes	NULL			Change Drop More

4.3)User Interface and Design

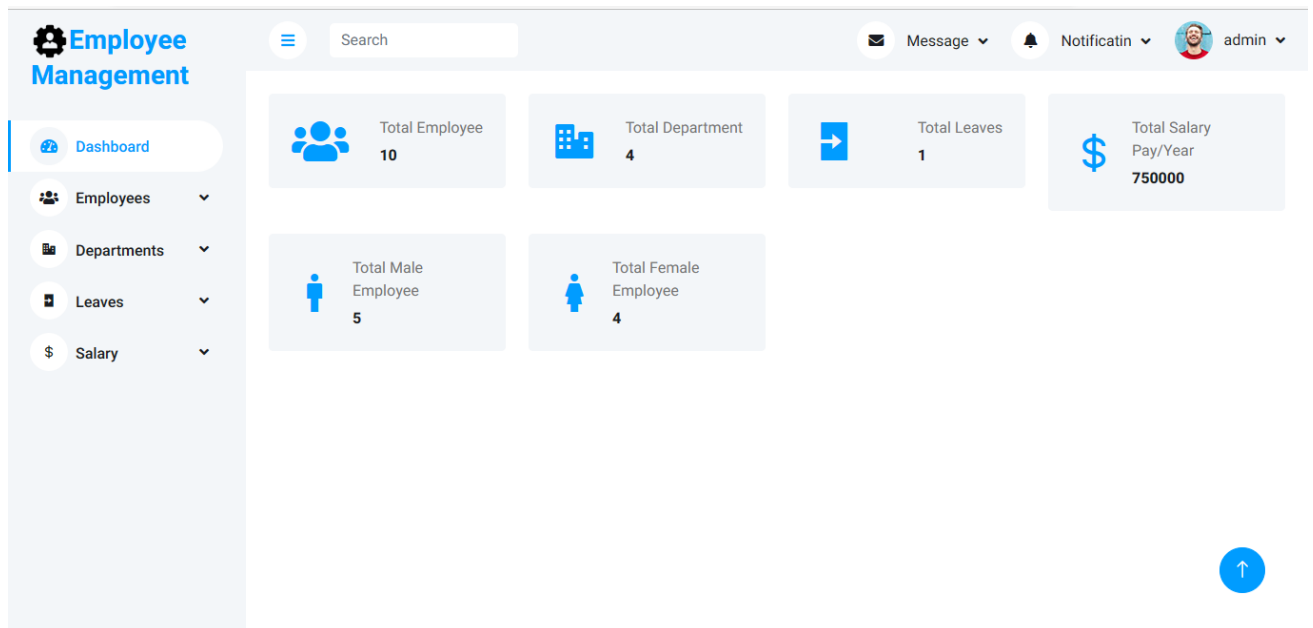
- Login page:This Is login page



When Login Successful



Dashboard



Register Employee

The registration form is titled 'Basic Form' and is used to add new employees to the system. It includes a sidebar with navigation links for Dashboard, Employees, Departments, Leaves, and Salary. The main content area contains the following fields:

- Employee ID
- Employee Name
- Email
- Phone Number
- Address
- Addhar card No.

Each field is represented by a text input box. The form is part of the Employee Management application, as indicated by the sidebar and the search bar at the top.

Role

Jr.Developer

Gender

Male

D.O.B

dd-mm-yyyy

Add C.V

Choose File No file chosen

Add

Recent Salse

Employee in Design Department

Dashboard

Employees

Departments

Design

Development

HR

tester

recent Salse

Employee id

Name

Email

Phone No.

Address

Addhar No.

PAN No.

A/C No.

Department

Role

Ger

103

intra

vinay88542@gmai.com

7986532

nerul

632

23ijk

8963

Design

Designer

Fen

105

tester

tester@t.com

123456789

panvel

1234565

AJFJ556

56520201

Design

Designer

Mal

Employee in Development Department

Recent Salse

Show All

<input type="checkbox"/>	Employee id	Name	Email	Phone No.	Address	Addhar No.	PAN No.	A/C No.	Department	Role
<input type="checkbox"/>	14	rahul	rt712166@gmail.com	7738315897	mumbai	80243399258	hskf2443	2342783294	Development	Project Mana
<input type="checkbox"/>	106	test	t@t.com	123456789	panvel	12345	AS1234	442145	Development	Jr.Dev
<input type="checkbox"/>	107	test	a@a.a	123456789	panvel	1234565	AS1234	5632565	Development	Sr.Dev
<input type="checkbox"/>	108	test	a@a.a	123456789	panvel	1234565	AS1234	5632565	Development	Sr.Dev

Employee in HR Department

Recent Salse


Show All


<input type="checkbox"/>	Employee id	Name	Email	Phone No.	Address	Addhar No.	PAN No.	A/C No.	Department	Role
<input type="checkbox"/>	101	abc11	vinay@gmai.com	4531202	Panvel	63263263	hgf433	8526326	HR	3
<input type="checkbox"/>	102	admin	vinay@gmai.com	117	Panvel	32230	230hgh	6320	HR	3
<input type="checkbox"/>	104	Aniket17	yghnbvinay@gmai.com	4120	Panvel	623	25230	86523	HR	Sr.Tester
<input type="checkbox"/>	111	abcd	aa@a.a	8568956	vashi	784568456856	ASD4555	858754	HR	Jr.Develo


Employee in Testing Departmane


<input type="checkbox"/>	Employee id	Name	Email	Phone No.	Address	Addhar No.	PAN No.	A/C No.	Department	Role
<input type="checkbox"/>	2342434	manoj	manoj432@gmail.com	2355523552	bandra	42423424	AS1234324	4234234251	Testing	HR Assista


Apply Leaves


 **Employee Management**


 Dashboard

 Employees ▼

 Departments ▼

 **Leaves ▼**

 Salary ▼



Basic Form

Leave ID

Employee ID


Employee Name





Leave Type

Privilege Leave ▼


Leave Reason

To



Recent Salse							Show All
<input type="checkbox"/>	Salary id	Employee id	Name	Department	Role	Total Salary(in ₹)	
<input type="checkbox"/>	101	104	Aniket17	HR	Jr.Developer	200000	 
<input type="checkbox"/>	102	108	abc	Development	Jr.Developer	550000	 

Add Salary

Employee Management

Dashboard

Employees

Departments

Leaves

Salary

Search

Basic Form

Salary ID

Employee ID

Employee Name

Department

HR



Role

Jr.Developer

Salary Yearly


Recent Salse

Show All

<input type="checkbox"/>	Leave id	Employee id	Name	Leave type	Reasone	To	From		
<input type="checkbox"/>	112	108	abc	Sick Leave	full body test and rest	2023-02-10	2023-02-11		


Employee Management

 Dashboard


 Employees ^

Register Employee






























Update Employee



 Departments v

 Leaves v

 Salary v

Information of Employee

		USID	UNAME	EMAIL	PNO	ADDR	ANO	PAN	AC	dep	RoI	gender	dob	cv
<input type="checkbox"/>	 Edit  Copy  Delete	14	rahul	rt712166@gmail.com	7738315897	mumbai	80243399258	hskf2443	2342783294	Development	Project Manager	Female	2024-10-25	file (27).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	101	abc11	vinay@gmail.com	4531202	Panvel	63263263	hg433	8526326	HR	3	Male	2023-02-18	file (26).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	102	admin	vinay@gmail.com	117	Panvel	32230	230hgh	6320	HR	3	1	2023-02-11	file (27).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	103	intra	vinay88542@gmail.com	7986532	nerul	632	23ijk	8963	Design	Designer	Female	2023-02-21	file (27).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	104	Aniket17	yghnbvinay@gmail.com	4120	Panvel	623	25230	86523	HR	Sr.Tester	Female	2023-02-22	file (26).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	105	tester	tester@t.com	123456789	panvel	1234565	AJFJ556	56520201	Design	Designer	Male	2023-02-15	file (27).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	106	test	t@t.com	123456789	panvel	12345	AS1234	442145	Development	Jr.Developer	Male	2023-02-17	file (27).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	107	test	a@a.a	123456789	panvel	1234565	AS1234	5632565	Development	Sr.Development	Male	2023-02-18	file (26).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	108	test	a@a.a	123456789	panvel	1234565	AS1234	5632565	Development	Sr.Development	Male	2023-02-18	file (26).pdf
<input type="checkbox"/>	 Edit  Copy  Delete	111	abcd	aa@a.a	8568956	vashi	784568456856	ASD4555	858754	HR	Jr.Developer	Female	2023-02-10	file (27).pdf

		SID	USID	UNAME	DEP	ROLE	SALARY
<input type="checkbox"/>	 Edit  Copy  Delete	101	104	Aniket17	HR	Jr.Developer	200000
<input type="checkbox"/>	 Edit  Copy  Delete	102	108	abc	Development	Jr.Developer	550000

←T→

LID

USID

UNAME

TYPE

RES

TOD

FROMD

Edit

Copy

Delete

112

108

abc

Sick Leave

full body test and rest

2023-02-10

2023-02-11

↑

Check all

With selected:

Edit

Copy

Delete

Export

Edit and Download CV

Addhar No.	PAN No.	A/C No.	Department	Role	Gender	D.O.B	CV			
80243399258	hskf2443	2342783294	Development	Project Manager	Female	2024-10-25	<div><div>Download CV (1.2 MB)</div><div>Building No: 1117</div><div>Building Date: 2023-09-16</div><div>Customer Name: JAGADITH</div><div>Pincode: 400</div><div>Shop: 401</div><div>Phone Number: 98883334</div><div>Contractor Number: 101</div><div>Vehicle Weight: 1</div><div>Vehicle No: 1116</div><div>Vehicle For Bus: 0</div></div>	<div>Download</div>	<div>Edit</div>	<div>Delete</div>
63263263	hgf433	8526326	HR	3	Male	2023-02-18	<div><div>Download CV (1.2 MB)</div><div>Building No: 1117</div><div>Building Date: 2023-09-16</div><div>Customer Name: JAGADITH</div><div>Pincode: 400</div><div>Shop: 401</div><div>Phone Number: 98883334</div><div>Contractor Number: 101</div><div>Vehicle Weight: 1</div><div>Vehicle No: 1116</div><div>Vehicle For Bus: 0</div></div>	<div>Download</div>	<div>Edit</div>	<div>Delete</div>
							<div><div>Download CV (1.2 MB)</div></div>			<div>↑</div>

Logout

Message

Notificatin

admin

My Profile

Settings

Log Out

4.4)Security Issues

Most Common Website Security Issues

1.SQL INJECTIONS

SQL injection is a type of web application security vulnerability in which an attacker attempts to use application code to access or corrupt database content. If successful, this allows the attacker to create, read, update, alter, or delete data stored in the back-end database. SQL injection is one of the most prevalent types of web application security vulnerabilities.

2. CROSS SITE SCRIPTING (XSS)

Cross-site scripting (XSS) targets an application's users by injecting code, usually a client-side script such as JavaScript, into a web application's output. The concept of XSS is to manipulate client-side scripts of a web application to execute in the manner desired by the attacker. XSS allows attackers to execute scripts in the victim's browser which can hijack user sessions, deface websites or redirect the user to malicious sites.

3.SECURITY MISCONFIGURATION

Security mis-configuration encompasses several types of vulnerabilities all centered on a lack of maintenance or a lack of attention to the web application configuration. A secure configuration must be defined and deployed for the application, frameworks, application server, web server, database server and platform. Security misconfiguration gives

hackers access to private data or features and can result in a complete system compromise.

4.BROKEN AUTHENTICATION & SESSION MANAGEMENT

Broken authentication and session management encompass several security issues, all of them having to do with maintaining the identity of a user. If authentication credentials and session identifiers are not protected at all times, an attacker can hijack an active session and assume the identity of a user.

4.INSECURE DIRECT OBJECT REFERENCES

Insecure direct object reference is when a web application exposes a reference to an internal implementation object. Internal implementation objects include files, database records, directories and database keys. When an application exposes a reference to one of these objects in a URL, hackers can manipulate it to gain access to a user's personal data.

5.CROSS-SITE REQUEST FORGERY (CSRF)

Cross-Site Request Forgery (CSRF) is a malicious attack where a user is tricked into performing an action he or she didn't intend to do. A third-party website will send a request to a web application that a user is already authenticated against (e.g., their bank). The attacker can then access functionality via the victim's already authenticated browser. Targets include web applications like social media, in browser email clients, online banking, and web interfaces for network devices.

Don't get caught with your guard down. Practice safe website security measures and always be ready to protect yourself, and your company's future, from an attack that you might never recover from. The best way to tell if your website or server is vulnerable is to conduct regular security audits.

6.FAILURE TO RESTRICT URL ACCESS

Simply put, Failure to Restrict URL Access occurs when an error in access-control settings results in users being able to access pages that are meant to be restricted or hidden. This presents a security concern as these pages frequently are less protected than pages that are meant for public access, and unauthorized users are able to reach the pages anonymously. In many cases, the only protection used for hidden or restricted pages is not linking to the pages or not publicly showing links to them.

4.5)Test Cases

#	Description	Priority	Steps to test	Expected result
1	Validate New Employee type addition	High	Add relevant data to input fields and Submit	Alert “Data has been successfully submitted”
2	Validate New Employee type addition	High	Submit form by keeping at least one required field empty	Show tooltip “Filed cannot be empty”
3	Validate New Employee type addition	High	Submit numeric value fields with non-numeric values	Show tooltip “Please enter a valid number”
4	Validate New Employee type addition	High	Submit numeric value fields with negative numbers	Show tooltip “Negative values are not valid”
5	Validate employee profile creation	Moderate	Enter invalid NIC	Show tooltip “Invalid Input”
6	Validate employee profile creation	Moderate	Enter invalid email address	Show tooltip “Invalid Input”
7	Validate employee profile creation	High	Submit form by entering email address that already exist	Show tooltip “Email address already exist”
8	Validate employee profile creation	Moderate	Add unsupported format as a profile picture	Show tooltip “Please select a valid image format”

Chapter 5

System Coding, Implementation and Testing

5.1) Coding Details

5.2) Coding Efficiency

Code:

Login.jsp:

```
<!DOCTYPE html>
<!-- Created by CodingLab | www.youtube.com/c/CodingLabYT-->
<html lang="en" dir="ltr">
<head>
<meta charset="UTF-8">
<!--<title> Login and Registration Form in HTML & CSS | CodingLab </title-->
<link rel="stylesheet" href="css1/login.css">
<!-- Fontawesome CDN Link -->
<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome/5.15.3/css/all.min.css">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>

<video autoplay muted loop id="myVideo">
<source src="video.mp4" type="video/mp4">
</video>

<div class="container">
<input type="checkbox" id="flip">
<div class="cover">
<div class="front">

<div class="text">
<span class="text-1">Every new friend is a <br> new adventure</span>
```

```
<span class="text-2">Let's get connected</span>
</div>
</div>
<div class="back">

<div class="text">
<span class="text-1">Complete miles of journey <br> with one step</span>
<span class="text-2">Let's get started</span>
</div>
</div>
</div>
<div class="forms">
<div class="form-content">
<div class="login-form">
<div class="title"><h1>R & A Infotech Pvt.Ltd</h1></div>
<div class="title"> HR Login</div>
<form action="advalid.jsp">
<div class="input-boxes">
<div class="input-box">
<i class="fas fa-user"></i>
<input type="text" placeholder="Enter your name" name="a" required>
</div>
<div class="input-box">
<i class="fas fa-lock"></i>
<input type="password" placeholder="Enter your password" name="b" required>
</div>
<div class="text"><a href="#">Forgot password?</a></div>
<div class="button input-box">
<input type="submit" value="Log in">
</div>
</div>
</div>
</form>
</div>
</div>
</div>
</div>
</div>
</body>
</html>
```

Dashboard.jsp:

Code:

```
<div class="content">
<!-- Navbar Start -->
<nav class="navbar navbar-expand bg-light navbar-light sticky-top px-4 py-0">
<a href="index.html" class="navbar-brand d-flex d-lg-none me-4">
<h2 class="text-primary mb-0"><i class="fa fa-hashtag"></i></h2>
</a>
<a href="#" class="sidebar-toggler flex-shrink-0">
<i class="fa fa-bars"></i>
</a>
<form class="d-none d-md-flex ms-4">
<input class="form-control border-0" type="search" placeholder="Search">
</form>
<div class="navbar-nav align-items-center ms-auto">
<div class="nav-item dropdown">
<a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown">
<i class="fa fa-envelope me-lg-2"></i>
<span class="d-none d-lg-inline-flex">Message</span>
</a>
<div class="dropdown-menu dropdown-menu-end bg-light border-0 rounded-0 rounded-
bottom m-0">
<a href="#" class="dropdown-item">
<div class="d-flex align-items-center">

<div class="ms-2">
<h6 class="fw-normal mb-0">Jhon send you a message</h6>
<small>15 minutes ago</small>
</div>
</div>
</div>
<div class="container-fluid pt-4 px-4">
<div class="row g-4">
<div class="col-sm-6 col-xl-3">
<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">
<i class="fa fa-users fa-3x text-primary"></i>
<div class="ms-3">
<p class="mb-2">Total Employee</p>
<h6 class="mb-0"><% try {
Class.forName("com.mysql.jdbc.Driver");
```



```

Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");
Statement stmt = con.createStatement();
ResultSet rs = stmt.executeQuery("select count(*) from regemp");
rs.next();
out.println(rs.getInt(1));
} catch (Exception e) {
out.println(e.getMessage());
}

```

%></h6>

</div>

</div>

</div>

<div class="col-sm-6 col-xl-3">

<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">

<i class='bx bxs-business fa-3x text-primary'></i>

<div class="ms-3">

<p class="mb-2">Total Department</p>

<h6 class="mb-0">4</h6>

</div>

</div>

</div>

<div class="col-sm-6 col-xl-3">

<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">

<i class='bx bxs-log-in fa-3x text-primary'></i>

<div class="ms-3">

<p class="mb-2">Total Leaves</p>

<h6 class="mb-0"><% try {

Class.forName("com.mysql.jdbc.Driver");

Connection con =

DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery("select count(*) from leaves");

rs.next();

out.println(rs.getInt(1));

} catch (Exception e) {

out.println(e.getMessage());

%></h6>

</div>

</div>

</div>

<div class="col-sm-6 col-xl-3">

<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">

<i class='bx bx-dollar fa-3x text-primary'></i>

<div class="ms-3">

<p class="mb-2">Total Salary Pay/Year</p>

<h6 class="mb-0"><% try {

Class.forName("com.mysql.jdbc.Driver");

Connection con =

DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery("SELECT SUM(SALARY) FROM
salary; ");

rs.next();

out.println(rs.getInt(1));

out.println(e.getMessage());

}

%></h6>

</div>

</div>

</div>

<div class="col-sm-6 col-xl-3">

<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">

<i class='bx bx-male fa-3x text-primary'></i>

<div class="ms-3">

<p class="mb-2">Total Male Employee</p>

<h6 class="mb-0"><% try {

Class.forName("com.mysql.jdbc.Driver");

Connection con =

DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");

Statement stmt = con.createStatement();

ResultSet rs = stmt.executeQuery("select count(*) from regemp
where gender='Male'");

rs.next();

out.println(rs.getInt(1));

```
} catch (Exception e) {  
out.println(e.getMessage());  
}
```

```
%></h6>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<div class="col-sm-6 col-xl-3">
```

```
<div class="bg-light rounded d-flex align-items-center justify-content-between p-4">
```

```
<i class='bx bx-female fa-3x text-primary'></i>
```

```
<div class="ms-3">
```

```
<p class="mb-2">Total Female Employee</p>
```

```
<h6 class="mb-0"><% try {
```

```
Class.forName("com.mysql.jdbc.Driver");
```

```
Connection con =
```

```
DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");
```

```
Statement stmt = con.createStatement();
```

```
ResultSet rs = stmt.executeQuery("select count(*) from regemp where gender='female'");
```

```
rs.next();
```

```
out.println(rs.getInt(1));
```

```
} catch (Exception e) {
```

```
out.println(e.getMessage());
```

```
}
```

```
%></h6>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

Emp.jsp:

Code:

```
try {
    Class.forName("com.mysql.jdbc.Driver");
    Connection con =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");

    int id = Integer.parseInt(request.getParameter("id"));
    String a = request.getParameter("a");
    String b = request.getParameter("b");
    String c = request.getParameter("c");
    String d = request.getParameter("d");
    String e = request.getParameter("e");
    String f = request.getParameter("f");
    String g = request.getParameter("g");
    String h = request.getParameter("h");
    String i = request.getParameter("i");
    String j = request.getParameter("j");
    String k = request.getParameter("k");
    String l = request.getParameter("l");
    String sql = "insert into regemp values(?,?,?,?,?,?,?,?,?,?,?)";
    PreparedStatement ps = con.prepareStatement(sql);

    ps.setInt(1, id);
    ps.setString(2, a);
    ps.setString(3, b);
    ps.setString(4, c);
    ps.setString(5, d);
    ps.setString(6, e);
    ps.setString(7, f);
    ps.setString(8, g);
    ps.setString(9, h);
    ps.setString(10, i);
    ps.setString(11, j);
    ps.setString(12, k);
    ps.setString(13, l);

    ps.executeUpdate();
}
```

```

out.println("<script>");
out.println("alert('New Employee Added');");
out.println("location='remp.jsp'");
out.println("</script>");

} catch (Exception e) {
//      out.println("<script type=\"text/javascript\">");
//      out.println("alert('something wrong happens, Try again');");
out.println(e.getMessage());
//      out.println("location='dash/remp.jsp'");
//      out.println("</script>");
}

%>

```

Salary.jsp:

Code:

```

<%
try {
Class.forName("com.mysql.jdbc.Driver");
Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/ems?useSSL=false", "root", "");

int lid = Integer.parseInt(request.getParameter("sid"));
int id = Integer.parseInt(request.getParameter("id"));
String a = request.getParameter("a");
String b = request.getParameter("b");
String c = request.getParameter("c");
String d = request.getParameter("d");
String sql = "insert into salary values(?,?,?,?);";
PreparedStatement ps = con.prepareStatement(sql);
ps.setInt(1, lid);
ps.setInt(2, id);
ps.setString(3, a);
ps.setString(4, b);
ps.setString(5, c);

```

```

ps.setString(6, d);
ps.executeUpdate();
out.println("<script>");
out.println("alert('Salary Added');");
out.println("location='sal.jsp';");
out.println("</script>");

} catch (Exception e) {
//      out.println("<script type=\"text/javascript\">");
//      out.println("alert('something wrong happens, Try again');");
out.println(e.getMessage());
//      out.println("location='dash/remap.jsp';");
//      out.println("</script>");
}

%>

```

Leaves.jsp:

Code:

```

<body>
<div class="container-xxl position-relative bg-white d-flex p-0">
<!-- Spinner Start -->
<div id="spinner" class="show bg-white position-fixed translate-middle w-100 vh-100 top-50
start-50 d-flex align-items-center justify-content-center">
<div class="spinner-border text-primary" style="width: 3rem; height: 3rem;" role="status">
<span class="sr-only">Loading...</span>
</div>
</div>
<!-- Spinner End -->

<!-- Sidebar Start -->
<div class="sidebar pe-4 pb-3">
<nav class="navbar bg-light navbar-light">
<a href="index.html" class="navbar-brand mx-4 mb-3">
<h3 class="text-primary">Employee <br>
Management</h3>

```


<div class="navbar-nav w-100">

<i class="fa fa-tachometer-alt me-2"></i>Dashboard

<div class="nav-item dropdown">

<i class="fa fa-users me-2"></i>Employees

<div class="dropdown-menu bg-transparent border-0">

Register Employee

Update Employee

</div>

</div></div>

<div class="navbar-nav w-100">

<div class="nav-item dropdown">

<i class="bx bxs-business me-2"></i>Departments

<div class="dropdown-menu bg-transparent border-0">

Design

Development

HR

tester

</div>

</div></div>

<div class="navbar-nav w-100">

<div class="nav-item dropdown">

<i class="bx bxs-log-in me-2"></i>Leaves

<div class="dropdown-menu bg-transparent border-0">

Add Leaves

Update Leaves

</div></div></div>

<div class="navbar-nav w-100">

<div class="nav-item dropdown">

<i class="bx bx-dollar me-2"></i>Salary

<div class="dropdown-menu bg-transparent border-0">

```

<a href="sal.jsp" class="dropdown-item">Add Salary</a>
<a href="updsal.jsp" class="dropdown-item">Update Salary</a>
</div></div></div>
</nav>
</div>
</body>

```

Department.jsp

CODE:

```

<body>
<div class="container-xxl position-relative bg-white d-flex p-0">
<!-- Spinner Start -->
<div id="spinner" class="show bg-white position-fixed translate-middle w-100 vh-100 top-50
start-50 d-flex align-items-center justify-content-center">
<div class="spinner-border text-primary" style="width: 3rem; height: 3rem;" role="status">
<span class="sr-only">Loading...</span>
</div>
</div>
<!-- Spinner End -->

<!-- Sidebar Start -->
<div class="sidebar pe-4 pb-3">
<nav class="navbar bg-light navbar-light">
<a href="adashboard.jsp" class="navbar-brand mx-4 mb-3">
<h3 class="text-primary">Employee <br>
Management</h3>
</a>

<div class="navbar-nav w-100">
<a href="adashboard.jsp" class="nav-item nav-link "><i class="fa fa-tachometer-alt me-
2"></i>Dashboard</a>
<div class="nav-item dropdown">
<a href="remp.jsp" class="nav-link dropdown-toggle active" data-bs-toggle="dropdown"><i
class="fa fa-users me-2"></i>Employees</a>
<div class="dropdown-menu bg-transparent border-0">
<a href="remp.jsp" class="dropdown-item">Register Employee</a>
<a href="updemp.jsp" class="dropdown-item">Update Employee</a>

```



```

</div>
</div></div>
<div class="navbar-nav w-100">

<div class="nav-item dropdown">
<a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown"><i class='bx bxs-
business me-2'></i>Departments</a>
<div class="dropdown-menu bg-transparent border-0">
<a href="depdesign.jsp" class="dropdown-item">Design</a>
<a href="depdev.jsp" class="dropdown-item">Development</a>
<a href="dephr.jsp" class="dropdown-item">HR</a>
<a href="deptest.jsp" class="dropdown-item">tester</a>

</div>
</div></div>
<div class="navbar-nav w-100">
<div class="nav-item dropdown">
<a href="leaves.jsp" class="nav-link dropdown-toggle" data-bs-toggle="dropdown"><i
class='bx bxs-log-in me-2'></i>Leaves</a>
<div class="dropdown-menu bg-transparent border-0">
<a href="leaves.jsp" class="dropdown-item">Add Leaves</a>
<a href="updlev.jsp" class="dropdown-item">Update Leaves</a>
</div></div></div>
<div class="navbar-nav w-100">
<div class="nav-item dropdown">
<a href="sal.jsp" class="nav-link dropdown-toggle" data-bs-toggle="dropdown"><i class='bx
bx-dollar me-2'></i>Salary</a>
<div class="dropdown-menu bg-transparent border-0">
<a href="updsal.jsp" class="dropdown-item">Update Salary</a>

</div></div></div>
</nav>
</div>
<!-- Sidebar End -->
<!-- Content Start -->
<div class="content">
<!-- Navbar Start -->
<nav class="navbar navbar-expand bg-light navbar-light sticky-top px-4 py-0">
<a href="adashboard.jsp" class="navbar-brand d-flex d-lg-none me-4">

```

```

<h2 class="text-primary mb-0"><i class="fa fa-hashtag"></i></h2>
</a>
<a href="#" class="sidebar-toggler flex-shrink-0">
<i class='bx bx-menu'></i>
</a>
<form class="d-none d-md-flex ms-4">
<input class="form-control border-0" type="search" placeholder="Search">
</form>
<div class="navbar-nav align-items-center ms-auto">
<div class="nav-item dropdown">
<a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown">
<i class="fa fa-envelope me-lg-2"></i>
<span class="d-none d-lg-inline-flex">Message</span>
</a>
<div class="dropdown-menu dropdown-menu-end bg-light border-0 rounded-0 rounded-
bottom m-0">
<a href="#" class="dropdown-item">
<div class="d-flex align-items-center">

<div class="ms-2">
<h6 class="fw-normal mb-0">Jhon send you a message</h6>
<small>15 minutes ago</small>
</div>
</div>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item">
<div class="d-flex align-items-center">

<div class="ms-2">
<h6 class="fw-normal mb-0">Jhon send you a message</h6>
<small>15 minutes ago</small>
</div>
</div>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item">
<div class="d-flex align-items-center">

<div class="ms-2">
<h6 class="fw-normal mb-0">Jhon send you a message</h6>

```

```
<small>15 minutes ago</small>
</div>
</div>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item text-center">See all message</a>
</div>
</div>
<div class="nav-item dropdown">
<a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown">
<i class="fa fa-bell me-lg-2"></i>
<span class="d-none d-lg-inline-flex">Notificatin</span>
</a>
<div class="dropdown-menu dropdown-menu-end bg-light border-0 rounded-0 rounded-
bottom m-0">
<a href="#" class="dropdown-item">
<h6 class="fw-normal mb-0">Profile updated</h6>
<small>15 minutes ago</small>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item">
<h6 class="fw-normal mb-0">New user added</h6>
<small>15 minutes ago</small>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item">
<h6 class="fw-normal mb-0">Password changed</h6>
<small>15 minutes ago</small>
</a>
<hr class="dropdown-divider">
<a href="#" class="dropdown-item text-center">See all notifications</a>
</div>
</div>
<div class="nav-item dropdown">
<a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown">

<%String name = (String) session.getAttribute("username");%>
<span class="d-none d-lg-inline-flex"><%=name%></span>
</a>
```

```
<div class="dropdown-menu dropdown-menu-end bg-light border-0 rounded-0 rounded-
bottom m-0">
<a href="#" class="dropdown-item">My Profile</a>
<a href="#" class="dropdown-item">Settings</a>
<a href="adlogout.jsp" class="dropdown-item">Log Out</a>
</div>
</div>
</div>
</nav>
</Body>
```

Logout.jsp

Code:

```
html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<%
session.invalidate();
out.println("<script>");
out.println("alert('Logout sucessfully');");
out.println("location='alogin.jsp'");
out.println("</script>");
%>
</body>
</html>
```

CHAPTER 6

Conclusion and Future Work

Conclusion:

In this report, an information system's development has been presented. It was emphasized on the basic steps, consequently taken during the project's development course as a particular attention was turned to the basic operative functions performed upon the data into the database. The report's content comprises the whole task solution, starting from the programming environments have been selected, going through the database, the application's analyze and construction, and finishing with the code-implementation and test-samples, shown separately in Appendix chapters. As a future work, some additional stuff could be implemented and integrated into the application code making it much more reliable and flexible; especially what concerns a pay-roll module, for instance. Apparently, the role of such systems is basic and essential within each company that wants to keep a really good control and record concerning its personnel data, functionality and performance on all levels in its structure. Every organization, in nowadays, has the necessity of managing its staff on a really good level as the staff has definitely the greatest merit of building up a company as such as it is. The wellmanaged staff means giving the appropriate financial award-ness and all kind of benefits as such as they have been deserved. That's why the development of such systems is not just a programming business – a lot of people are ordinarily involved in such projects and one of the basic requirements is the reliability of the system, especially what concerns the storage of data and all of the operations that will be performed upon it.

Future Scope:

This project has many future applications like it can be used in any of the Retail Outlet of Any Type companies. This project was build keeping in mind all the requirements of these outlets and they can be implemented in any such type of organization with very few modification.

Chapter 7

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