A

Summer Internship Report On "Human Resource Management System"

(CE346 – Summer Internship - I)

Prepared by

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Submitted to

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Submitted at





U & P U. PATEL DEPARTMENT OF COMPUTER ENGINEERING Chandubhai S. Patel Institute of Technology (CSPIT) Faculty of Technology & Engineering (FTE), CHARUSAT At: Changa, Dist: Anand, Pin: 388421.

July 2022



CERTIFICATE

This is to certify that the report entitled "Human Resource Management System" is a bonafied work carried out by Jatan Bhimani (20CE007) under the guidance and supervision of Prof. Aayushi Chaudhari/ Mr. Rajesh Joshi for the subject Summer Internship – I (CE346) of 5th Semester of Bachelor of Technology in Computer Engineering at Chandubhai S. Patel Institute of Technology (CSPIT), Faculty of Technology & Engineering (FTE) – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred by the examiner(s).

Under the supervision of,

Prof. Aayushi Chaudhari U & P U. Patel Dept. of Computer Engineering CSPIT, FTE, CHARUSAT, Changa, Gujarat Mr. Rajesh Joshi Founder EightTech Projects

Josh, R.D

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26TH June, 2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Jatan Bhimani**, B.Tech (CE) student of Chandubhai S. Patel Institute of Technology, CHARUSAT, Changa has done a summer internship on "Human Resource Management (HRM)" at EightTech Projects from **16th May 2022 to 26th June 2022**.

We wish him all the best for his bright career.

Thanking you.

For EightTech Projects

JOSW, R.D.

Rajesh Joshi

Founder

ACKNOWLEDGEMENT

With immense pride and dedication, I, the creator of the "Human Resource Management System," would like to deliver the project brief. The development of this project has given me wide opportunity to think, implement and interact with various aspects of management skills as well as the new emerging technologies. Every work that one completes successfully stands on the constant encouragement, good will and support of the people around. I hereby avail this opportunity to express my gratitude to number of people who extended their valuable time, full support and cooperation in developing the project. I express deep sense of gratitude towards our Principal of the Institute, Dr. Y. P. Kosta, our Head of the Department, Dr. Ritesh Patel, my internal guide Prof. Aayushi Chaudhari and my external guide Mr. Rajesh Joshi for the support during the whole session of study and development. It is because of them, that I was prompted to do hard work, adopting new technologies. They altogether provided me favourable environment, and without them it would not have been possible to achieve my goal.

Thanks,

Jatan Bhimani (20CE007)

ABSTRACT

Every organization has their own human resources in order to perform the internal and external human resource activities. Among the total human resource activities, managing the human capital i.e. employees is the significant task to any HR. The main function of HR is to recruit, manage and store the employee data which includes their personal information including their job roles, leave requested, salaries and many more which allows them to face huge workload. In order to support the HR's there are some electronic based HR systems called HRMS- human resource management system which can be used efficiently HR to manage employee data which can be further useful to keep record of their work, leave, salaries and many more. This application is cost effective that allows them to manage their employee's data in a simple manner. This human resource management system will allow the HR's to manage the employee payrolls, employee information systems, employees recruitment, employee retention and also allow employee to build their profile, request leave, view salary slips and many more. This project belongs to a category of web application that can be accessed through with internet connection.

Description of company

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Website URL: http://eighttechprojects.com/

Contact Number: +91 7940393297

Email Address: contact@eighttechprojects.com

About: EightTech Projects is a next-generation IT solutions and digital transformation company in Ahmedabad, offering solutions to various technology platforms and industry domains efficiently. It is a venture that has been established to cater the increasing demand of Spatial technologies like Geographical Information System (GIS), Remote Sensing, Photogrammetry, Surveying, Integration of GIS with MIS System and mobility application along with offering comprehensive IT solutions for the web, mobile, and the cloud. The company promises to provide extremely technical, methodological approach and analysis in order to strive the goals of our clients. We have successfully executed projects of eLMS, GIS analysis for Detailed Engineering for Highways, Land-use Analysis for Urban as built data creation and conversion into GIS and Mobile application for Surveying and location based searching.

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20CE007		INTRODUCTION
	CHAPTER 1: INTR	ODUCTION
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1.1 OVERVIEW OF PROJECT

An HRMS (Human Resource Management System) is a type of HR software that enables the management of several HR functions through the use of information technology. An HRMS aims to improve the productivity and efficiency of the business through the automation of manual and repetitive tasks.

1.2 OBJECTIVE

The aim of the project is to design and implement a web-based human resource management system using PHP (Hypertext Pre-Processor), HTML (Hypertext Markup Language), JavaScript and CSS (Cascading Style Sheet).

The objectives of this project are to:

- i. Design the proposed human resource management system with admin and user modules respectively.
- ii. Test the system by testing each module of the system separately (unit testing) and the integration of all the modules as a whole (integration testing).
- iii. Making alteration and accessing of employee data easier.
- iv. Creating a more user-friendly and reliable system.
- v. Reducing paper work for applying leave applications and generating salary slips.

1.3 SCOPE

The scope of HRM is comparatively wider with enhanced vision so far as the following fields are concerned:-

- 1. Human Resource Planning (HRP)
- 2. Job Evaluation
- 3. Recruitment and Selection
- 4. Organisational Development
- 5. Performance Management Systems

1.4 INTERNSHIP PLAN (WEEK WISE)

	Date	Day	Name of Module
Week 1	16/05/2022	Monday	Introduction of Company and Internship plan
	17/05/2022	Tuesday	Started learning pre-requisite
	18/05/2022	Wednesday	Started with frontend for user module
	19/05/2022	Thursday	Completed login page and landing page for user module
	20/05/2022	Friday	Completed request for leave page
	21/05/2022	Saturday	Completed view leave request page
Week 2	23/05/2022	Monday	Completed leave details and holiday calendar page and started working on profile builder
	24/05/2022	Tuesday	Completed profile builder
	25/06/2022	Wednesday	Completed view salary with side navigation bar
	26/05/2022	Thursday	Completed working of toggle button for side navigation bar
	27/05/2022	Friday	Started frontend for admin module
	28/05/2022	Saturday	Day off
Week 3	30/05/2022	Monday	Completed landing page, Add employee page and sidenav
	31/05/2022	Tuesday	Completed add designation and holiday page
	01/06/2022	Wednesday	Completed leave and salary

			module
	02/06/2022	Thursday	Started learning php
	03/06/2022	Friday	Learned about xampp server and local host
	04/06/2022	Saturday	Had meeting with external guide and made changes accordingly
Week 4	06/06/2022	Monday	Started with backend, made ER diagram
	07/06/2022	Tuesday	Created data tables, learned about storing data
	08/06/2022	Wednesday	Started with backend of user module
	09/06/2022	Thursday	Completed backend of profile builder and request for leave
	10/06/2022	Friday	Started with backend of admin module
	11/06/2022	Saturday	Completed with backend of add employee, designation, holiday
Week 5	13/06/2022	Monday	Learned about fetching data and fetched data for landing pages
	14/06/2022	Tuesday	Fetched data for view leave request, leave details
	15/06/2022	Wednesday	Worked on approve/reject logic for leave requests
	16/06/2022	Thursday	Learned and implemented ajax for salary module
	17/06/2022	Friday	Had meeting with external guide and made changes accordingly
	18/06/2022	Saturday	Day Off

Week 6	19/06/2022	Monday	Completed other actions used in admin module and completed add salary page
	20/06/2022	Tuesday	Learned storing png/jpg and pdf files to store in database and unlink other old files uploaded before for same field
	21/06/2022	Wednesday	Completed Reset Password modal pop up and validations
	22/06/2022	Thursday	Learned FPDF for generating payslips for salary credited
	23/06/2022	Friday	Spotted some bugs and solved them
	24/06/2022	Saturday	Submitted whole project to the company.

20CE007		SYSTEM ANALYSIS
	CHAPTER 2: SYSTE	CM ANALYSIS
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20CE007 SYSTEM ANALYSIS

2.1 STUDY OF EXISTING SYSTEM & ITS LIMITATIONS

Human resource management system is a commonly used system in each and every company. So, I studied various system of it and finally found an android app system named as Attendance app, Payroll & HRMS developed by Workex. It is nice app which have features of attendance, payroll and salaries details of employees. It also have module of leave request and viewing its data of being approved or not.

The system requirements of this apps are:

- 1. Android 5.0 or above
- 2. Works on device which are android supported.
- 3. Minimum RAM should beat least 1GB.
- 4. Requires Google Account to login to this app.

Limitations of Attendance app, Payroll & HRMS are that it is OS dependent, works only on android. As it is an app, requires physical storage in devices. It cannot be used in any devices other than devices containing OS as Android.

2.2 REQUIREMENT OF NEW SYSTEM

2.2.1 Functional Requirements

Functional requirement for HRMS should be:

- 1. Document Management
- 2. Employee On boarding and Administration
- 3. Benefits Management
- 4. Time and Attendance Management
- 5. Employee Engagement
- 6. Applicant Tracking and Recruiting
- 7. Performance Management
- 8. Payroll Management

2.2.2 Non-Functional Requirements

Non-functional Requirements for HRMS should be:

1. Performance requirements

The number of the online user of the HRMS can be estimated as 50 at most. There is no restriction on the number of the users to be added to the database.

20CE007 SYSTEM ANALYSIS

2. Design constraints

2.3 HARDWARE REQUIREMENTS

As discussed above, the existing system requires minimum hardware requirements limitations. So, I decided to resolve some of them and created website as it doesn't require any physical storage in device.

The other minimum hardware requirements are:

- 1. Storage: Not required.
- 2. RAM: 1GB.
- 3. Processor: Intel Pentium 4 or more.
- 4. Display: Responsive website.

2.4 SOFTWARE REQUIREMENTS

Software requirements are:

- 1. Internet connection is required.
- 2. OS independent.
- $3. \quad Software\ required: Chrome, Microsoft\ Edge, Brave\ Browser.$

20CE007		Development Environment
	CHAPTER 3. DEVELOP	MENT ENVIRONMENT
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3.1 Tools Used

3.1.1 Visual Studio Code

Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control. It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDEs, such as Visual Studio IDE.

3.1.2 XAMPP

XAMPP is an abbreviation for cross-platform, Apache, MySQL, PHP and Perl, and it allows you to build WordPress site offline, on a local web server on your computer. This simple and lightweight solution works on Windows, Linux, and Mac – hence the "cross-platform" part.

3.1.3 phpMyAdmin

phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. phpMyAdmin supports a wide range of operations on MySQL and MariaDB. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement.

3.2 Technology Used

3.2.1 HTML

HTML is the standard markup language for Web pages. With HTML you can create your own website.

3.2.2 CSS

CSS is the language we use to style an HTML document. CSS describes how HTML elements should be displayed.

3.2.3 JavaScript

Javascript is used by programmers across the world to create dynamic and interactive web content like applications and browsers. JavaScript is so popular that it's the most used programming language in the world, used as a client-side programming language by 97.0% of all websites.

3.2.4 Bootstrap framework

Bootstrap is a potent front-end framework used to create modern websites and web apps. It's open-source and free to use, yet features numerous HTML and CSS templates for UI interface elements such as buttons and forms. Bootstrap also supports JavaScript extensions.

3.2.5 PHP

PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994. The PHP reference implementation is now produced by The PHP Group.

3.2.6 SQL

SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system.

20CE007		SYSTEM DESIGN
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20CE007 SYSTEM DESIGN

4.1 DATA DICTIONARY

Data dictionary is a dictionary containing meta data of database of Human Resource Management System. So, the below images are data dictionary of HRMS.



Fig 1.1 bank_details

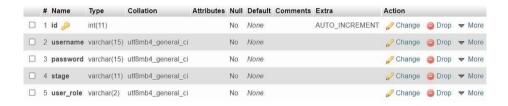


Fig 1.2 credentials



Fig 1.3 designation

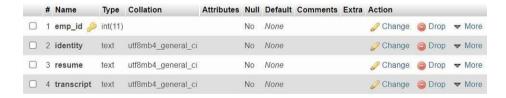


Fig 1.4 documents



Fig 1.5 holiday

20CE007 SYSTEM DESIGN

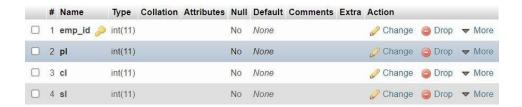


Fig 1.6 master_leave



Fig 1.7 past_experience

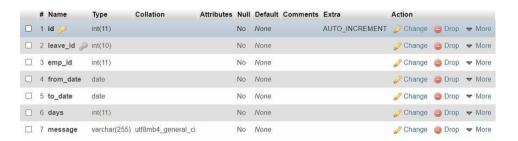


Fig 1.8 requestforleave



Fig 1.9 request_status

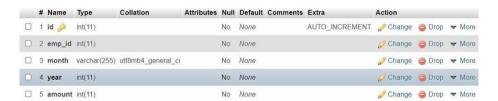


Fig 1.10 request_data

20CE007 SYSTEM DESIGN

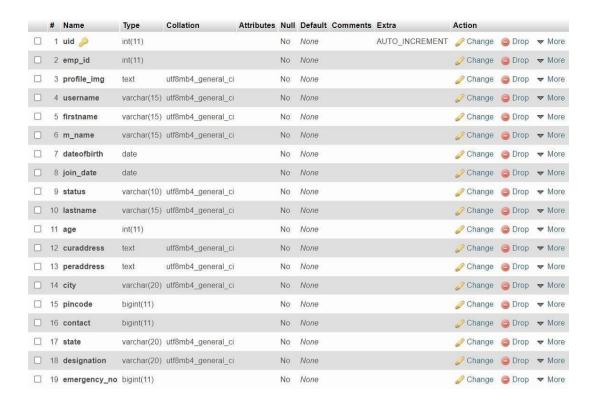


Fig 1.11 userprofile

4.2 ER DIAGRAM

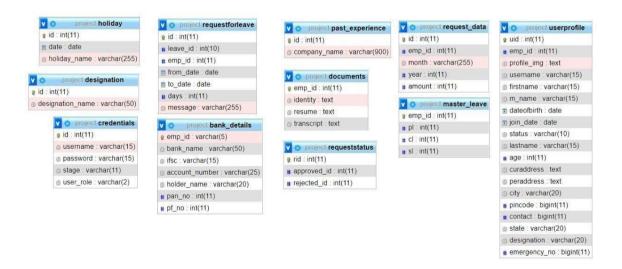


Fig 2. ER Diagram

20CE007		IMPLEMENTATION DETAILS
	CHAPTER 5: IMPLEMENT	ATION SCREENSHOTS
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Figure 3. Login Page

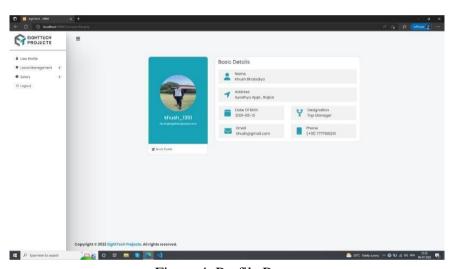


Figure 4. Profile Page

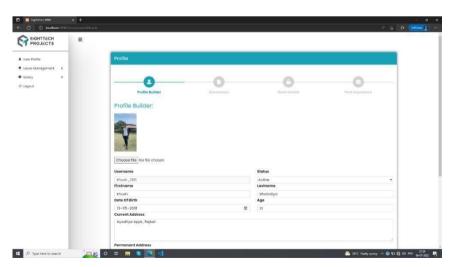
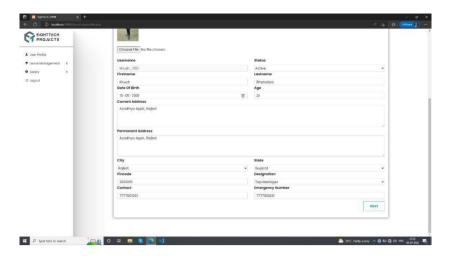


Figure 5. User Profile



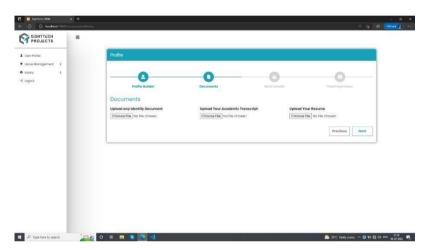


Figure 5.1 Documents

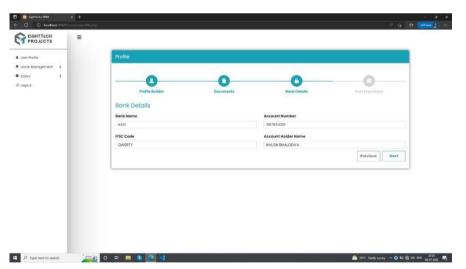


Figure 5.2 Bank Details

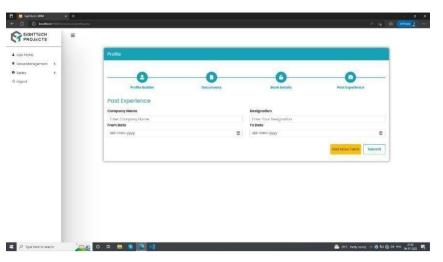


Figure 5.3 Past Experience

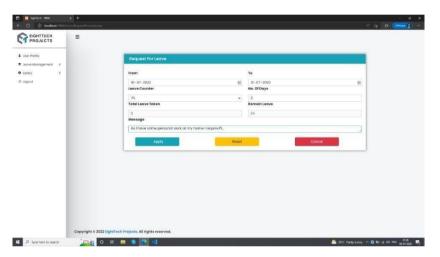


Figure 6. Request for leave

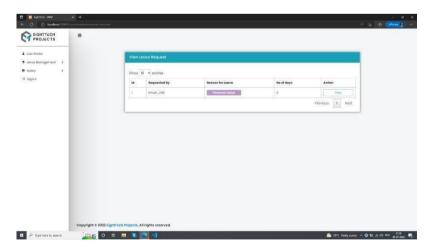


Figure 7. View Leave Request

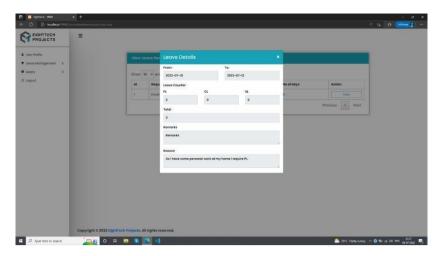


Figure 8. Leave Details

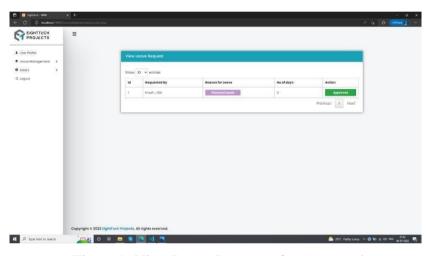


Figure 9. View Leave Request after Approval

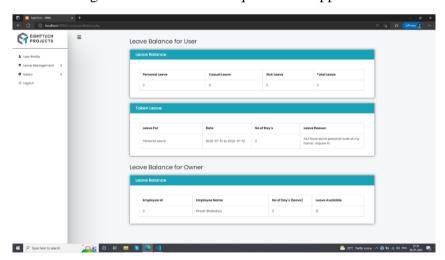


Figure 10. Leave Balance

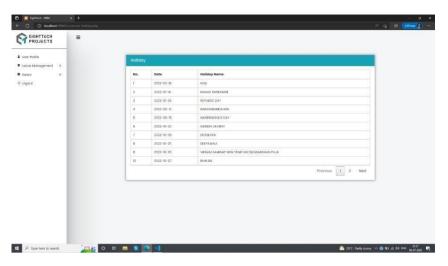


Figure 11. Holiday List

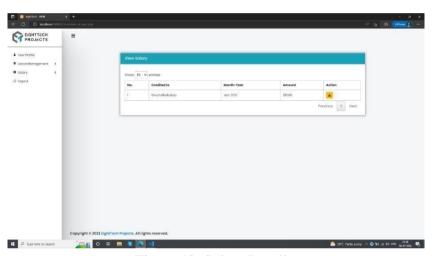


Figure 12. Salary Details



Figure 13. Payslip in pdf form

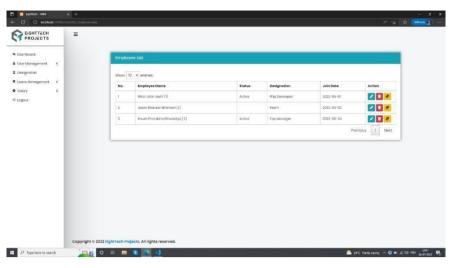


Figure 14. Dashboard (Employee List)

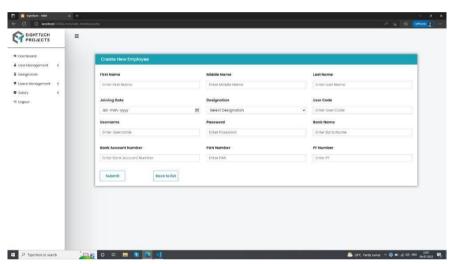


Figure 15. Add Employee

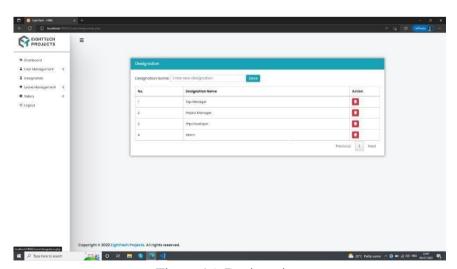


Figure 16. Designation

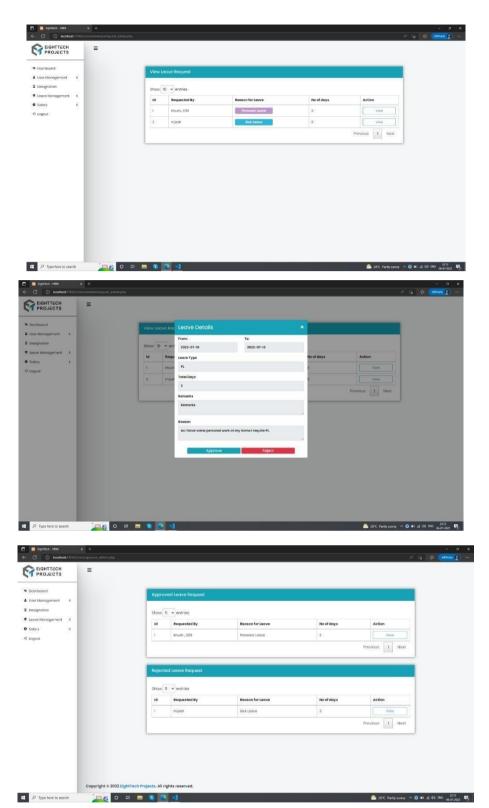


Figure 17. Leave Module for admin

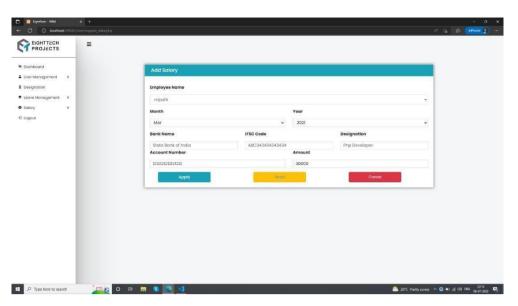


Figure 18. Add Salary

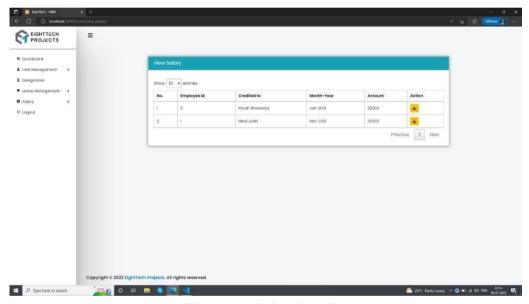


Figure 19. Salary Details

20CE007		TEST CASES	;
	CHAPTER 6	TEST CASES	
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20CE007 TEST CASES

Test case Scenario	Test case Name	Pre – condition	Testing Steps	Testing Data	Expected Result	Post Condition	Status (Pass/Fail)
Verify Login	Valid Username Valid Password	User should be registered	1. Enter username 2. Enter password 3. Click on login	<valid username> <valid password></valid </valid 	Logged in successfully	Show Profile Page	Pass
Verify Login	Valid Username Invalid Password	User should be registered	1. Enter username 2. Enter password 3. Click on login	<valid username> <invalid password></invalid </valid 	Error- Invalid username or password		Fail
Verify Admin Login	Valid Admin Username Valid Password	Admin should be registered	1. Enter username 2. Enter password 3. Click on login	<valid username> <valid password></valid </valid 	Logged in successfully	Show Dashboard (Employee List)	Pass
Verify Admin Login	Valid Admin Username Invalid Password	Admin should be registered	1. Enter username 2. Enter password 3. Click on login	<valid username> <invalid password></invalid </valid 	Error- Invalid username or password		Fail
Add Salary	Select Employee	Employee should be registered	1. Click dropdown 2. Select employee	<selected employee=""></selected>	Salary added successfully	Redirect to invoice page	Pass
Add Salary	Select Employee	Employee should be registered	1. Click dropdown 2. Select employee	<unselected employee=""></unselected>	Error – Please select an employee		Fail

Table 2. Test Cases

20CE007	LIMITATIONS AND FUTURE WORK				
	CHAPTER 7: LIMITATIONS AND FUTURE WORK				
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7.1 LIMITATIONS

Limitations of this project are as follows:

- 1. Internet connectivity is must.
- 2. Database maintenance should be done as required.
- 3. GUI is made in such a way that it can be used on desktop only.

7.2 FUTURE WORK

For the future scope, we can make this project responsive and available it on the devices other than desktop. Other future work that can be implemented are as follows:

- 1. Add project module from which HR can assign projects to employees and employee can view assigned projects through their module.
- 2. Attendance system can be implemented with an extra feature for overtime.
- 3. Auto salary payment can also be implemented on this system.
- 4. This portal can be made available on multi devices.

20CE007		CONCLUSION
		CONCLUCION
	CHAPTER 8: (CONCLUSION
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20CE007 CONCLUSION

We can conclude that the HR information system helps both the HR department and employees to do their jobs. It can help organizations run smoothly with the help of technology. Organization can improve their management system from traditional approach to a modern approach that using a technology base. In addition, organization can take advantage in competition when their organization more advances.

With this project I improved my command on frontend languages as well as I got to know about PHP and JavaScript more. I learnt CRUD operations for images, files and input field text.