

STACKBLEND PRO (HR MANAGEMENT)

A PROJECT REPORT

Submitted to



ASSAM DON BOSCO UNIVERSITY

by

ARNOB CHAKRABORTY

Roll No. DC2022MCA0044

in partial fulfillment for completion of Major Project

of

FOURTH SEMESTER

OF

MASTER OF COMPUTER APPLICATIONS

DEPARTMENT OF COMPUTER APPLICATIONS

SCHOOL OF TECHNOLOGY

ASSAM DON BOSCO UNIVERSITY

AZARA, GUWAHATI 781017,

ASSAM, INDIA.

BATCH (2022-2024)

CERTIFICATE

This is to certify that the Project Report entitled “**STACKBLEND PRO (HR MANAGEMENT)**” submitted by **ARNOB CHAKRABORTY (DC2022MCA0044)** to the Assam Don Bosco University, Guwahati, Assam, in partial fulfillment of the requirement for the Major project of 4^h semester of Master of Computer Applications. It is a bona fide record of the project work carried out by him under my supervision during the semester of January 2024 to June 2024.



(Signature of the External Guide)

Raghuveer Sain

Full Stack and Cloud Development

IBM

Date:

(Signature of the Internal Guide)

Rupesh Mandal

Assistant Professor,

Dept. of Computer Science and Engineering,

School of Technology

Assam Don Bosco University

Date:

CERTIFICATE

This is to certify that the Project Report entitled “**STACKBLEND PRO (HR MANAGEMENT)**” submitted by **ARNOB CHAKRABORTY (DC2022MCA0044)** to the Assam Don Bosco University, Guwahati, Assam, in partial fulfillment of the requirement for the Major project of 4th semester of Master of Computer Applications. It is a bona fide record of the project work carried out by him during the semester of January 2024 to June 2024.

Dr. Gypsy Nandi

Head of the Department

Date:

Prof. Manoranjan Kalita

Director, School of Technology

Date:

EXAMINATION CERTIFICATE

This is to certify that **ARNOB CHAKRABORTY** bearing **DC2022MCA0044** of the Department of Computer Applications has carried out the project work in a manner satisfactory to warrant its acceptance and also defended it successfully.

I wish him all the success in his future endeavors.

Examiners:

1. External Examiner:

2. Internal Examiner:

3. Internal Examiner:

DECLARATION

I hereby declare that the project work entitled “**STACKBLEND PRO (AN HR MANAGEMENT)**” submitted to the Assam Don Bosco University, Guwahati, Assam, in partial fulfillment of the requirement for Major project of 4th semester of Master of Computer Applications. It is an original work done by me under the guidance of name of **Rupesh Mandal** (*Assistant Professor, Dept. of Computer Science and Engineering, School of Technology, Assam Don Bosco University*) and has not been submitted for the award of any degree.

(Signature of the student)

ARNOB CHAKRABORTY

DC2022MCA0044

Department of Computer Applications

School of Technology

Assam Don Bosco University

ACKNOWLEDGEMENT

As the completion of this project gave me much pleasure, I would like to earnestly acknowledge the sincere efforts and valuable time given by my external guide **RAGHUVVEER SAIN**, and my internal guide **RUPESH MANDAL**, for providing me with a good guideline throughout numerous consultations. I would also like to show my gratitude towards my professors who have also spared their valuable time in guiding me like Dr. Pranab Das, Dr. Gypsy Nandi, and Dr. Abhijit Bora, and also to my valuable friends like Naorem Vivek Singh, Amal Satheesh, Gamvika Deka, Ankur Sarma, Divya Bhattacharjee, Rima Lalung Borah, Manas Pratim Gogoi and Arpita Roy who have helped and given me some ideas for this project which in turn also helped me in gaining a lot of knowledge regarding new technologies and I came to know more about so many new things about Web Development, MERN Stack, Data Science, and Machine Learning techniques and I am really thankful to all of them.

LIST OF TABLES

1.	Hardware Requirements	5
2.	Software Requirements	6
3.	COCOMO Model	8

LIST OF FIGURES

1.	Work Breakdown Structure	9
2.	Gantt Chart.....	10
3.	Admin Use-Case Diagram	11
4.	User Use-Case Diagram.....	12
5.	Admin Activity Diagram	13
6.	Manager Activity Diagram	14
7.	Employee Activity Diagram	15
8.	Schema Diagram.....	16
9.	Homepage	19
10.	Admin Dashboard	19
11.	Manager Registration Page	19
12.	Employee Registration Page	19
13.	Manage Manager Account.....	20
14.	Manage Employee Account.....	20
15.	Manager Dashboard.....	21
16.	Add New Employee.....	21
17.	Add Shift Timings	22
18.	Add Employees Shift Schedule	22
19.	Manage Employees Shift Schedule	22
20.	Manage Employees Shift Swap	23
21.	Add Employee Leave Details	23
22.	Edit Employee Leave Type Details	24
23.	Manage Employee Leave Request.....	24
24.	Generate Report on Employee Shift Schedule Details	25
25.	Generate Report on Employee Leave Details.....	25
26.	Employee Dashboard.....	26
27.	Request Employee Shift Swap (Screenshot 1)	26
28.	Request Employee Shift Swap (Screenshot 2)	27
29.	Employee Leave Application (Screenshot 1)	27
30.	Employee Leave Application (Screenshot 2)	28

CONTENTS

Title Page

ACKNOWLEDGEMENTS.....	vii
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix

CHAPTER 1: INTRODUCTION

1.1 Project Title.....	1
1.2 Objective of the Project	2
1.3 Existing Systems.....	3
1.4 Proposed Plan	4

CHAPTER 2: FEASIBILITY STUDY

2.1 Technical Feasibility	5
2.1.1 Hardware used	5
2.1.1 Software used.....	6
Operational Feasibility.....	7
2.1 Economic Feasibility	7
2.1.1 Basic COCOMO Model.....	8
2.1 Schedule Feasibility	9
2.1.1 Work Breakdown Structure	9
2.1.1 Gantt Chart.....	10

CHAPTER 3: DESIGN DESIGN

2.1 Use-Case Diagram	11
2.1.1 Admin Use-Case Diagram	11
2.1.1 User Use-Case Diagram.....	12
2.1 Activity Diagram	13
2.1.1 Admin Activity Diagram	13
2.1.1 User Activity Diagram.....	14
2.1.1.1 Manager Activity Diagram.....	14
2.1.1.2 Employee Activity Diagram.....	15
2.1 Schema Diagram.....	16

CHAPTER 4: IMPLEMENTATION	17-28
CHAPTER 5: CONCLUSIONS & FUTURE WORK	29
REFERENCES.....	30

CHAPTER 1

INTRODUCTION

1.1 PROJECT TITLE:

STACKBLEND PRO (HR MANAGEMENT)

Introducing Stackblend Pro, your All-In-One HR Management Solution

In today's fast-paced business environment, efficient human resource management is crucial for success. That's where Stackblend Pro comes in. Stackblend Pro is a comprehensive HR management software designed to streamline your HR processes, empowering you to focus on what truly matters – your people.

Key Features to Elevate Your HR Operations:

- **Effortless Shift Management:** Simplify the complexities of shift scheduling, ensuring optimal staff allocation and seamless operations.
- **Streamlined Leave Management:** Empower employees to request and track leaves with ease, while maintaining accurate records for compliance and workforce planning.
- **Insightful Report Generation:** Gain valuable insights into your workforce data with comprehensive reports, enabling data-driven decision-making to optimize your HR strategies.

With Stackblend Pro, you'll experience enhanced efficiency, improved accuracy, and a more empowered workforce. Say goodbye to manual processes and hello to a streamlined HR experience.

1.2 OBJECTIVE OF THE PROJECT

The primary objectives of an HR management website, particularly one focusing on shift scheduling, leave management, and report generation, are to:

- **Streamline HR Processes:** Automate and centralize core HR tasks like shift creation, leave requests, and approvals, reducing manual effort and paperwork.
- **Improve Workforce Management:** Optimize staff allocation through efficient shift scheduling, ensuring adequate coverage and minimizing understaffing or overstaffing.
- **Enhance Employee Experience:** Empower employees with self-service tools for leave requests, shift preferences, and access to personal information, fostering autonomy and satisfaction.
- **Ensure Compliance:** Maintain accurate records of work hours, leave balances, and attendance, simplifying compliance with labor laws and regulations.
- **Data-driven decision-making:** Generate insightful reports on workforce trends, attendance patterns, and leave utilization, enabling HR professionals to make informed decisions for staffing, resource allocation, and policy adjustments.
- **Cost Reduction:** Minimize administrative overhead by automating routine tasks and reducing errors associated with manual data entry.
- **Increased Productivity:** Enable HR teams to focus on strategic initiatives and employee engagement by freeing them from time-consuming administrative tasks.
- **Improved Communication:** Facilitate transparent communication between employees and HR regarding schedules, leave, and other work-related matters.

1.3 EXISTING SYSTEMS

- **Spreadsheets:** This is a common but inefficient method for managing shifts and leaves. It's prone to errors, lacks transparency, and is difficult to manage for large teams.
- **Standalone Software:** Some companies might use software dedicated to specific functions like scheduling or timekeeping. These often lack integration and require manual data entry across different tools.
- **Paper-based System:** Manual forms and physical files for leave requests and employee details can be cumbersome, inconvenient, and prone to loss.

1.4 PROPOSED PLAN

To streamline workforce management and create an HR website for managing employee shifts, leaves, and statistics, the following proposed plan can be considered:

- **Shift Scheduling:** Enable managers to create and organize employee shifts quarterly, half-yearly, annually.
- **Leave Management:** Allow managers to manage leaves, and employees to request leaves and receive approvals from their manager.
- **Daily Statistics:** Provide daily statistics on employee attendance and other relevant metrics.
- **Report Generation:** The report generation module will allow for creation of reports on Shift Schedule and Leave Register. These reports will be exportable in PDF formats for easy analysis and sharing.

CHAPTER 2

FEASIBILITY STUDY

The purpose of a feasibility study is to determine whether the software product would be financially, practically, and technologically feasible to develop or not. A feasibility study can be carried out from the following different aspects:

2.1. TECHNICAL FEASIBILITY

Technical feasibility determines both hardware and software requirements along with the required technology to develop the software.

Table 1 and Table 2 show the hardware and software requirements for the development of the software respectively.

2.1.1 HARDWARE REQUIREMENTS

SL NO.	TYPE	REQUIREMENT
1.	DEVICE (HARDWARE)	COMPUTER OR LAPTOP
2.	CPU	INTEL(R) PENTIUM
4.	RAM	MIN 4GB AND MAX 16GB
5.	ROM	32GB OR HIGHER

Table 2.1.1: Hardware Requirements

2.1.2 SOFTWARE REQUIREMENTS

SL NO.	TYPE	REQUIREMENT
1.	FRONTEND	REACT, BOOTSTRAP, HTML, CSS, JAVASCRIPT
2.	BACKEND	NODE.JS, EXPRESS, MONGOOSE
3.	DATABASE	MONGO DB
4.	OPERATING SYSTEM	WINDOWS 11 PRO 64-BIT
5.	APPLICATION SOFTWARE	VS CODE
6.	BROWSER	CHROME, MS EDGE, BRAVE
7.	VERSION CONTROL	GITHUB, GITLAB, GIT

Table 2.1.2: Software Requirements

2.2 OPERATIONAL FEASIBILITY

The proposed HR management website demonstrates robust operational feasibility with a user-friendly interface, and documentation for rapid onboarding, automating shift scheduling, leave management, and report generation to enhance operational efficiency; its architecture ensures seamless integration with existing systems, accessible from any desktop or laptop, empowering employees to manage schedules and request leaves conveniently; built for scalability, it will accommodate future growth, with a comprehensive assessment of resources confirming readiness and strong organizational support; a change management plan ensures smooth transition and user adoption, with potential benefits such as cost savings and enhanced employee satisfaction outweighing development and maintenance costs, ultimately transforming HR operations.

2.3 ECONOMIC FEASIBILITY

The economic feasibility of the proposed HR management website is compelling, with a cost-benefit analysis indicating that while initial costs are significant, they are outweighed by long-term financial benefits and operational efficiencies; automation of HR processes like shift scheduling, leave management, and report generation will lead to significant cost savings by reducing manual effort and errors, freeing up HR staff for strategic initiatives, optimizing resource allocation, and reducing costly understaffing or overstaffing; data-driven insights will enhance workforce planning and employee performance, self-service features will boost employee satisfaction, and enhance turnover.

2.3.1. COCOMO MODEL

The Constructive Cost Model (COCOMO) is a procedural software cost estimation model. The model parameters are derived from fitting a regression formula using data from historical projects.

- The basic COCOMO equations take the form:
- Effort Applied (E) = a(KLOC)^b [person-months]
- Development Time (D) = c(Effort Applied)^d [months]
- People Required (P) = Effort Applied/Development Time [Count] where KLOC is the estimated number of delivered lines (expressed in thousands) of code. The coefficients a, b, c, and d are given in the following table.

Software Project	A	b	c	d
Organic	2.4	1.05	2.5	0.38
Semi-Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.2	2.5	0.32

Table 2.3.1: COCOMO Model

Our project type is **SEMI-DETACHED**, Estimate LOC = 6000 Now the basic COCOMO equation of our project is:

Effort Applied (E) = a (KLOC)^b person/month

$$= 3.0 (6)^{1.12} \text{ person-month}$$

Development Time (D) = c (Effort Applied)^d [months]

$$= 2.5 (22)^{0.35} \text{ [months]}$$

$$= 7.35 \text{ months (approximately)}$$

People Required (P) = Effort Applied/Development Time [count]

$$= 22 / 7.35 \text{ [count]}$$

$$= 2.99 \text{ [count]}$$

The project development time for this project is 4.59 months which will require 1 person. As we have a limited time of approximately 2.5 months to complete this project, we will require more people to develop this project.

2.4 SCHEDULE FEASIBILITY

The project's 6-month duration and conclusion few weeks before deadline suggest that it is realistic in terms of its expected deadline. Completing the job within the time range specified displays efficient task planning, organization, and execution. Following the project schedule ensures that the research and report writing tasks are completed on time, allowing the project objectives to be met within the timeframe specified. The successful completion of the project on time demonstrates that it is schedule-wise viable.

2.4.1 WORK BREAKDOWN STRUCTURE

A Work Breakdown Structure provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control.

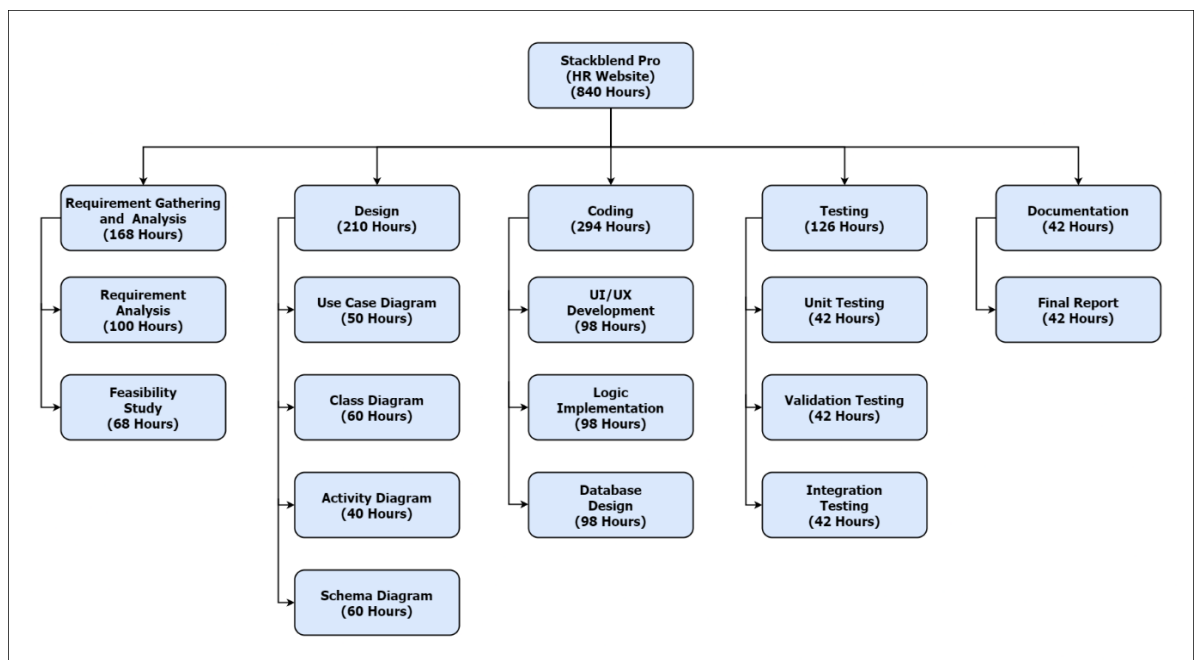


Fig 2.4.1: WORK BREAKDOWN STRUCTURE

2.4.2 GANTT CHART

A Gantt chart is a type of bar chart that illustrates the start and finish dates of the terminal elements and summary elements of a project.

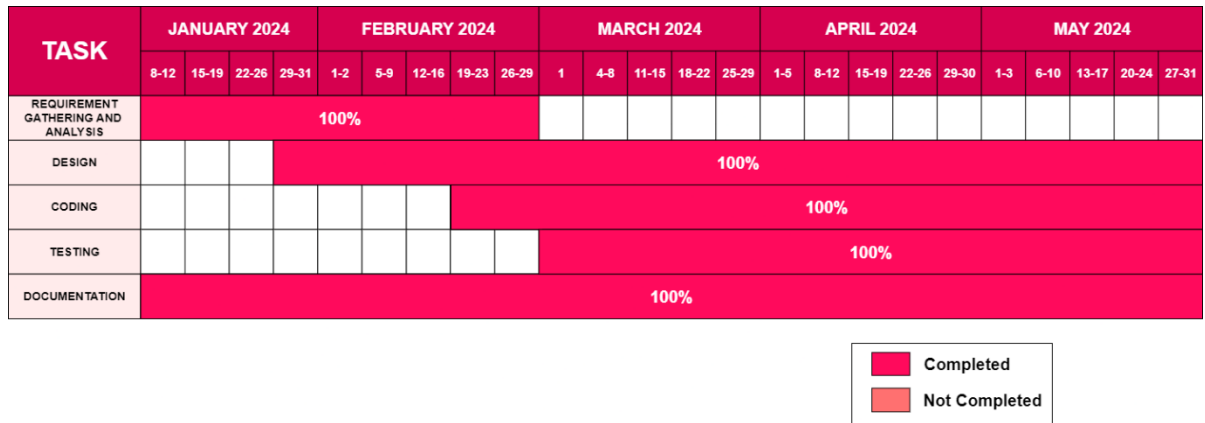


Fig 2.4.2: GANTT CHART

CHAPTER 3

DESIGN DIAGRAMS

Design Diagrams are the graphical representation of the complete project. Through the design diagrams, one can go through the overall work.

In this report, I will be using the following diagrams in order to represent the complete work that will be done in the project:

- Use-Case Diagram
- Activity Diagram
- Schema Diagram

3.1 USE-CASE DIAGRAM

3.1.1 ADMIN USE-CASE DIAGRAM

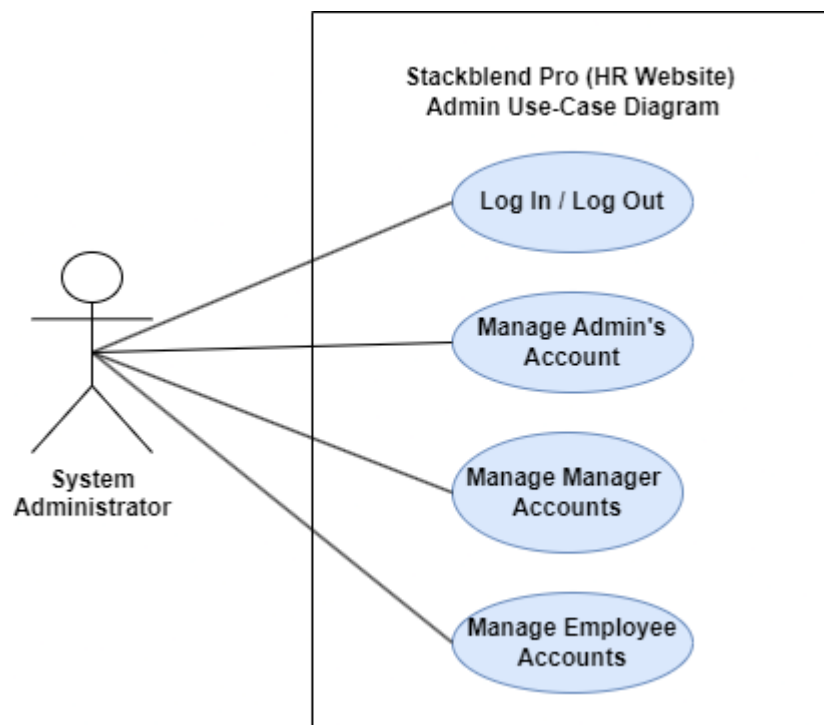


Fig 3.1.1: Admin Use-Case Diagram

3.2.1 USER USE-CASE DIAGRAM

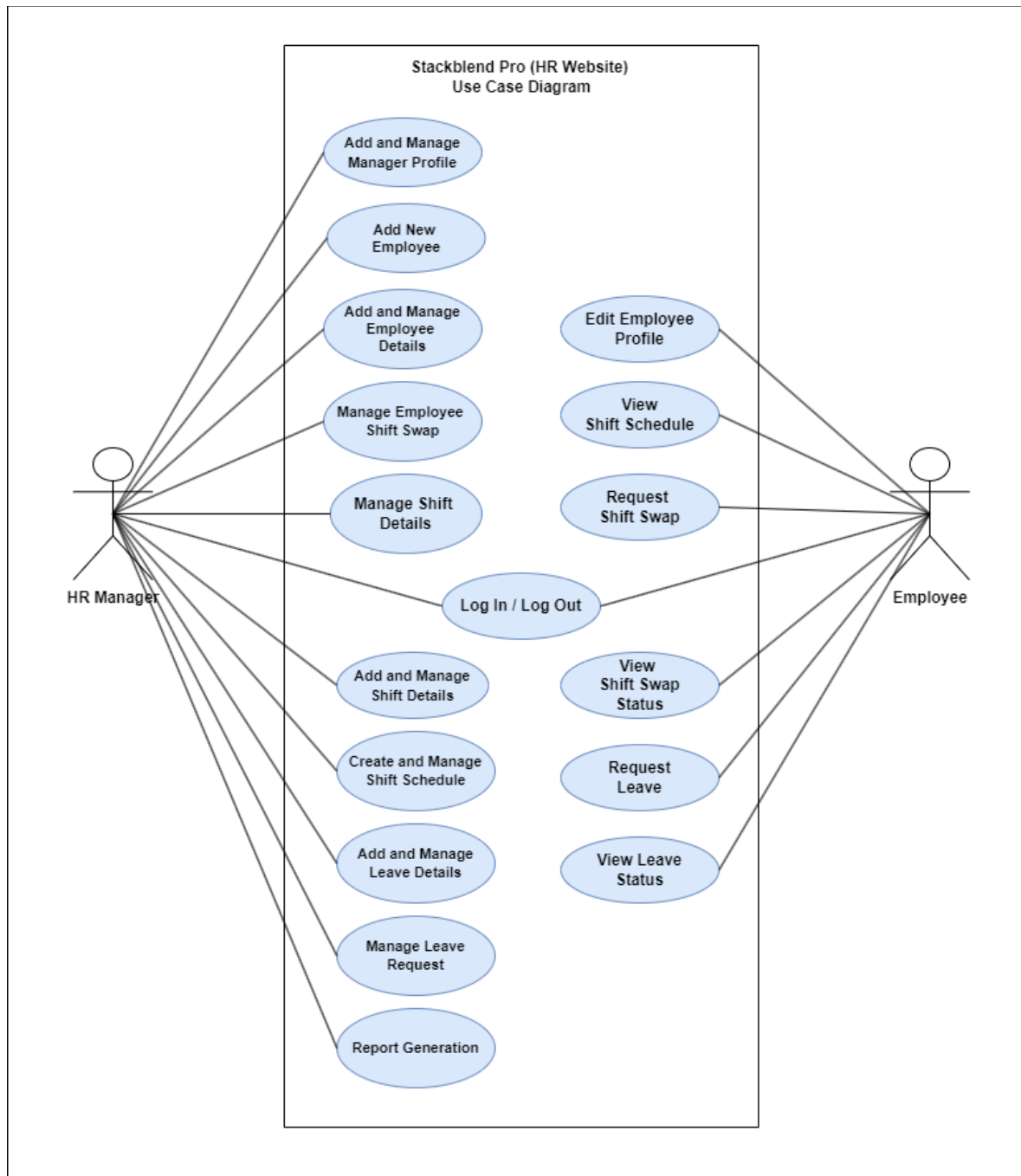


Fig 3.1.2: User Use-Case Diagram

3.2 ACTIVITY DIAGRAM

3.2.1 ADMIN ACTIVITY DIAGRAM

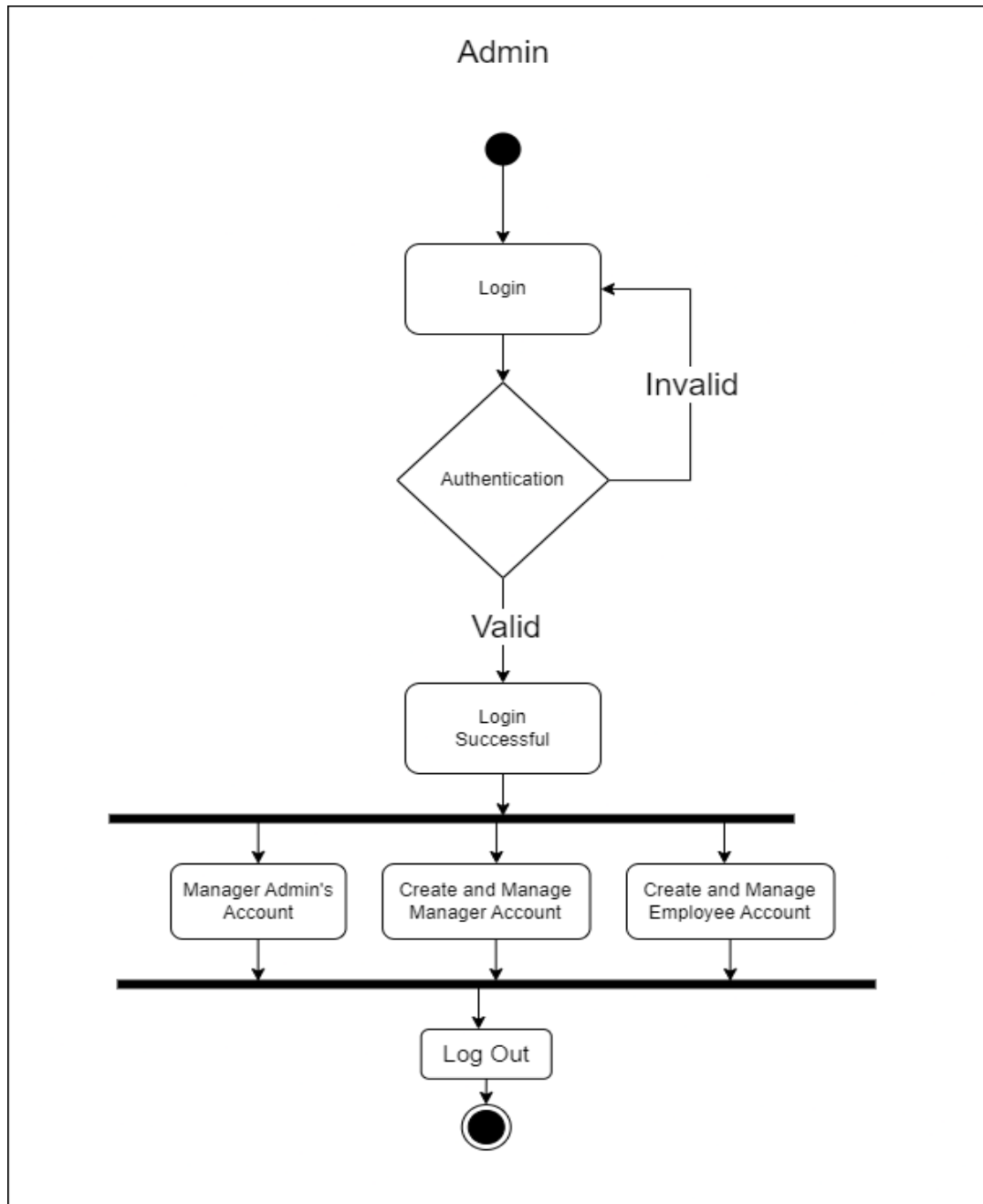


Fig 3.2.1: Admin Activity Diagram

3.2.2 USER ACTIVITY DIAGRAM

3.2.2.1 MANAGER ACTIVITY DIAGRAM

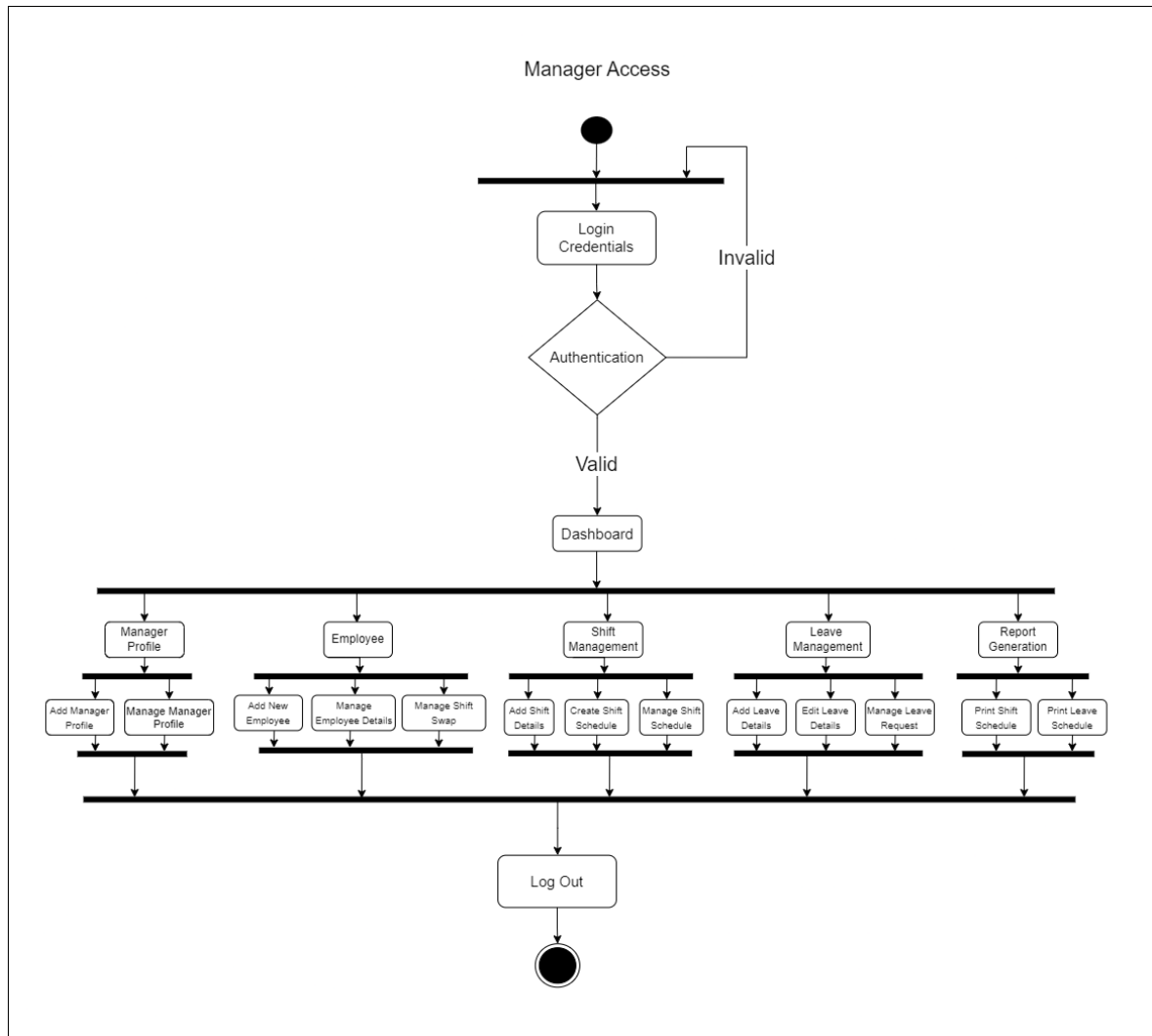


Fig 3.2.2.1: Manager Activity Diagram

3.2.2.2 EMPLOYEE ACTIVITY DIAGRAM

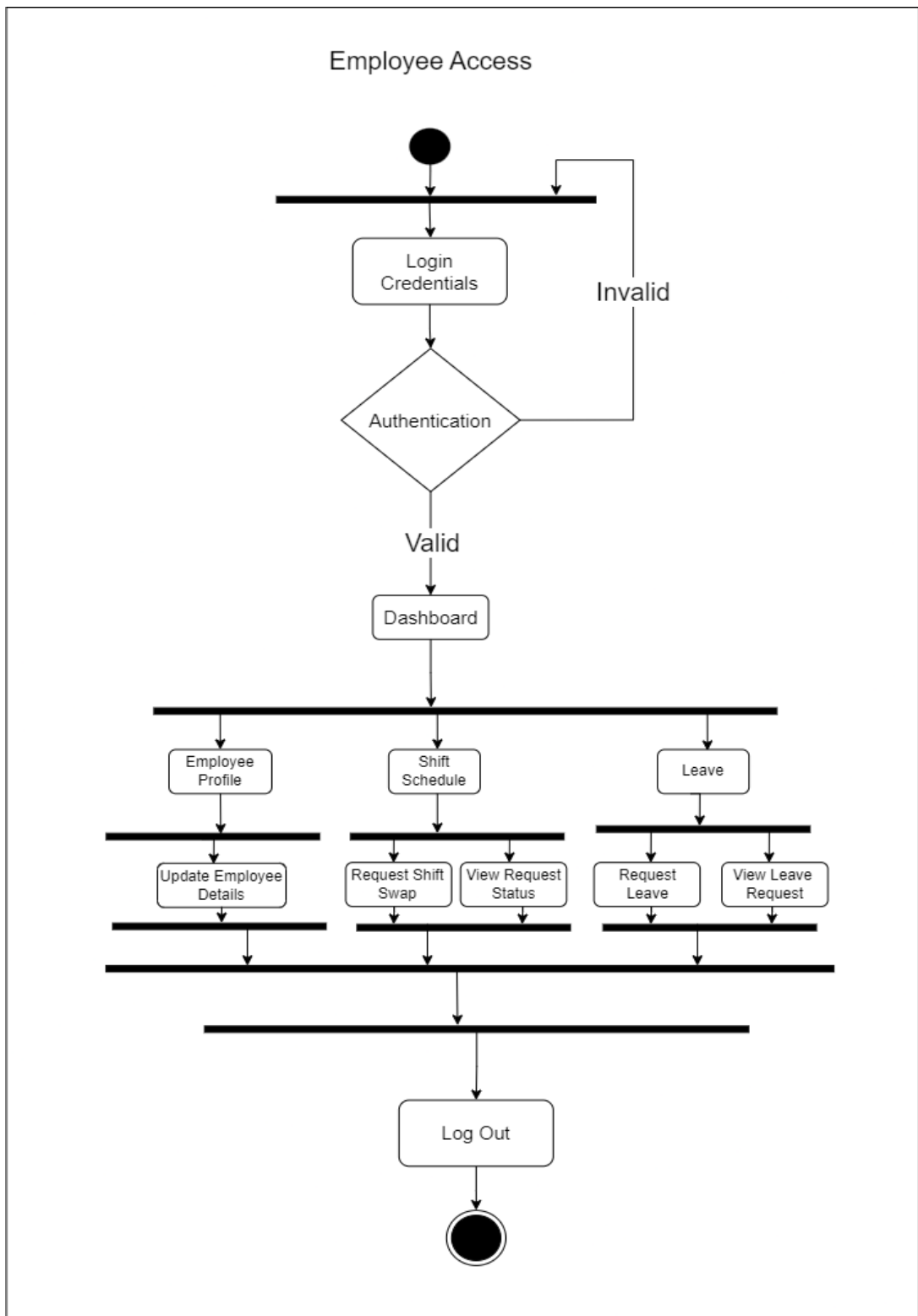


Fig 3.2.2.2: Employee Activity Diagram

3.3 SCHEMA DIAGRAM

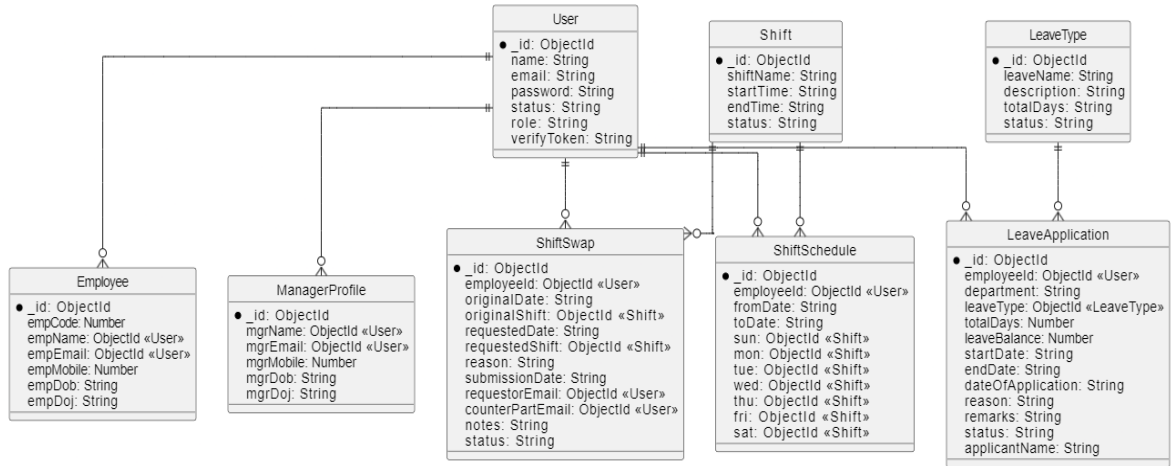


Fig 3.3: Schema Diagram

CHAPTER 4

IMPLEMENTATION

Backend Implementation

The backend implementation includes setting up a Node.js application with necessary configurations and dependencies. Models are defined for Users, Shifts, and Leaves, and routes are created to handle CRUD operations for these models. The implementation ensures secure handling of data and efficient processing of requests.

- **Setting Up the Server:**

Configure the Node.js environment and install necessary dependencies such as Express, Mongoose, and CORS. Set up middleware for logging, error handling, and parsing JSON requests.

- **Database Connection:**

Configure Mongoose to connect to the MongoDB database. Ensure the database schema is defined for Employees, Leave-Application, Leave-Type, Manager-Profile, Users, Shift, Shift-Schedule, and Shift-Swap.

- **Defining Models:**

Create Mongoose models for Employees, Leave-Application, Leave-Type, Manager-Profile, Users, Shift, Shift-Schedule, and Shift-Swap with appropriate fields and data validation.

- **Creating Routes:**

Implement Express routes for handling CRUD operations for shift scheduling, leave management, and report generation. Ensure routes are secured and properly handle data validation and error handling.

- **Authentication and Authorization:**

Implement user authentication using JWT (JSON Web Tokens). Add middleware to protect routes and ensure only authorized users can access certain functionalities.

Frontend Implementation

The front-end implementation involves setting up a React application with a clear project structure. Components are created for different functionalities such as shift scheduling, leave management, and report generation. These components interact with the backend API using Axios to fetch and submit data. The user interface is designed to be intuitive and easy to navigate.

- **Setting Up the Frontend:**

Configure the React environment and install necessary dependencies such as Axios and React Router. Structure the project to organize components, services, and assets effectively.

- **Creating Components:**

Develop React components for shift scheduling, leave management, and report generation. Use functional components and hooks for state management and handling side effects.

- **Integrating with Backend:**

Use Axios to make API requests to the backend for data operations. Ensure proper handling of API responses and errors.

- **Designing User Interface:**

Design the user interface to be user-friendly and responsive. Implement form validation and user feedback mechanisms. Use CSS frameworks and libraries such as Bootstrap for consistent styling. Also use toaster for user feedback.

4.1 Homepage:

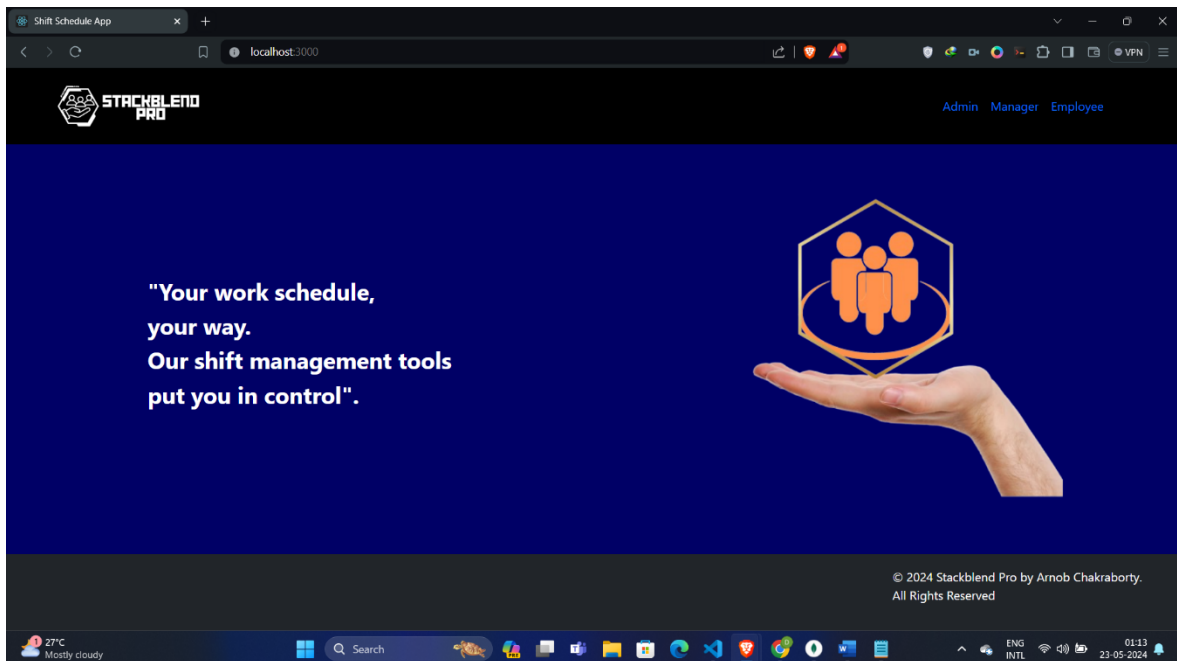


Fig 4.1: Homepage

4.2 Admin Panel:

4.2.1 Admin Dashboard:

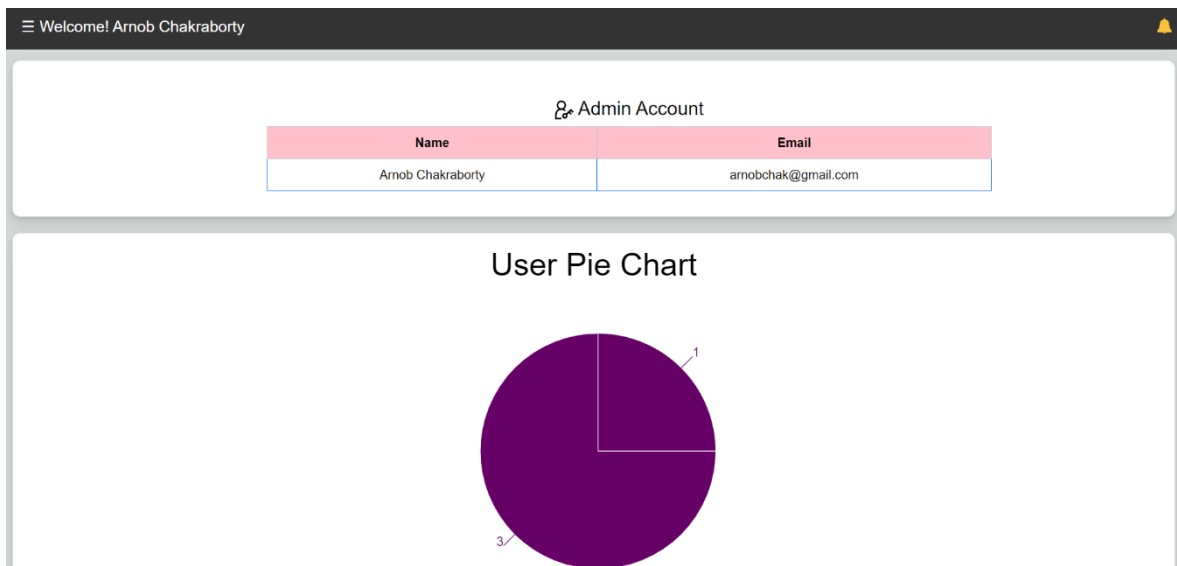
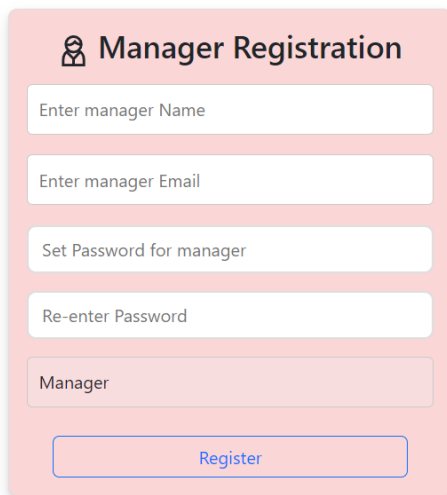


Fig 4.2.1: Admin Dashboard

4.2.2 Manager and Employee Registration Page:



Manager Registration

Enter manager Name

Enter manager Email

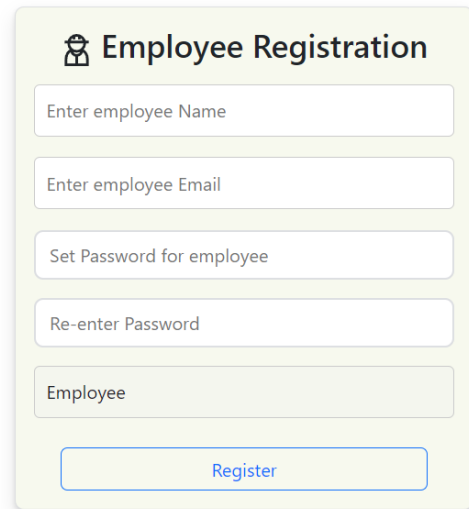
Set Password for manager

Re-enter Password

Manager

Register

Fig 4.2.2.1: Manager Registration Page



Employee Registration

Enter employee Name

Enter employee Email

Set Password for employee

Re-enter Password


Employee

Register

Fig 4.2.2.2: Employee Registration Page

4.2.3 Manage Manager and Employee Account:




Manager Account List

Name	Email	Role	Status	Action
Debajit Chakraborty	debokxj@gmail.com	Manager	Active	 Edit

1

Fig 4.2.3.1: Manage Manager Account

Employee Account List

Emp ID	Name	Email	Role	Status	Action
66440e0a18d0580b1618b73f	Sunanda Chakraborty	pujachak@gmail.com	Employee	Active	 Edit
66457953c929e9cea9b3c408	Pradip Chakraborty	pradipchak@gmail.com	Employee	Active	 Edit
664ccfe16888c92f7aa9c8b2	Rajat Das	rajat@gmail.com	Employee	Active	 Edit

1

Fig 4.2.3.2: Manage Employee Account

4.3 Manager Panel:

4.3.1 Manager Dashboard:

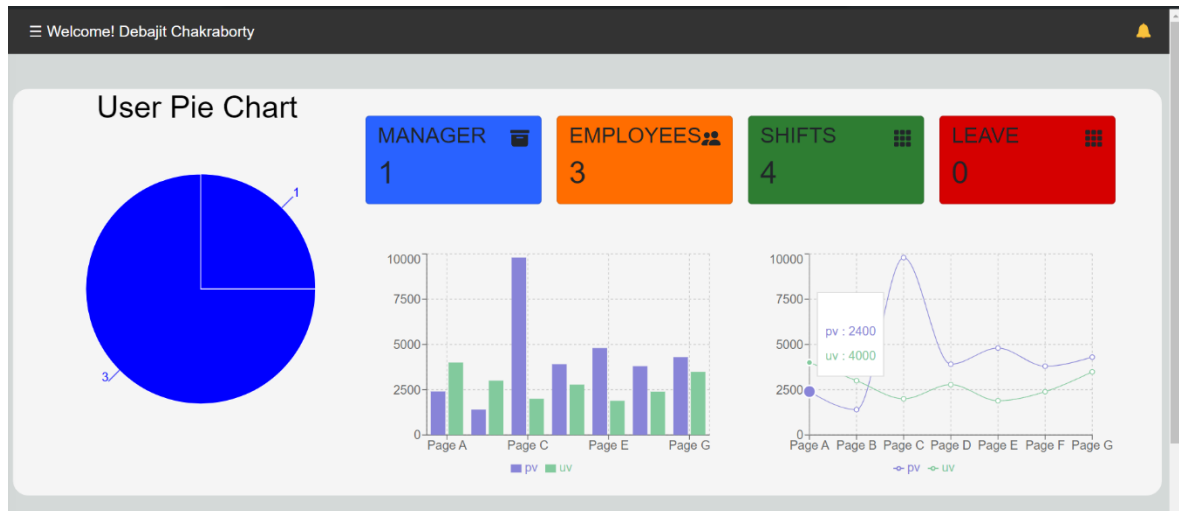


Fig 4.3.1: Manager Dashboard

4.3.2 Add New Employee:

Add New Employee

Sunanda Chakraborty - pujachak@gmail.com

Emp Code:

5

pujachak@gmail.com

Mobile:

9988666522

Date of Birth:

01-01-1996

Date of Joining:

02-05-2024

Submit

Fig 4.3.2: Add New Employee

4.4 Shift Management (Manager):

4.4.1 Add Shift Timings:

Add Shift Details

Select Shift ▼

Start Time
--:--:-- 🕒

End Time
--:--:-- 🕒

Submit

Shift Name	Start Time	End Time	Status	Action
Morning	06:00	14:00	Active	Edit
Evening	14:00	22:00	Active	Edit
Night	22:00	06:00	Active	Edit
General	08:00	17:00	Active	Edit

Fig 4.4.1: Add Shift Timings

4.4.2 Add Employees Shift Schedule:

Shift Schedule Form

Sunanda Chakraborty-pujachak@gmail.com ▼

From Date:
03-05-2024 📅

To Date:
23-05-2024 📅

Select shift for any six days

Mon
Evening ▼

Tue
Evening ▼

Wed
Evening ▼

Thu
Evening ▼

Fri
Evening ▼

Sat
Evening ▼

Sun
Select Shift ▼

Submit

Fig 4.4.2: Add Employees Shift Schedule

4.4.3 Manage Employees Shift Schedule:

Details of Shift Schedule										
Emp ID/Name	From Date	To Date	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Action
66440e0a18d0580b1618b73f Sunanda Chakraborty	01/01/2024	31/03/2024	Morning (06:00-14:00)	Morning (06:00-14:00)	Night (22:00-06:00)	Night (22:00-06:00)	Off	Evening (14:00-22:00)	Evening (14:00-22:00)	Delete

1

Fig 4.4.3: Manage Employees Shift Schedule

4.4.4 Manage Employees Shift Swap:

Shift Swap Request Status								
Requestor Name/Email	Original Date/Shift	Requested Date/Shift	Reason	Submission Date	Counter-Part Name/Email	Remarks	Status	Action
Sunanda Chakraborty pujachak@gmail.com	11/05/2024 Evening [14:00-22:00]	11/05/2024 Morning [06:00-14:00]	shdbfjkdnsfjknkjf	26/04/2024	Pradip Chakraborty pradipchak@gmail.com	skjdfkjdnfkd	Approved	Edit Delete

Fig 4.4.4: Manage Employees Shift Swap

4.5 Leave Management (Manager):

4.5.1 Add Employee Leave Details:

Add Leave Details

Select Leave Name

Description

Write details about leave

No of days allotted

Submit

Fig 4.5.1: Add Employee Leave Details

4.5.2 Edit Employee Leave Type Details:

Leave Type Details

Leave Name	Description	Total Days/Year	Status	Action
Earned Leave	Paid leave earned by employees for working over one year and more. This leave carried forward to the next year or encashed.	30	Active	Edit
Sick Leave	Paid leave for personal illness or medical appointments. This leave can not carried forward and non-encashable.	12	Active	Edit
Casual Leave	Paid leave for short-term personal needs or emergencies.	10	Active	Edit
Maternity Leave	Paid leave for female employees for childbirth and postnatal care.	182	Active	Edit
Paternity Leave	Paid leave for male employees around the time of childbirth.	15	Active	Edit
Public Holidays	National and regional public holidays.	12	Active	Edit
Bereavement Leave	Paid leave for the death of a close family member.	7	Active	Edit

Fig 4.5.2: Edit Employee Leave Type Details

4.5.3 Manage Employee Leave Request:


Leave Register

Emp Name	Department	Leave Type	Leave Alloted	Leave Bal	Leave Applied For		Total Days	Applied On	Reason	Manager Remarks	Status	Action
					From Date	To Date						
Sunanda Chakraborty	IT	Casual Leave	10	8	01/05/2024	02/05/2024	2	22/05/2024	uw		Approved	Edit
Pradip Chakraborty	IT	Casual Leave	10	5	01/05/2024	05/05/2024	5	22/05/2024	uw		Approved	Edit
Sunanda Chakraborty	IT	Casual Leave	10	4	11/05/2024	14/05/2024	4	22/05/2024	uw	djknfkldmifk	Approved	Edit
Pradip Chakraborty	BM	Sick Leave	12	9	11/05/2024	13/05/2024	3	23/05/2024	jhgkjfnasljfn	kjshdlkmsak	Rejected	Edit
Sunanda Chakraborty	IT	Maternity Leave	182	151	01/05/2024	31/05/2024	31	23/05/2024	request for maternity leave...	Accepted	Approved	Edit

Fig 4.5.3: Manage Employee Leave Request

4.6 Report Generation (Manager):

4.6.1 Generate Report on Employee Shift Schedule Details:




Employee Shift Schedule									
Company XYZ									
Date: 23/05/2024									
Emp Name	From Date	To Date	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Sunanda Chakraborty	01/01/2024	31/03/2024	Morning (06:00-14:00)	Morning (06:00-14:00)	Night (22:00-06:00)	Night (22:00-06:00)	Off	Evening (14:00-22:00)	Evening (14:00-22:00)

Print

Fig 4.6.1: Generate Report on Employee Shift Schedule Details

4.6.2 Generate Report on Employee Leave Details:



Employee Leave Register											
Company XYZ											
Date: 23/05/2024											
Emp Name	Department	Leave Type	Leave Allotted	Leave Bal	Leave Applied For		Total Days	Applied On	Reason	Manager Remarks	Status
					From Date	To Date					
Sunanda Chakraborty	IT	Casual Leave	10	8	01/05/2024	02/05/2024	2	22/05/2024	uw		Approved
Pradip Chakraborty	IT	Casual Leave	10	5	01/05/2024	05/05/2024	5	22/05/2024	uw		Approved
Sunanda Chakraborty	IT	Casual Leave	10	4	11/05/2024	14/05/2024	4	22/05/2024	uw	djknfksdmlfk	Approved
Pradip Chakraborty	BM	Sick Leave	12	9	11/05/2024	13/05/2024	3	23/05/2024	jhgkjfnasljfn	kjshdlkmsak	Rejected
Sunanda Chakraborty	IT	Maternity Leave	182	151	01/05/2024	31/05/2024	31	23/05/2024	request for maternity leave...	Accepted	Approved

Print

Fig 4.6.2: Generate Report on Employee Leave Details

4.7 Employee Panel:

4.7.1 Employee Dashboard:

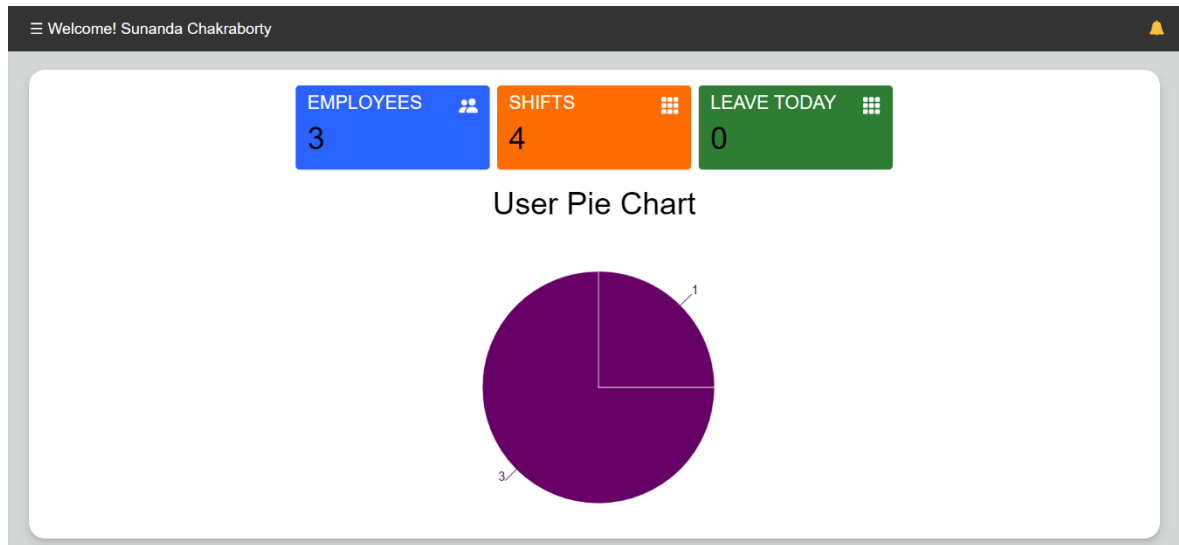


Fig 4.7.1: Employee Dashboard

4.8 Shift Management (Employee):

4.8.1 Request Employee Shift Swap:

The screenshot shows the 'Employee Shift Swap Request Form'. The form has a blue header bar with the title 'Employee Shift Swap Request Form'. Below the header, there is a section for 'Select requestor Name' with a text input field. This is followed by a section titled 'Original Shift Details' in green. This section contains a date input field labeled 'Original Date:' with a placeholder 'dd-mm-yyyy' and a calendar icon, a 'Day' input field, and a 'Select original Shift' dropdown menu. Below this is a section titled 'Requested Shift Details' in red. This section contains a date input field labeled 'Request Date:' with a placeholder 'dd-mm-yyyy', a 'Day' input field, and a 'Select requested Shift' dropdown menu.

Fig 4.8.1.1: Request Employee Shift Swap (Screenshot 1)

<p>Reason for Request:</p> <div>Mandatory</div> <p>Date of Submission:</p> <div>dd-mm-yyyy</div> <div>Select email of requestor</div> <div>Select email of counter-part</div> <p>Notes:</p> <div>Optional</div> <div>Submit</div>		
---	--	--

Fig 4.8.1.2: Request Employee Shift Swap (Screenshot 2)

4.9 Leave Management (Employee):

4.9.1 Employee Leave Application:

Employee Leave Application

Select Employee

Select Department

Select Leave Type

Total Leave Allotted/Year (In Days)

Leave Balance (In Days)

From Date

dd-mm-yyyy

Fig 4.9.1.1: Employee Leave Application (Screenshot 1)



The image shows a web form for an Employee Leave Application. It is contained within a light gray box with a thin blue border on the left. The form has three main sections: 'From Date', 'To Date', and 'Reason'. Each section has a label above its input field. The 'From Date' and 'To Date' fields are text boxes with the placeholder 'dd-mm-yyyy' and a small calendar icon on the right. The 'Reason' field is a larger text area. At the bottom left of the form is a blue 'Submit' button.

From Date

dd-mm-yyyy

To Date

dd-mm-yyyy

Reason

Submit

Fig 4.9.1.2: Employee Leave Application (Screenshot 2)

CHAPTER 5

CONCLUSIONS AND FUTURE WORK

CONCLUSION:

In conclusion, our HR management website, equipped with advanced shift scheduling, seamless leave management, and comprehensive report generation capabilities, serves as an indispensable tool for optimizing workforce operations, ensuring that employee schedules are efficiently managed, leave requests are handled transparently, and critical HR metrics are readily accessible for informed decision-making, ultimately fostering a more organized, productive, and harmonious workplace environment that meets the dynamic needs of modern organizations.

FUTURE WORK:

Future work would be:

- Added new features and modules.
- Improvement of User Interface.
- Responsive website feature.
- Improved Analytics of real-time data.
- Enhanced Security Measures.
- Added feedback feature for more improvements, features, and upgrades.

REFERENCES

1. <https://app.diagrams.net/?src=about> [last accessed on (21/2/24)]
2. <https://www.canva.com/about/> [last accessed on (15/2/24)]
3. <https://www.geeksforgeeks.org/mern-stack/> [last accessed on (20/2/24)]
4. <https://www.w3schools.com/nodejs/> [last accessed on (20/2/24)]
5. https://www.w3schools.com/REACT/react_intro.asp [last accessed on (20/2/24)]
6. https://www.geeksforgeeks.org/express-js-express-json-function/?ref=ml_lbp [last accessed on (20/2/24)]
7. <https://www.w3schools.com/mongodb/> [last accessed on (20/2/24)]
8. https://www.w3schools.com/mongodb/mongodb_mongosh_create_database.php [last accessed on (20/2/24)]
9. <https://mongoosejs.com/docs/> [last accessed on 25/3/24]
10. <https://www.npmjs.com/package/nodemon> [last accessed on 28/3/24]
11. <https://www.emailjs.com/docs/> [last accessed on 3/5/24]
12. <https://react-icons.github.io/react-icons/> [last accessed on 15/5/24]
13. <https://www.npmjs.com/package/nodemailer> [last accessed on 10/5/24]
14. <https://expressjs.com/en/5x/api.html> [last accessed on 28/3/24]
15. <https://react.dev/learn> [last accessed on 28/3/24]
16. <https://react.dev/learn/installation> [last accessed on 28/3/24]
17. <https://www.mongodb.com/docs/manual/> [last accessed on 28/3/24]
18. <https://getbootstrap.com/docs/5.0/getting-started/introduction/> [last accessed on 29/3/24]
19. <https://www.npmjs.com/package/react-router-dom> [last accessed on 28/3/24]
20. <https://www.npmjs.com/package/bcrypt> [last accessed on 25/4/24]
21. <https://www.npmjs.com/package/dotenv> [last accessed on 25/4/24]
22. <https://www.chartjs.org/docs/latest/> [last accessed on 15/5/24]
23. <https://www.npmjs.com/package/react-toastify> [last accessed on 13/5/24]
24. <https://www.npmjs.com/package/react-to-print> [last accessed on 18/5/24]
25. <https://www.npmjs.com/package/axios> [last accessed on 28/4/24]