



Faculty of Computer Applications & Information Technology (FCAIT)

GLS University

Ahmedabad - 380006

Real Estate Management System

Project Report

Submitted as Partial Fulfillment of
Master of Computer Application
Semester-IV

Developed at
PVOT Designs Pvt. Ltd.

Developed by
Mihir Patel (202200719010103)

Under Guidance of
Dr. Prerna Agrawal, FCAIT
Mr. Ronak Mehta, PVOT Designs Pvt. Ltd.

Project Profile

Project Title:	Real Estate Management System			
Description:	The Real Estate Management System (REMS) is a web application focused on efficiently managing real estate operations through its front-end and intuitive admin panel			
Aim:	The real estate management system project aims to streamline property operations and enhance efficiency through digital management solutions.			
Category:	Website			
Tools Used / Required:	<p><u>Development side</u></p> <ul style="list-style-type: none"> ➤ Software: (VS Code, MongoDB Compass, Postman) ✓ Operating System: Windows 11 ✓ Front End: React JS ✓ Middleware: Node JS ✓ Back End: Mongo DB ✓ Framework: Express 			
Developed at:	PVOT Designs, Ahmedabad			
Developed By:	Enroll No.	Name	Institute	Contribution
	202200719010103	Mihir Patel	FCAIT	System architecture design, encompassing database structures and input forms.
Guided By:	Internal at Institute		External at company	
	Name: Dr. Prerna Agrawal Designation: Assistant Professor		Name: Mr. Ronak Mehta Designation: Founder & CEO	

**Faculty of Computer Applications
& Information Technology**



Certificate

This is to certify that

Mihir Patel, 202200719010103

Student of MCA semester IV of

*Faculty of Computer Applications & Information Technology
GLS University*

has successfully completed the full-time project work
entitled

“Real Estate Management System”

developed at

“PVOT Designs”

as a partial fulfilment of the study of

Master of Computer Application

Prerna
(Dr. Prerna Agrawal)

Internal Guide

Devarshi
(Dr. Devarshi Mehta)

Project Coordinator

Harshal
(Dr. Harshal Arolkar)
Head, PG Programme

Savita
(Dr. Savita Gandhi)
Dean

13 April 2024

MCA Programme

GLS Campus, Opp. Law Garden, Ellisbridge, Ahmedabad - 380 006.
Tel. : (079) 2644 7636 • Fax : (079) 2644 5958 • mca@glsuniversity.ac.in • www.glsuniversity.ac.in • www.glsict.org



Project Completion Letter

Date:- 6/4/2024

To,
GLS Institute of Computer Application
GLS University, Netaji Road, Opp. Law Garden,
Ellisbridge, Ahmedabad – 380 006
Gujarat

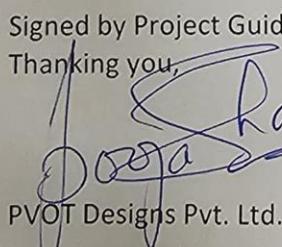
Dear Sir/Ma'am,

This is to certify that **Mr. Mihir Patel** has successfully completed analysis and design of the project on the **Real Estate Management System** application under the company.

This work is original and has not been submitted elsewhere.

Duration – **6/2/2024 to 5/4/2024**

Signed by Project Guide
Thanking you,


Roopa Shah
PVOT Designs Pvt. Ltd.



Acknowledgement

I would like to extend my sincere appreciation to the Department of Computer Applications at **GLS University** for providing me with the necessary foundation and guidance essential for the successful completion of my final year project, the **Real Estate Management System (REMS)**.

Throughout the development of my project, I have received invaluable assistance and support from various individuals, and I would like to take this opportunity to express my heartfelt gratitude to them.

First and foremost, I am immensely grateful to **Dr Prerna Agrawal**, my academic mentor, for her unwavering guidance, mentorship, and support throughout the entire project. Her expertise, encouragement, and insights have played a pivotal role in shaping my understanding and approach towards this project.

I extend my heartfelt thanks to **Mr. Ronak Mehta**, Founder & CEO of PVOT Design, for his invaluable support, mentorship, and continuous encouragement throughout the development of REMS. His leadership and insights have been instrumental in guiding me through various challenges encountered during the project.

I would also like to express my gratitude to the faculties of **FCAIT, and GLS** for their continuous support, valuable suggestions, and constant supervision, which have significantly contributed to the successful completion of the project.

Special appreciation goes to the team at PVOT Design Private Limited for providing me with all the necessary resources, guidance, and encouragement throughout the project duration.

Furthermore, I extend my sincere thanks to my family and friends for their unwavering support, encouragement, and motivation, which served as a constant source of inspiration throughout the development of REMS.

Lastly, I express my gratitude to all those who have directly or indirectly contributed to the successful completion of this project.

Thank you all for your support and encouragement.

Submitted by: Mihir Patel

Introduction of company

Company Name	PVOT Designs
Location	7th floor, 727, Shivalik Shilp, Iskcon Cross Road, Satellite, Ahmedabad, Gujarat 380015
Website	https://pvotdesigns.com/
Contact Details	Mo.: +91 9924 240 250 E-mail: hello@pvotdesigns.com
Services Offered	PVOT Design is a premier tech company that specializes in crafting bespoke websites tailored to each client's specific requirements. With a primary emphasis on frontend technology, we excel in creating visually captivating and functionally superior web interfaces that engage audiences effectively.

Index Page

No.	Title	Page no.
1.	ABSTRACT	1
2.	TIMELINE CHART	2
3.	NEED OF SYSTEM	3
4.	HARDWARE REQUIREMENT	4
5.	SOFTWARE REQUIREMENT	5
6.	FEASIBILITY STUDY	6
7.	SYSTEM ARCHITECTURAL DIAGRAM	7
8.	SOFTWARE REQUIREMNT SPECIFICATIONS	8
9.	DIAGRAM Use case Diagram Activity Diagram Sequence Diagram Class Diagram	11
10.	DATA DICTIONARY	20
11.	PROCESS ALGORITHMS	23
12.	GUI SCREENS	24
13.	TEST CASE	52
14.	MIS REPORT	56
15.	DSS REPORT	57
16.	LEARNING WORK EXPERIENCE	58
17.	FUTURE ENHANCEMENTS	59
18.	CONCLUSION	60
19.	REFERENCES	61

Abstract

- Welcome to the introduction of the cutting-edge Real Estate Management System, a project crafted meticulously by myself, Mihir Patel, to address the pressing needs within the ever-evolving real estate sector.
- With a keen eye on the dynamic landscape of property management, this individual emerged from a deep dive into the challenges faced by property owners, tenants, and management professionals alike.
- Grounded in extensive research and analysis, this project was conceived after identifying critical pain points within existing solutions and industry practices, a demand for innovation and optimization.
- Drawing upon my expertise and guided by insights from industry professionals, I embarked on a journey to design a bespoke system tailored to overcome these challenges with precision and efficacy.
- Through a process of iterative development and refinement, this system has evolved to become a trailblazing solution, poised to redefine the standards of efficiency and transparency in real estate asset management.
- As we delve deeper into the functionalities and capabilities of this system, it becomes evident that it stands not just as a project, but as a testament to my dedication to delivering a transformative tool for real estate professionals worldwide.

Project Timeline

Need of the System

Need of the System:

Centralized Data Management:

- REMS consolidates user data into a single platform, simplifying data management processes.

Seamless Communication:

- It facilitates easy communication with users through automated mail features, enhancing engagement and responsiveness.

Unified Inquiry Management:

- REMS aggregates all form inquiries into one location, streamlining response efforts and improving efficiency.

Enhanced Search Optimization:

- With REMS, search optimization becomes more effective, ensuring increased visibility and accessibility for users.

Benefits:

Improved Efficiency:

- REMS streamlines operations, reducing manual effort and enhancing productivity.

Cost Savings:

- By optimizing resource utilization and minimizing downtime, REMS helps lower operational expenses.

Enhanced Communication:

- REMS fosters transparent and efficient communication between stakeholders, improving collaboration.
- Better Decision-making With robust analytics and reporting features, REMS empowers informed decision-making, leading to improved outcomes.

Hardware requirements at development side

Hardware Component	Minimum Requirements	Recommended Requirements
Processor	Intel Core i3 or equivalent	Intel Core i5 or equivalent
	AMD Ryzen 3 or equivalent	AMD Ryzen 5 or equivalent
RAM (Memory)	4 GB	8 GB or higher
Storage	128 GB SSD or HDD	256 GB SSD or higher
Graphics	Integrated graphics with DirectX 11	Dedicated graphics with DirectX 12
Monitor	1366 x 768 resolution	1920 x 1080 resolution or higher
Operating System	Windows 10 (64-bit) or macOS 10.12+	Windows 10 (64-bit) or macOS 10.14+

Software requirements at development side

Software	Description	Version
Visual Studio Code	A lightweight yet powerful source code editor	1.88
Postman	A collaboration platform for API development	10.21
MongoDB Compass	A GUI tool for MongoDB database management	1.42.3 (Stable)
Express	the unopinionated, minimalist web framework for Node.js	4.19.2
React	A JavaScript library for building user interfaces	18.2.0
Node.js	A JavaScript runtime environment	21.5.0
NPM / Yarn	Package managers for Node.js	-
Chrome	Web browsers for testing and debugging	123.0.6312.105
GitHub	Platforms for hosting and sharing code repositories	3.12.1

Feasibility Study

Technical Feasibility:

- Compatible with standard hardware and software configurations.
- Scalable architecture for future growth.

Operational Feasibility:

- Seamless integration with existing workflows.
- Low maintenance requirements.

Economic Feasibility:

- Justified development and implementation costs.
- Anticipated ROI outweighs initial investment.

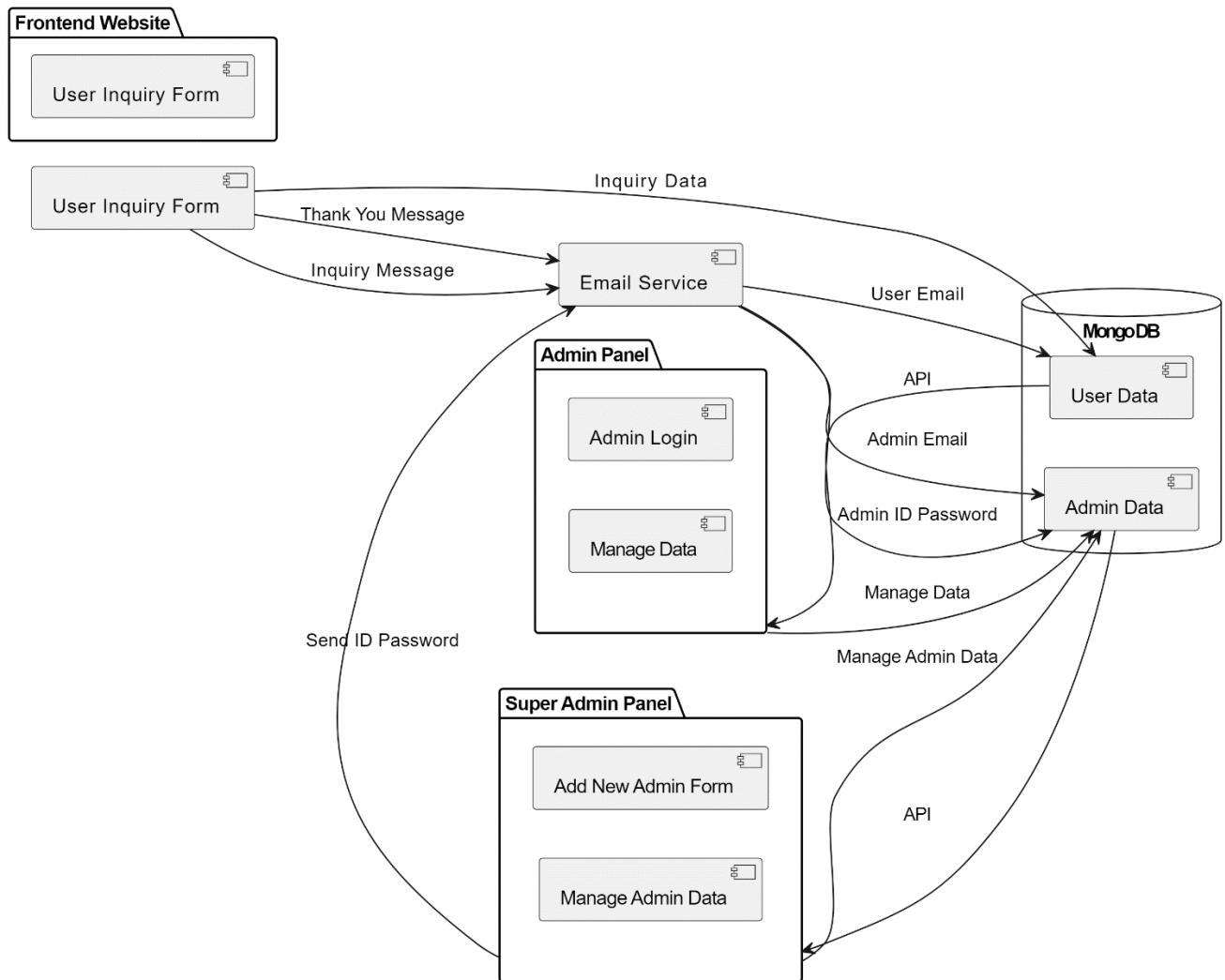
Schedule Feasibility:

- Developed and deployed within the planned timeframe.

Legal and Regulatory Feasibility:

- Compliance with data privacy, security, and real estate regulations.
- Risk management measures in place.

System architectural diagram



Software Requirements Specifications

Subsystems Overview

- Module Hierarchy Diagram:
- Frontend Website
- Admin Panel
- Super Admin Panel
- Database (MongoDB)
- Email Service

For Each Subsystem...

i. Functional Requirements

Frontend Website:

- Allow users to submit inquiries through various forms (inquiry form, contact form, etc.).
- Display thank you messages to users upon form submission.

Admin Panel:

- Allow admins to log in securely.
- Provide functionalities to manage user inquiries (view, delete, respond).
- Generate reports on user inquiries.

Super Admin Panel:

- Enable super admins to log in securely.
- Allow super admins to manage admins (add, delete, view).

Database (MongoDB):

- Store user and admin data securely.

Email Service:

- Send thank you messages to users upon inquiry form submission.
- Notify admins about new inquiries via email.
- Send ID and password to newly added admins.

ii. Data Requirements

Database (MongoDB):

- Use MongoDB to store user and admin data.
- Define data structures for user and admin information (e.g., name, email, inquiry details).

iii. User Interface Requirements

Frontend Website:

- Design user-friendly forms for submitting inquiries (inquiry form, contact form, etc.).
- Ensure responsive design for accessibility across devices.

Admin Panel:

- Create an intuitive interface for admins to manage user inquiries.
- Include features for viewing, responding to, and deleting inquiries.

Super Admin Panel:

- Design an interface for super admins to manage admins efficiently (add, delete, view).
-

Email Service:

- Implement email templates for thank you messages and inquiry notifications.

iv. Performance Requirements

Frontend Website:

- Ensure fast response time for form submissions (<2 seconds).

Admin Panel:

- Support concurrent access from multiple admins without performance degradation.

Super Admin Panel:

- Handle management operations efficiently, even with a large number of admins.

v. Other Constraints

Security Constraints:

- Implement secure authentication mechanisms for user and admin logins.
- Encrypt sensitive data (e.g., passwords) during transmission and storage.

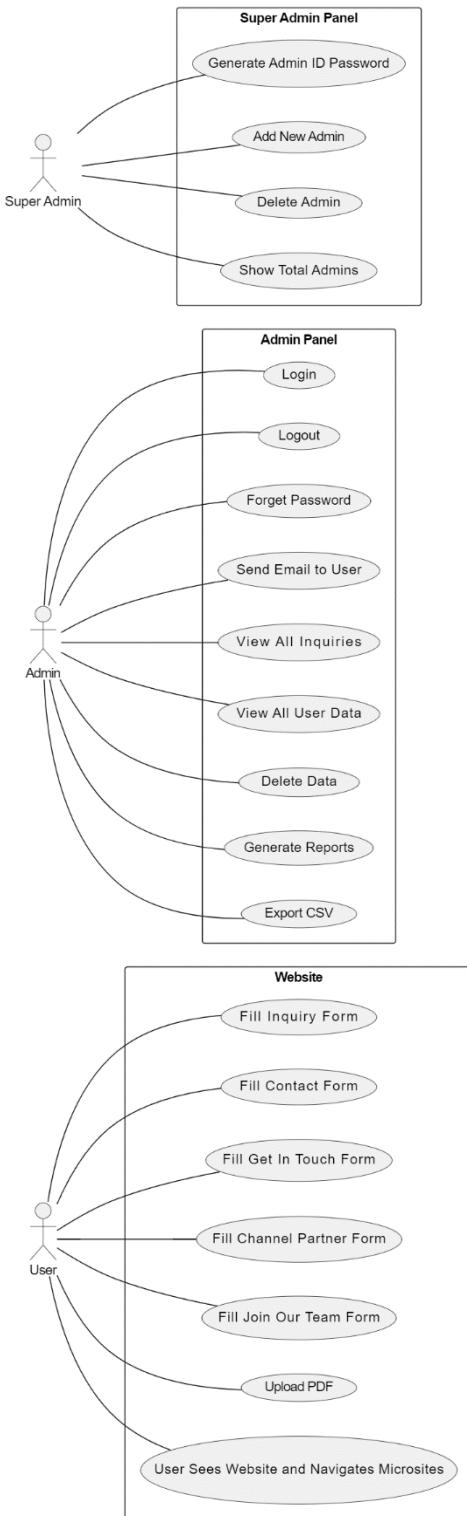
Regulatory Compliance:

- Comply with data protection regulations (e.g., GDPR) regarding user and admin data handling.

Environmental Constraints:

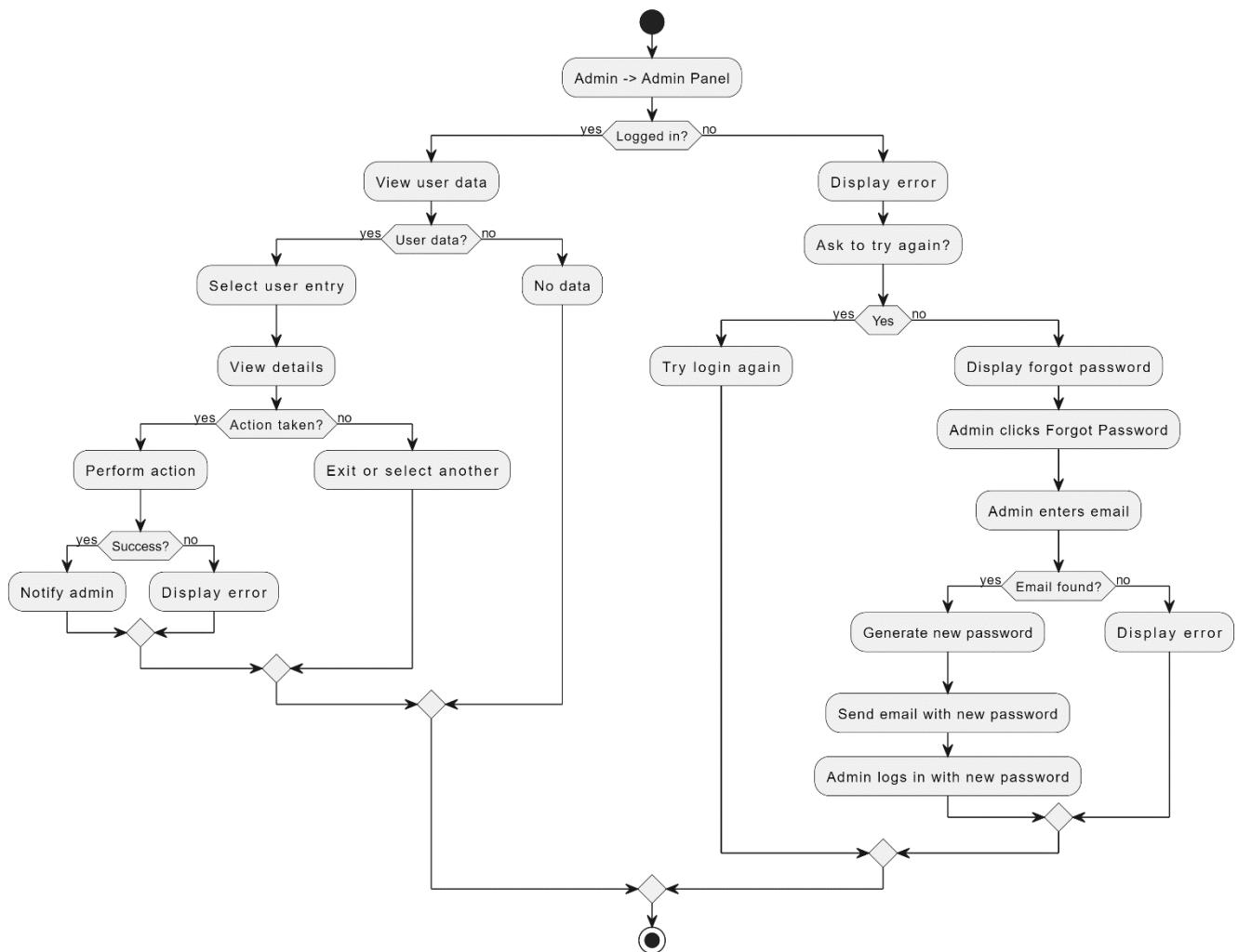
- Ensure compatibility with commonly used web browsers (Chrome, Firefox, Safari).

Use Case Diagram

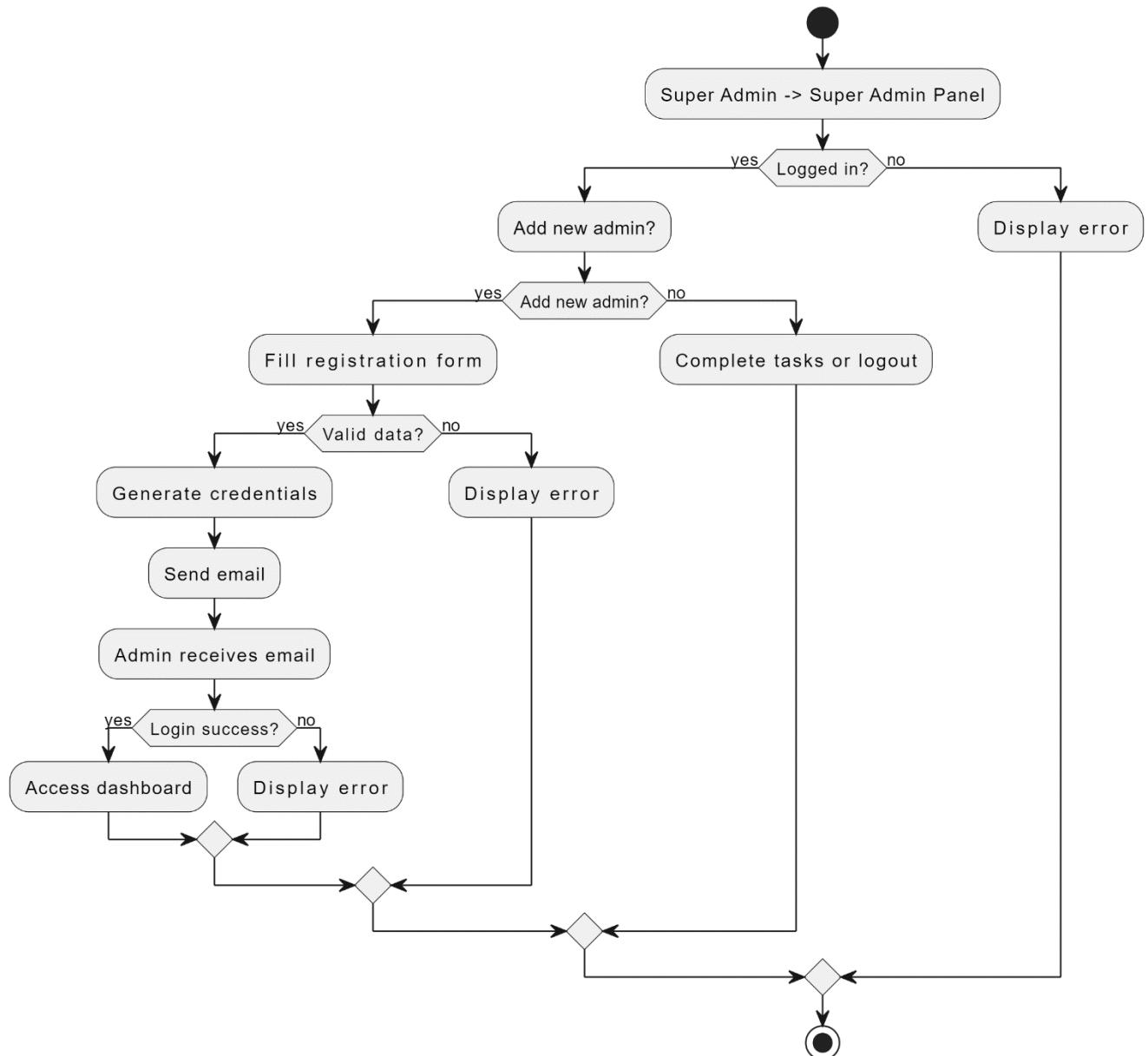


Activity Diagram

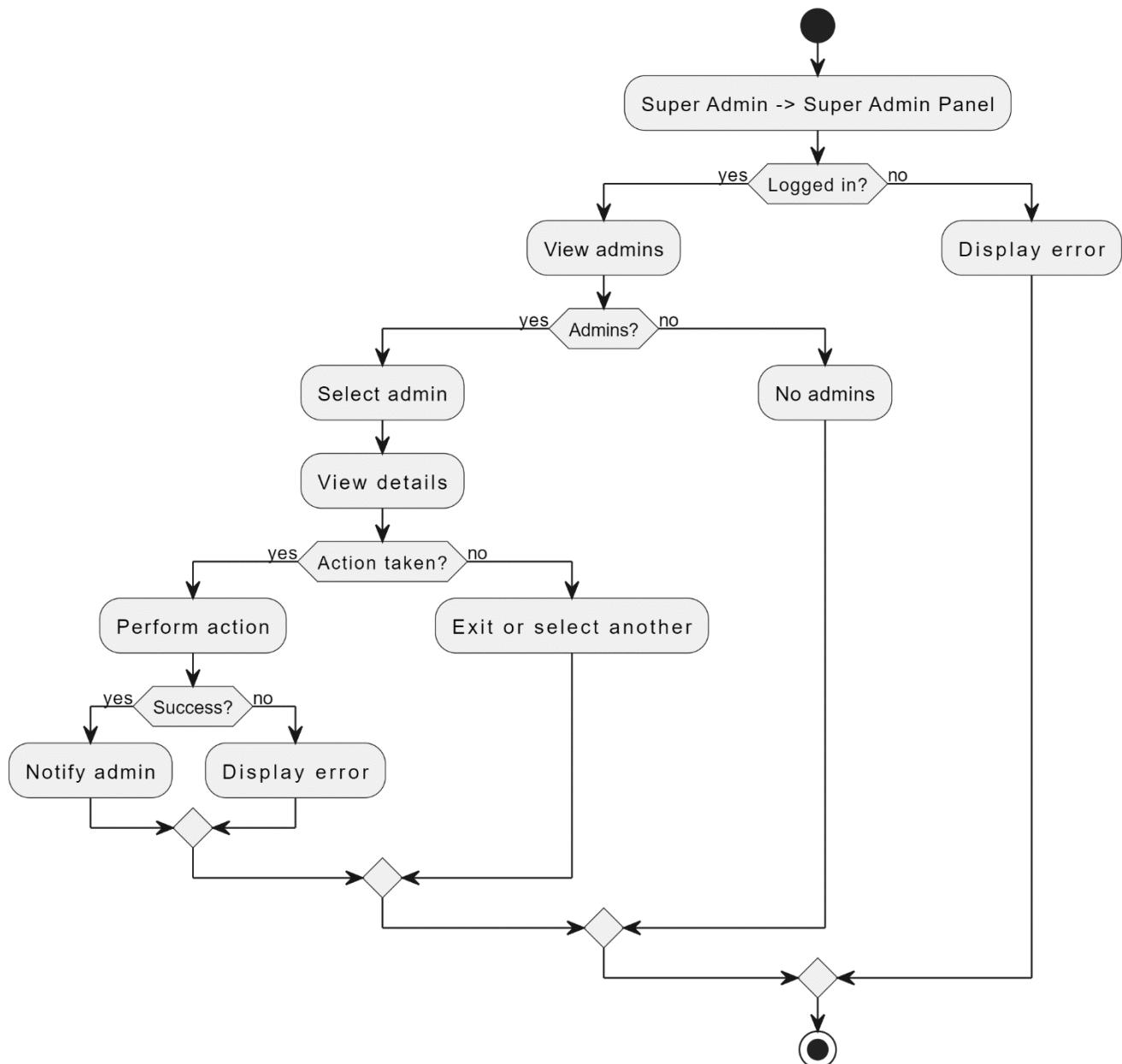
Admin:



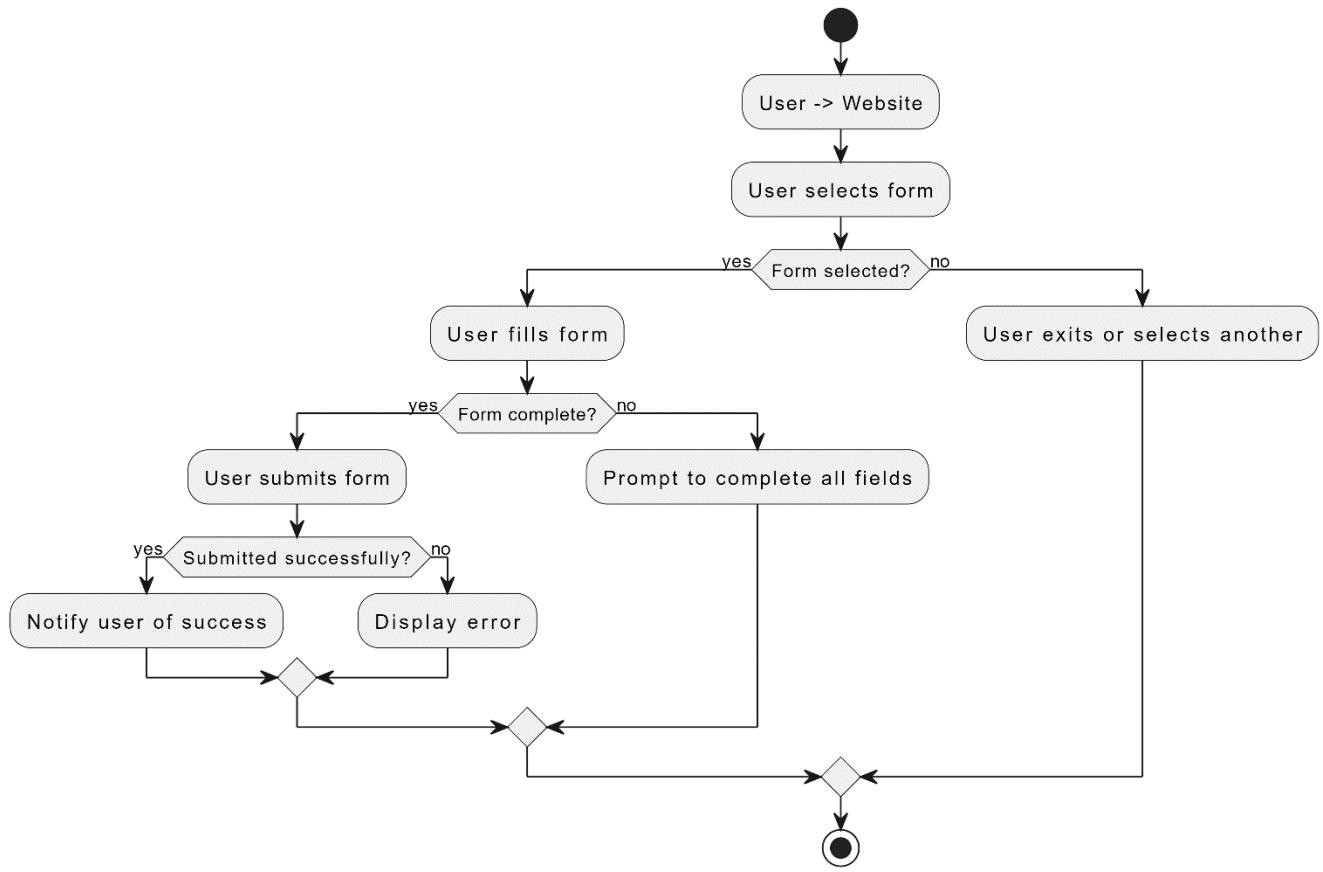
Super Admin:



Super Admin:

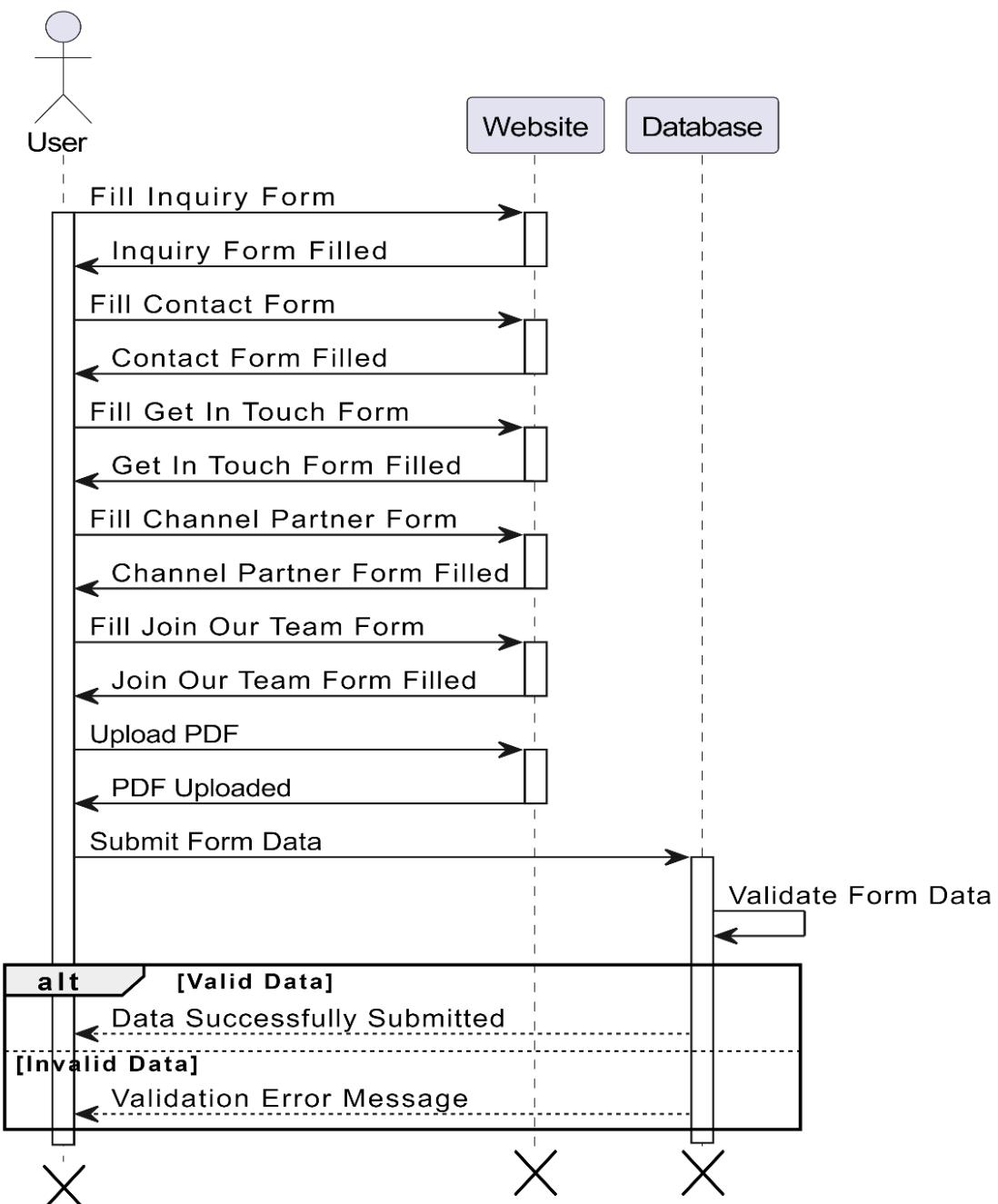


User:

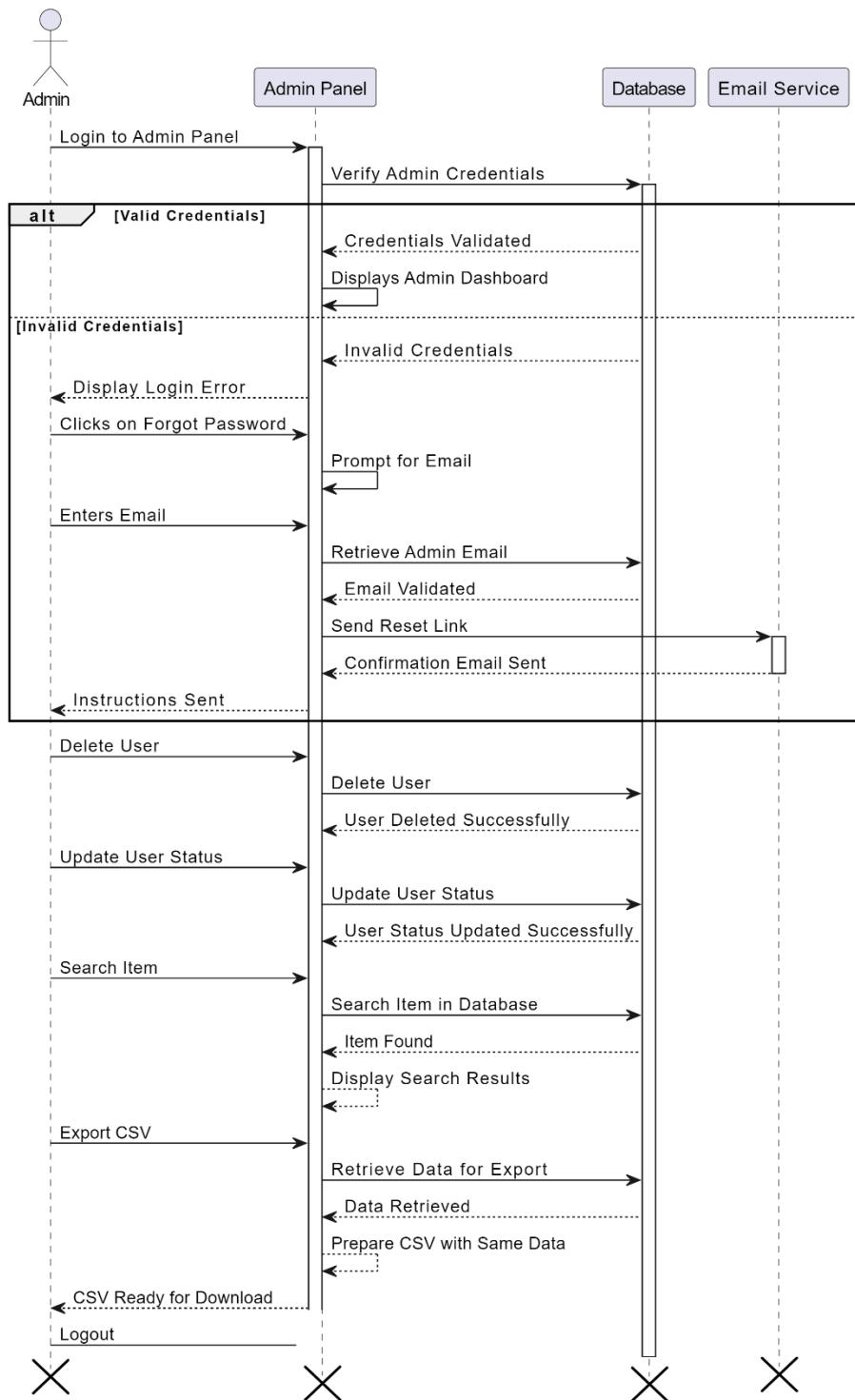


Sequence Diagram

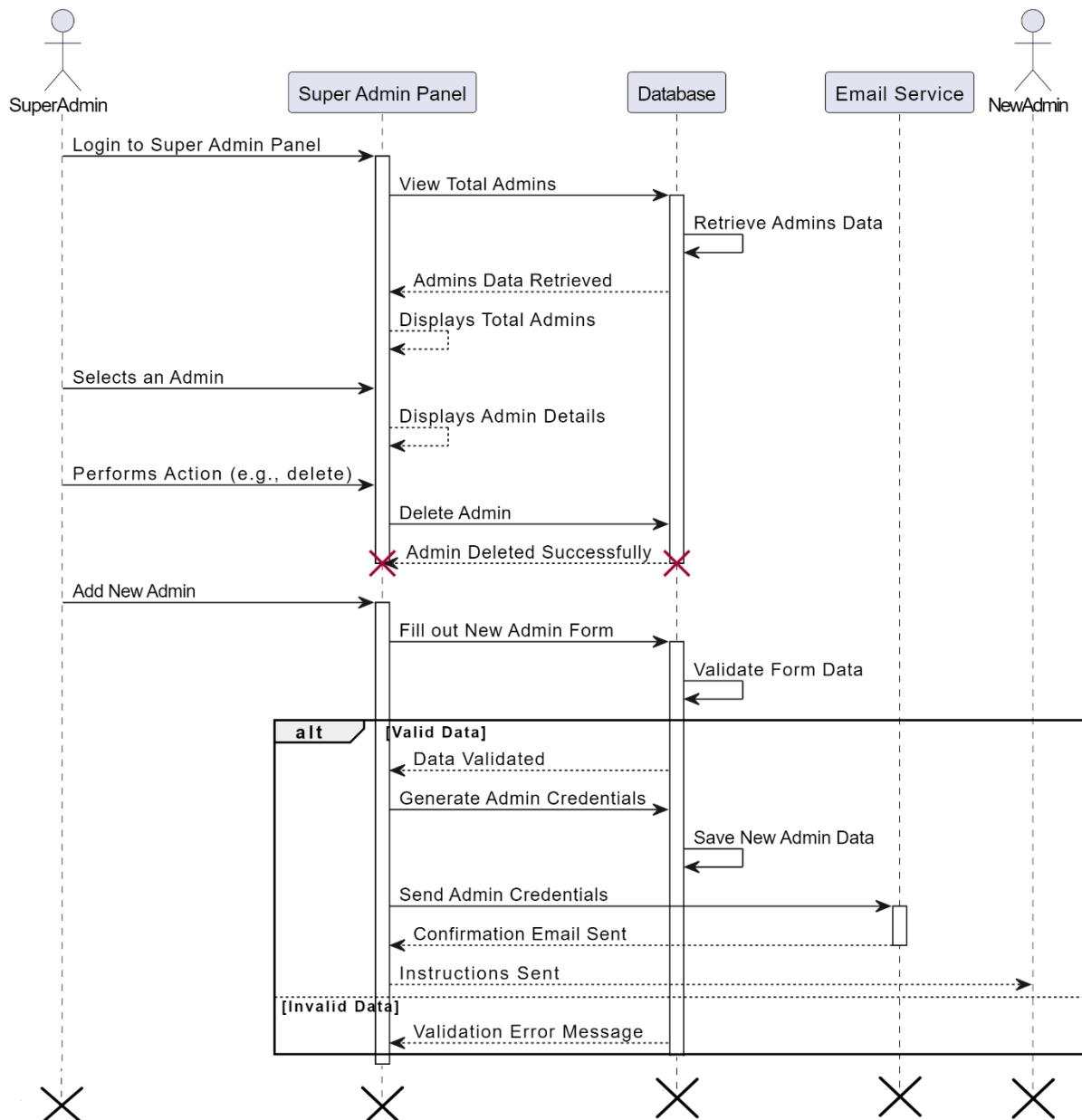
User Sequence Diagram:



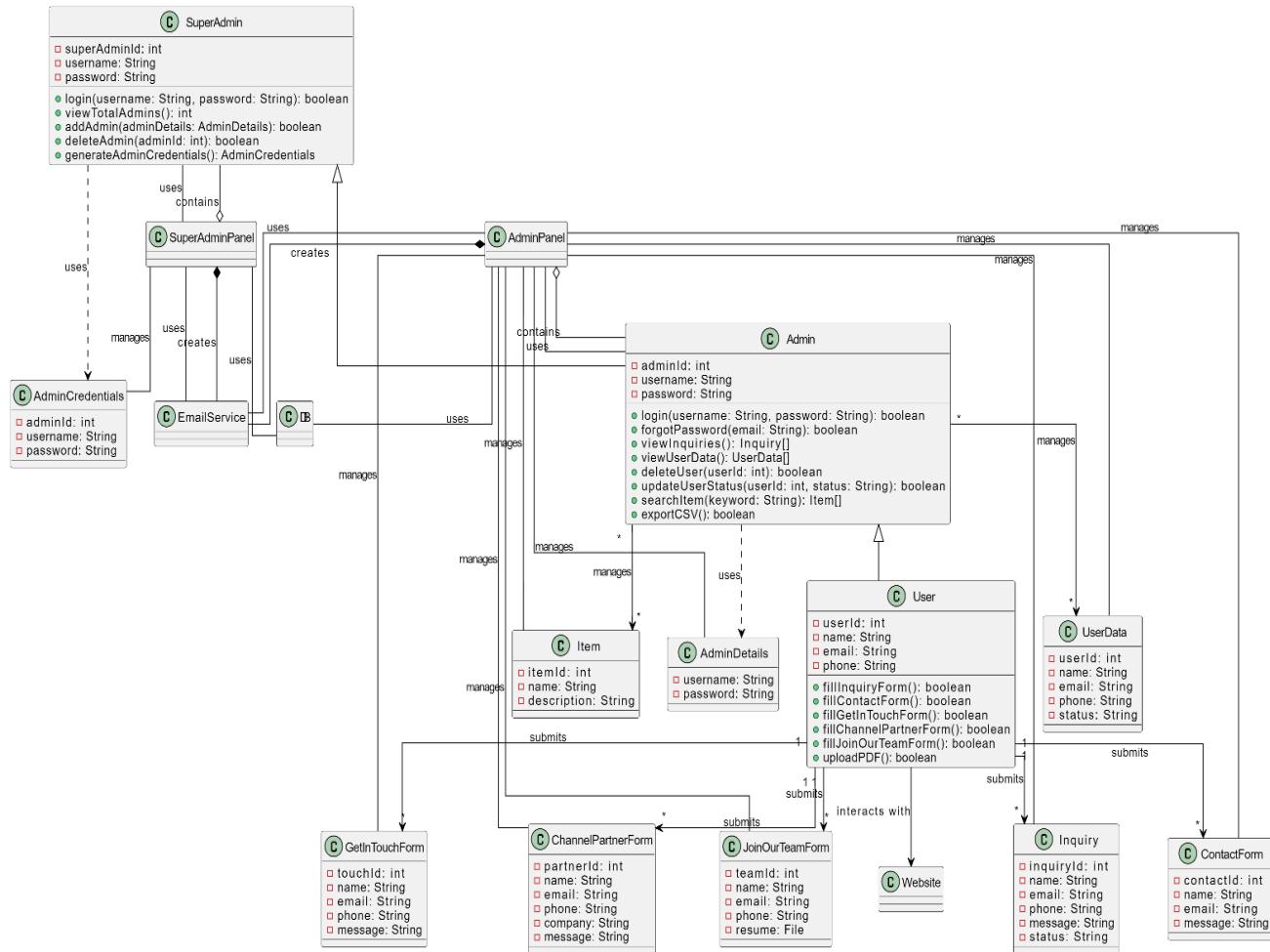
Admin Sequence Diagram:



Super Admin Sequence Diagram:



Class diagram



Data dictionary

Admin Detail

Column Name	Column Name2	Field Size	Column Name3	Column Name4
firstName	String	50	First name of the admin	John
lastName	String	50	Last name of the admin	Doe
email	String		Email address of the admin	john@example.com
phoneNumber	String		Phone number of the admin	1234567890
companyName	String	100	Name of the admin's company	ABC Inc.
companyAddress	String		Address of the admin's company	123 Main St, City, Country
selectedCountry	String		Selected country of the admin	USA
selectedState	String		Selected state of the admin	California
selectedCity	String		Selected city of the admin	Los Angeles
message	String		Additional message from the admin	This is a message
password	String		Password for admin login	*****
registrationDay	Number		Day of registration of the admin	1
registrationMonth	String		Month of registration of the admin	January
registrationYear	Number		Year of registration of the admin	1990
status	String		Status of the admin account	Active
profileImage	String		Profile image URL of the admin	/images/profile.jpg

Channel Partner

Column Name	Data Type	Field Size	Description	Example
_id	ObjectId	-	Unique identifier for the partner entry	65eabff12ab5cad9d82ee71d
name	String	255	Name of the channel partner	Mihir Patel
email	String	255	Email address of the channel partner	mihirpatel6pg6@gmail.com
phone	String	15	Phone number of the channel partner	7284947282
companynamne	String	255	Name of the company	Samsung
message	String	-	Message content	Lorem Ipsum...
day	String	-	Day of contact	8
month	String	-	Month of contact	March
year	String	-	Year of contact	2024
status	String	-	Status of the contact (e.g., no-answer)	no-answer

Contact Us

Column Name	Data Type	Field Size	Description	Example
_id	ObjectId	-	Unique identifier for the contact entry	65eab1aecbb8902001111b7b
name	String	255	Name of the contact	John Doe
email	String	255	Email address of the contact	johndoe@example.com
phone	String	15	Phone number of the contact	1234567890
select	String	255	Purpose of contacting	Purpose
message	String	-	Message content	This is a random message.
day	String	-	Day of contact	10
month	String	-	Month of contact	February
year	String	-	Year of contact	2023
status	String	-	Status of the contact (e.g., no-answer)	no-answer

Get in touch

Column Name	Data Type	Field Size	Description	Example
_id	ObjectId	-	Unique identifier for the touch entry	65e8aa4cc225a4a1f867fc8
name	String	255	Name of the person getting in touch	Lisa Brown
email	String	255	Email address of the person getting in touch	lisa.brown@example.com
phone	String	15	Phone number of the person getting in touch	1234567890
message	String	-	Message content	Hello there
day	String	-	Day of contact	10
month	String	-	Month of contact	January
year	String	-	Year of contact	2024
status	String	-	Status of the contact (e.g., no-answer)	no-answer

Inquiries

Column Name	Data Type	Field Size	Description	Example
_id	ObjectId	-	Unique identifier for the inquiry entry	65e859fcf225a4a1f867cf94
name	String	255	Name of the person making the inquiry	Rahul Patel
email	String	255	Email address of the person making the inquiry	rahul2001@gmail.com
phone	String	15	Phone number of the person making the inquiry	6951525665
interest	String	-	Inquiry message/content	Hello i am rahul
day	Integer	-	Day of inquiry	5
month	String	-	Month of inquiry	March
year	Integer	-	Year of inquiry	2024
status	String	-	Status of the inquiry (e.g., no-answer)	no-answer

Join our team

Column Name	Data Type	Field Size	Description	Example
_id	ObjectId	-	Unique identifier for the job application	65ec656c7ce617c422bc5962
name	String	255	Name of the applicant	Mihir Patel
email	String	255	Email address of the applicant	mihirpatel6pg6@gmail.com
phone	String	15	Phone number of the applicant	7284947282
select	String	255	Department selected for application	Administration
image	String	-	Resume file uploaded	1709991276120Mihir_Resume.pdf
comment	String	-	Additional comments by the applicant	Appling for intern
day	String	-	Day of application	9
month	String	-	Month of application	March
year	String	-	Year of application	2024
status	String	-	Status of the application (e.g., pending review)	Pending Review

Process Algorithms

User Inquiry Submission Algorithm:

When a user submits an inquiry form:

1. Collect the inquiry details including name, email, phone, message, etc.
2. Validate the input data.
3. Save the inquiry data to the database.
4. Send a confirmation email to the user.
5. Notify the admin about the new inquiry.

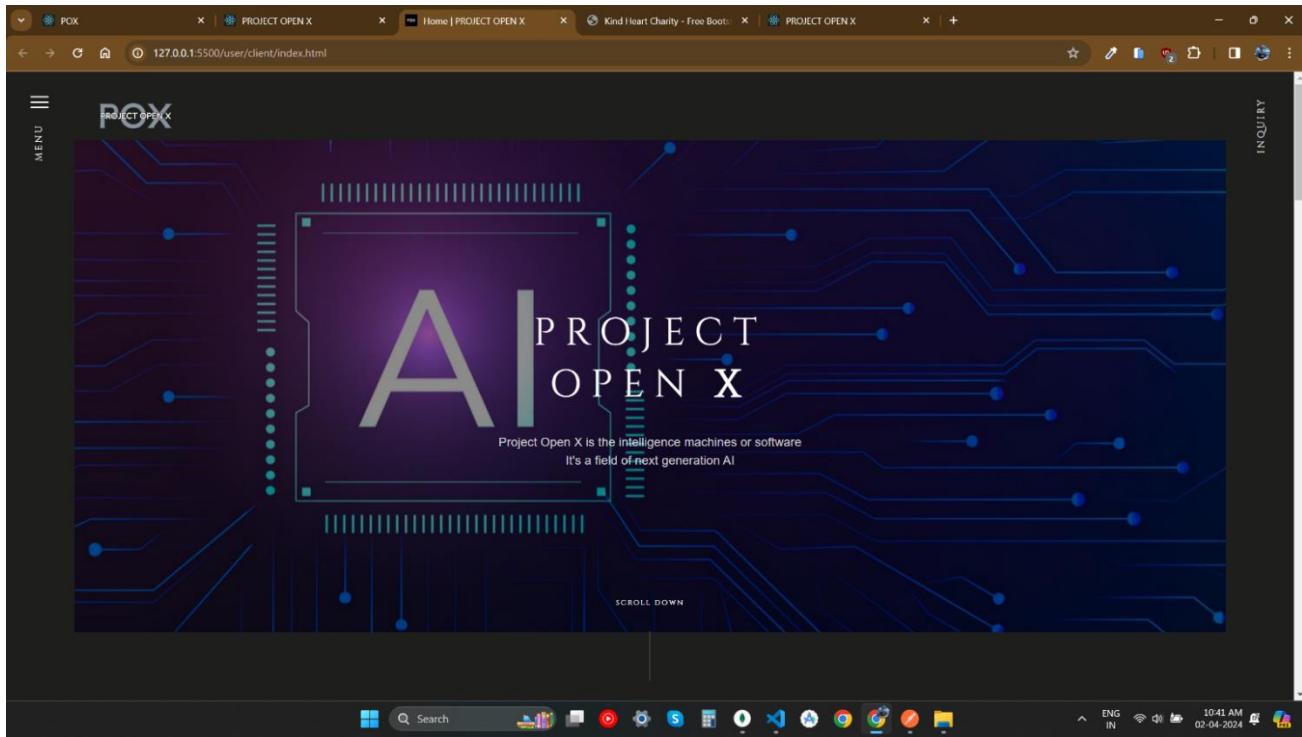
Admin Login Algorithm:

When an admin attempts to log in:

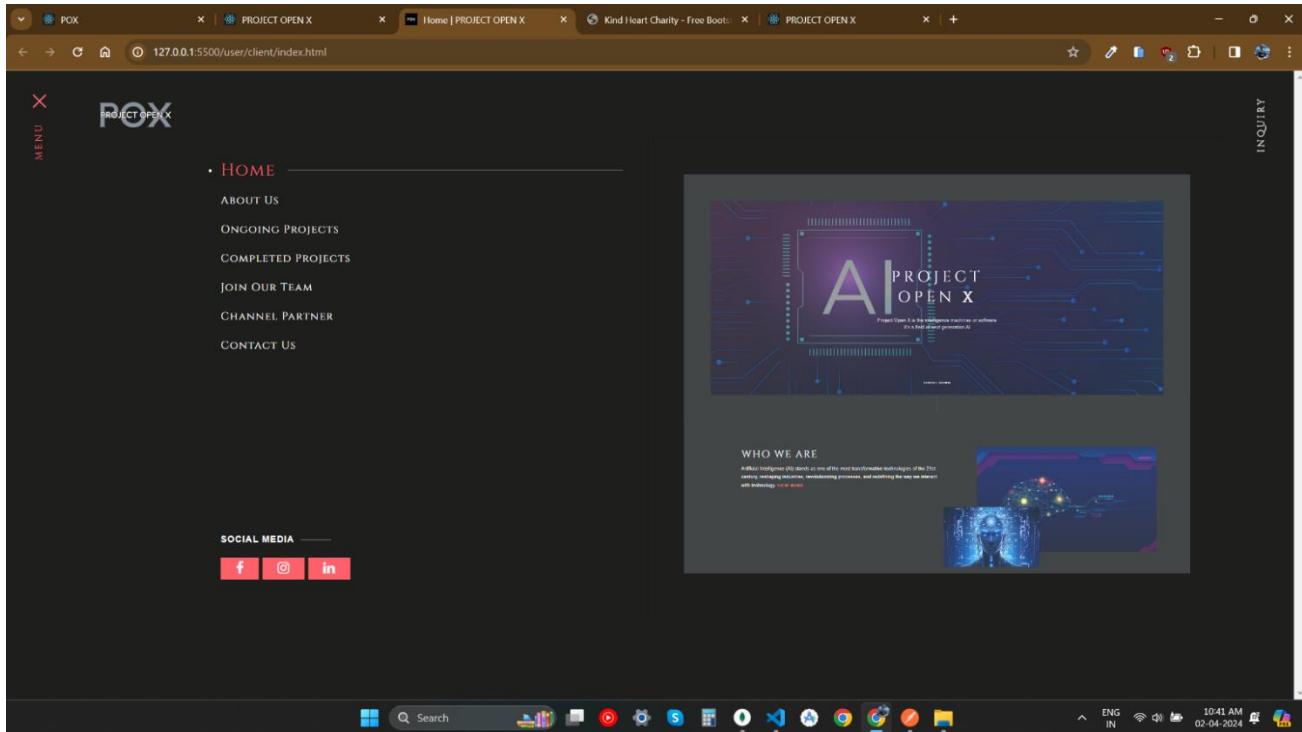
1. Verify the admin's credentials.
2. Grant access if the credentials are correct.
3. Log the login attempt and update the admin's last login time.

GUI Screens

landing page



Menu



POX PROJECT OPEN X Home | PROJECT OPEN X Kind Heart Charity - Free Boots PROJECT OPEN X

127.0.0.1:5500/user/client/index.html

WHO WE ARE

Artificial Intelligence (AI) stands as one of the most transformative technologies of the 21st century, reshaping industries, revolutionizing processes, and redefining the way we interact with technology. [VIEW MORE](#)



OUR ACHIEVEMENTS

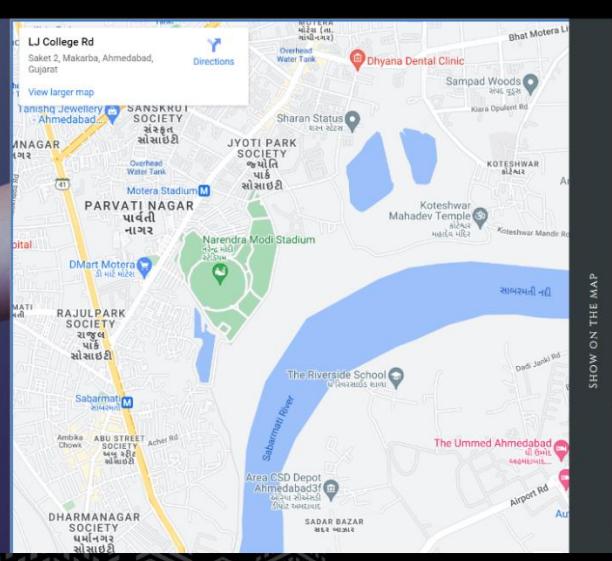
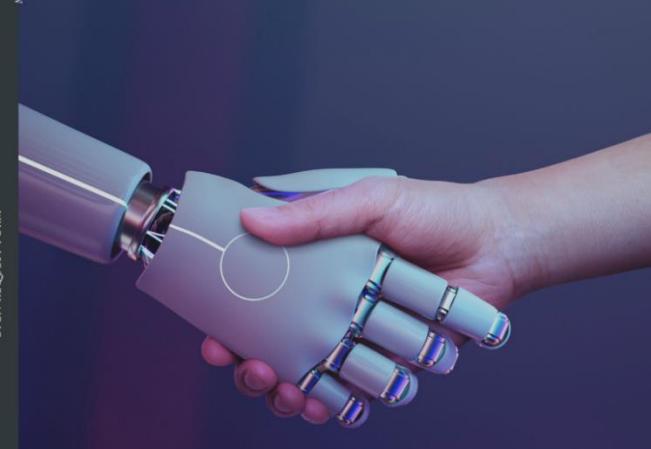
40+	5,000+	40 LAKH	20+
AI PROJECTS	CUSTOMERS	AI PROCESS	COMPLETED AI MODELS

ENG IN 02-04 10:41 AM

Google Map

POX PROJECT OPEN X Home | PROJECT OPEN X Kind Heart Charity - Free Boots PROJECT OPEN X

127.0.0.1:5500/user/client/index.html



OPEN REQUEST FORM SHOW ON THE MAP

ENG IN 02-04 10:42 AM

Inquiry Form

The screenshot shows a web browser window with multiple tabs open. The active tab displays an 'INQUIRY FORM' with a dark background. The form fields include 'Your name' (Mihir Patel), 'Your Email' (mihirpatel6pg6@gmail.com), and a phone number field ('+91 07284947282'). Below these, there's a text area for 'Tell us what interests you' containing the word 'Hello'. A 'SEND' button is at the bottom. To the left of the form, the text 'THANK YOU' is displayed vertically. The browser's address bar shows the URL '127.0.0.1:5500/user/client/index.html'. The taskbar at the bottom shows various pinned icons and the system tray indicates the date as 02-04-2024 and time as 10:58 AM.

Description: This form allows users to submit inquiries.

Input Field Mapping:

Name (Input field) → name (Database field)

Email (Input field) → email (Database field)

Phone (Input field) → phone (Database field)

Interest (Input field) → interest (Database field)

Entry Date (Input fields) → day, month, year (Database fields)

Output Storage Details:

- Data is stored in the "inquiries" collection in the MongoDB database.

Code Snippets:

API to fetch data from the user and store it in Mongo DB database

```
const datas = await fetch("http://localhost:4500/addInquiries", {
    method: "POST",
    body: JSON.stringify({ name, email, phone, interest, day, month, year,
status }), 
    headers: {
        "Content-Type": "application/json"
    }
});
```

API to set data inside the React data table (admin panel) and manage it

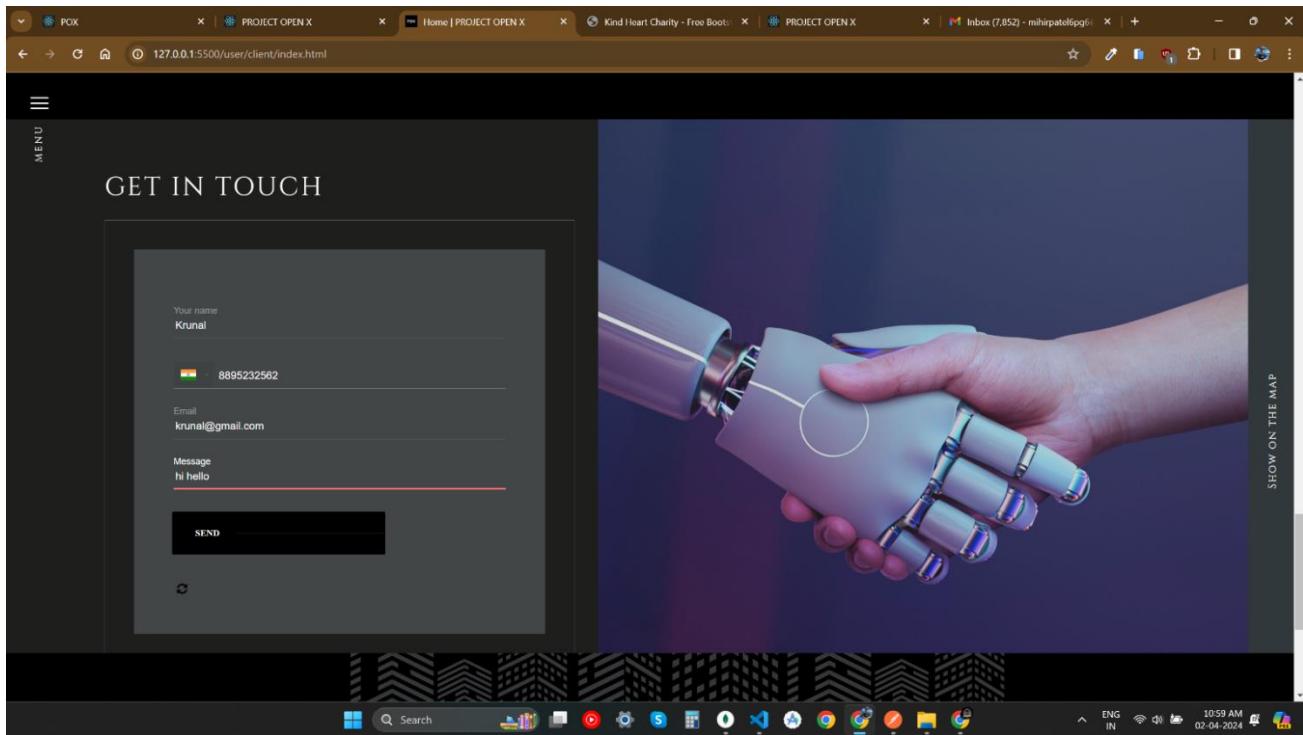
```
const [showInquiries, setShowInquiries] = useState([]);

const showInquiry = async () => {
    const datas = await fetch("http://localhost:4500/showInquiries");
    const results = await datas.json();
    if (results) {
        setShowInquiries(results);
        console.log(results);
    }
};
```

Business Rules and Processes:

- Data validation rules apply to input fields (e.g., email format validation).
- Upon successful submission, a confirmation email is sent to the user.

Get in touch



Input Field Mapping:

Name (Input field) → name (Database field)

Email (Input field) → email (Database field)

Phone (Input field) → phone (Database field)

Message (Input field) → message (Database field)

Entry Date (Input fields) → day, month, year (Database fields)

Code Snippets:

```
const showGetintouch = async () => {
  const datas = await fetch("http://localhost:4500/showGetintouchs");
  const results = await datas.json();
  if (results) {
    setShowGetintouchs(results);
    console.log(results);
  }
};
```

Join our team

Your Full Name
Mihir Patel

Your Email Address
mihirpatel6ppg@gmail.com

+91 - 9956523523

Sales & Marketing

Additional Comments
Thanks

Choose File Mihir_Resume.pdf

SEND

Channel Partner

Name
Yash Thanki

Email
yash05@gmail.com

+91 - 8854523256

Company Name
Nvidia

Message
Hello

SUBMIT

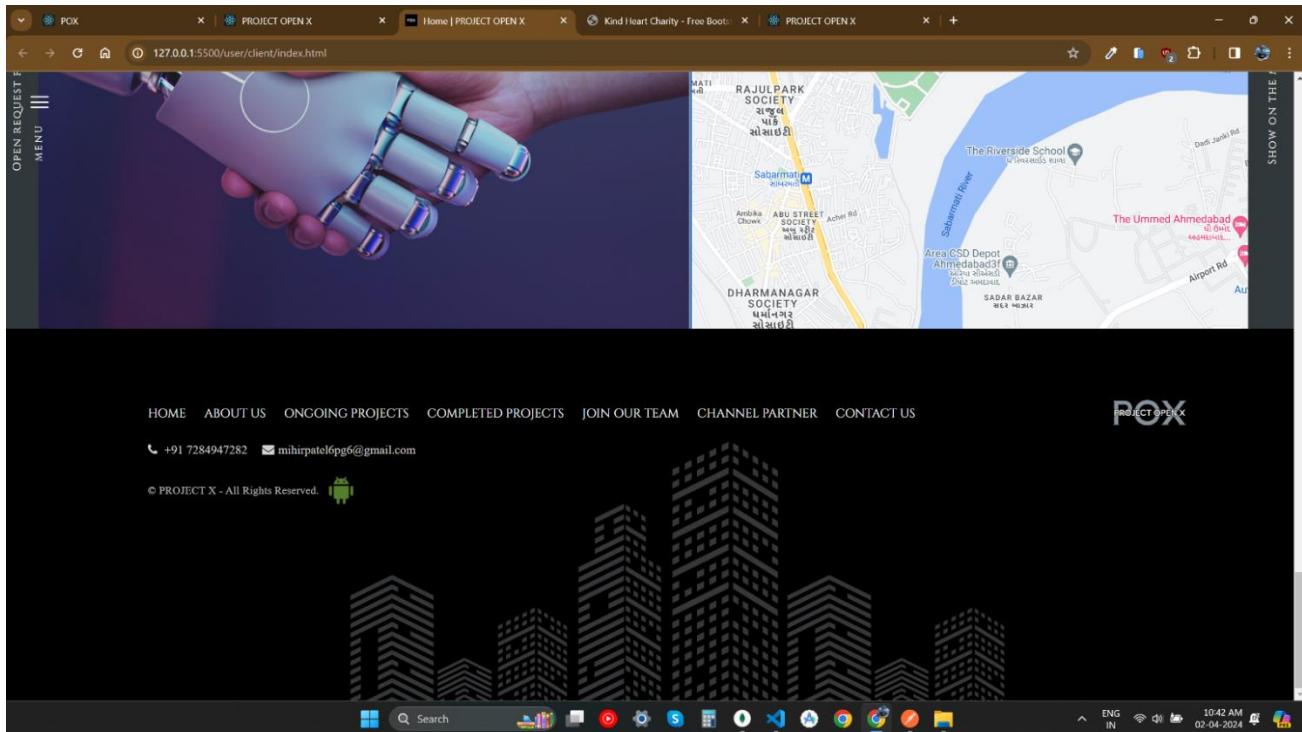
Contact Us

The screenshot shows a contact form titled "INQUIRY". The form fields include:

- Name: Mihir Patel
- Email: mihirpatel6pg6@gmail.com
- Phone: +91 - 07284947282
- Vendor: (dropdown menu)
- Message: hi hello

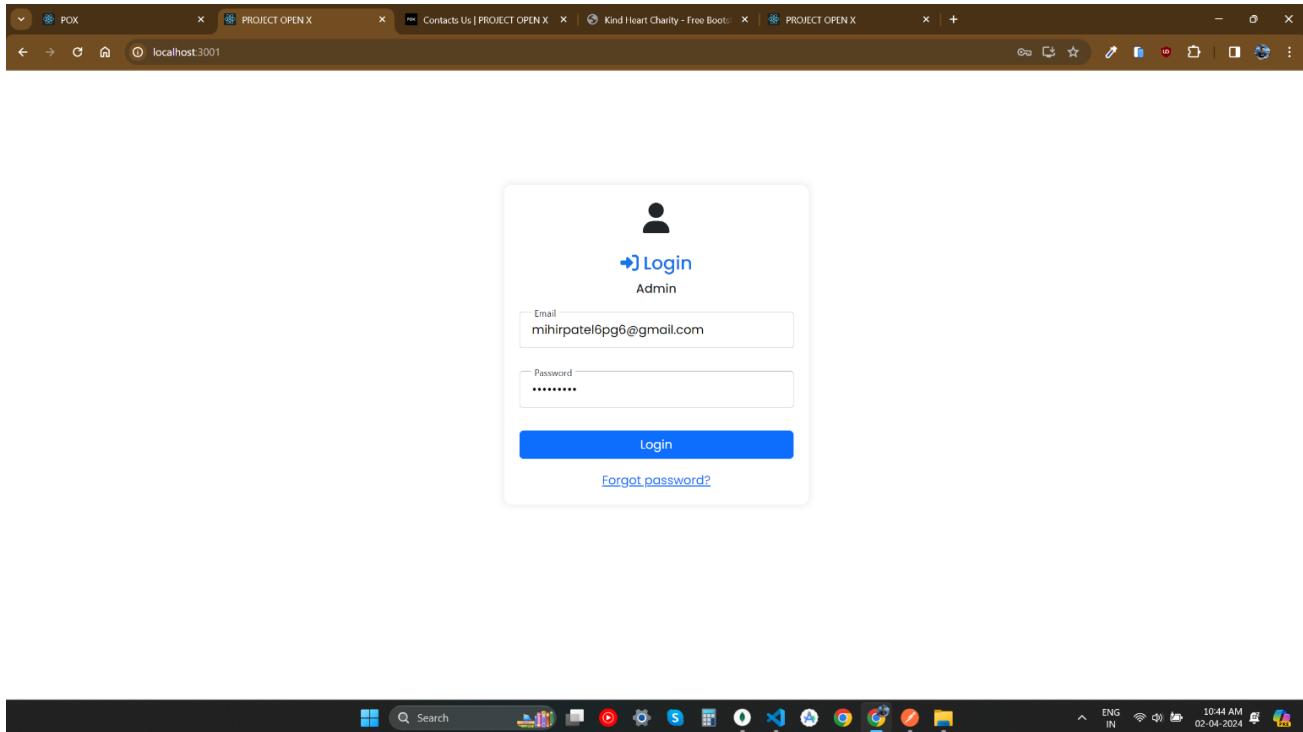
Below the message field is a "SEND" button.

Footer



Admin

Login



Description:

- This login page allows the admin to log into the admin panel using email id and password

Input Field Mapping:

Email (Input field) → email (Database field)

Password (Input field) → password (Database field)

Business Rules and Processes:

- Admin credentials are securely verified against stored data.
- Access is granted upon successful authentication.

Implemented:

Implementation Strategy:

- Frontend developed using the React.js framework.
- Backend developed using Node.js with Express.js framework.
- MongoDB is used as the database and Authentication is handled using JWT tokens.

To Be Implemented in Future:

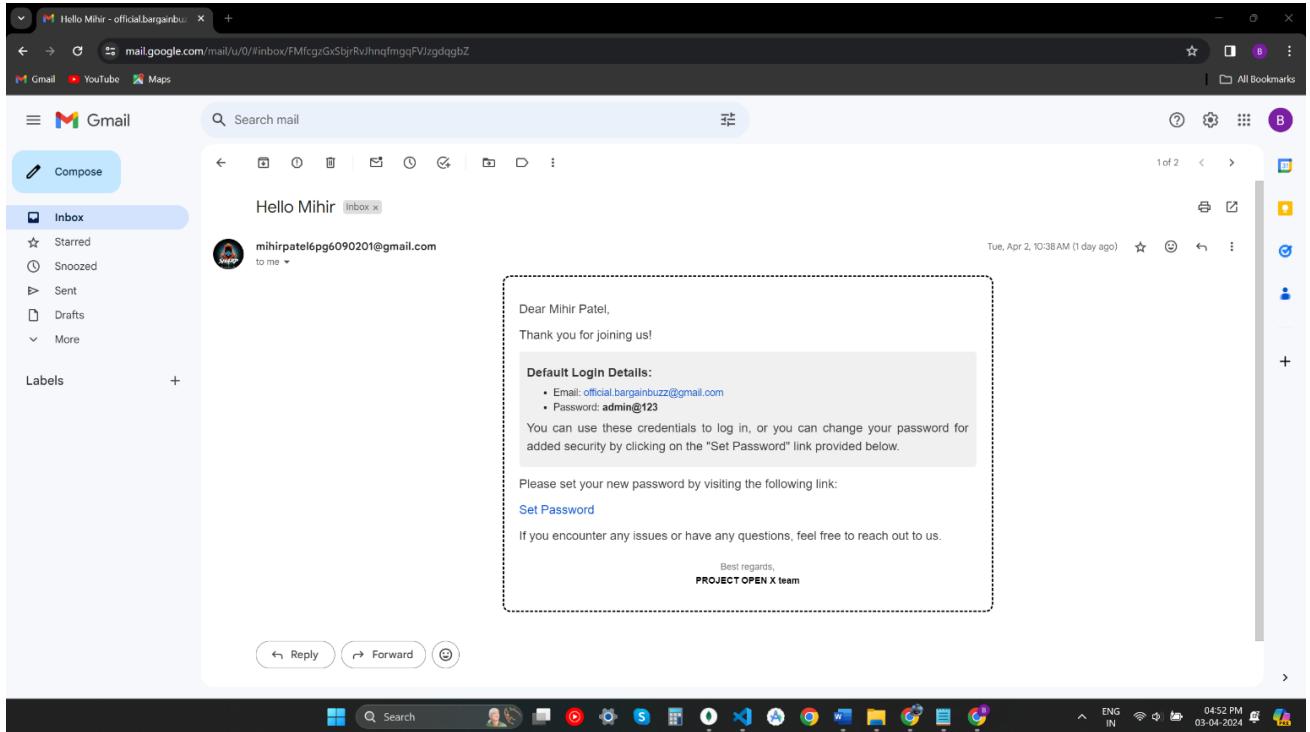
Future Implementation Strategy:

- Enhance form validation and error handling.
- Implement role-based access control for the admin panel.
- Integrate email notification system for admin alerts.

Semple Code:

```
const datas = await fetch("http://localhost:4600/adminlogin", {
    method: "post",
    body: JSON.stringify({ email, password, companyName }),
    headers: {
        "Content-Type": "application/json"
    }
})
```

Email



Super Admin send → Admin (Email ID and Password)

Description:

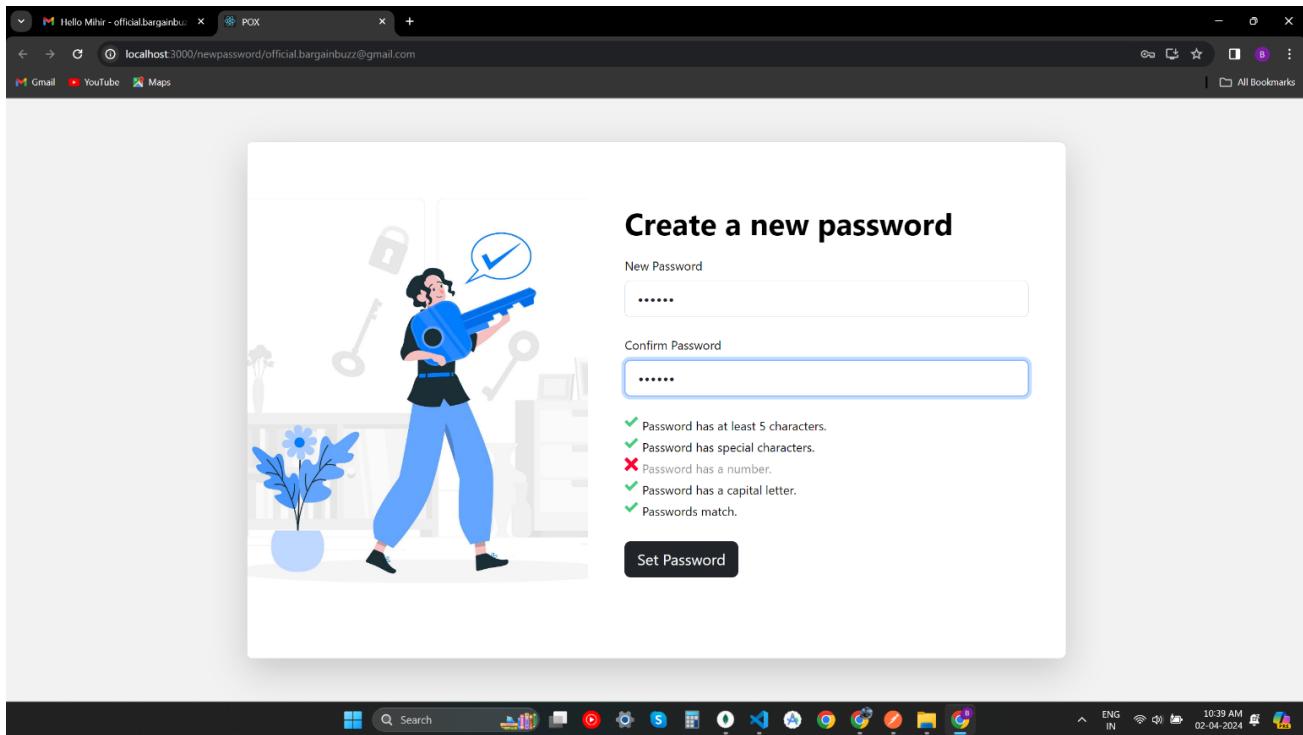
- Admin can log into the admin panel using this Email ID and Password
- By using the link below admin can also create their password
- This email was sent by the super admin

Input Field Mapping:

Set Password (Input field) → email (Database field)

Password (Input field) → password (Database field)

Create a New Password



Super Admin send → Admin (Email ID and Password)

Description:

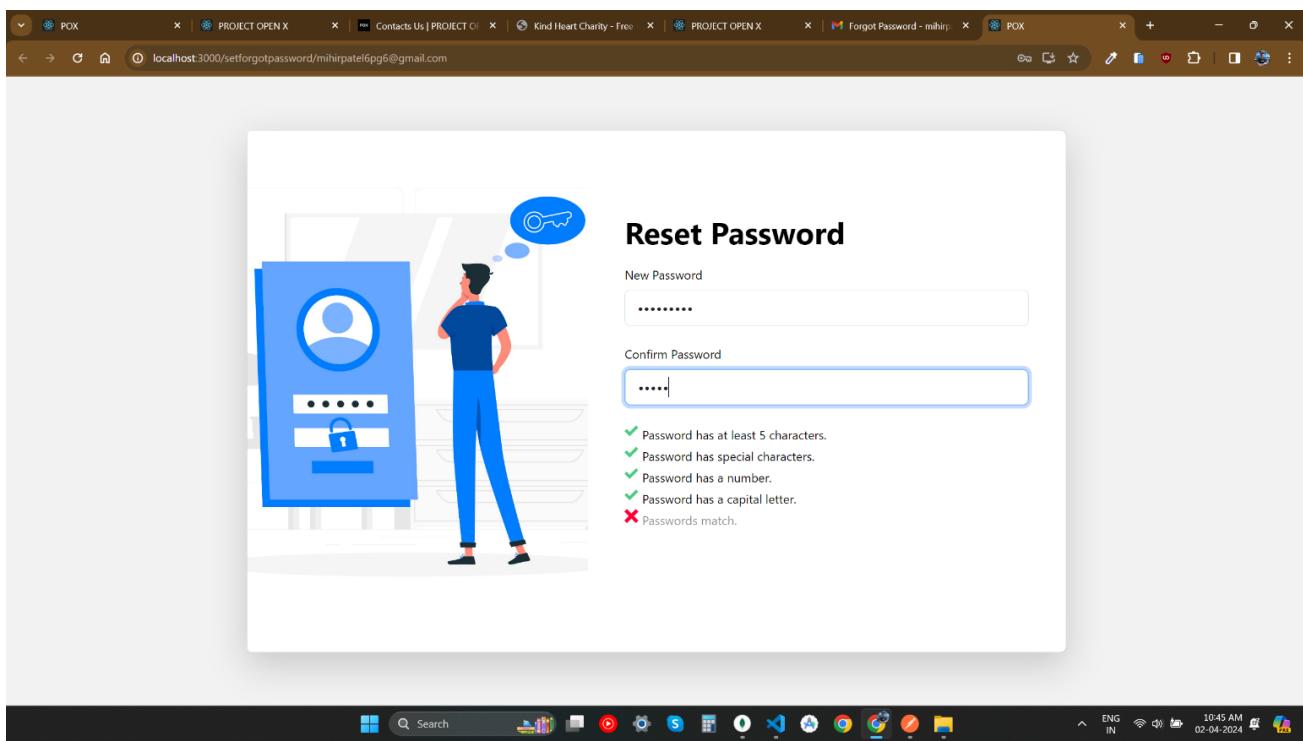
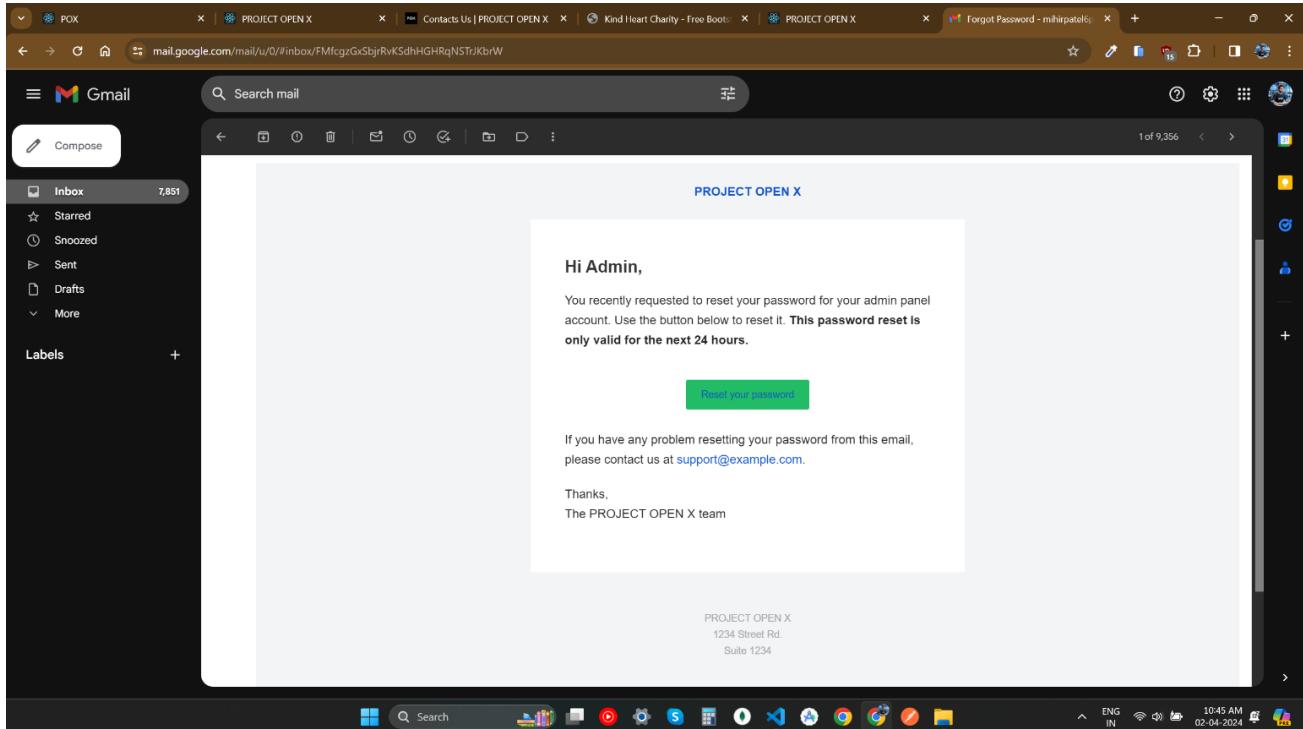
- By using the link below admin can also create their password
- This email was sent by the super admin
- Now Admin can log into the admin panel using this new password

Input Field Mapping:

New Password (Input field) → password (Database field)

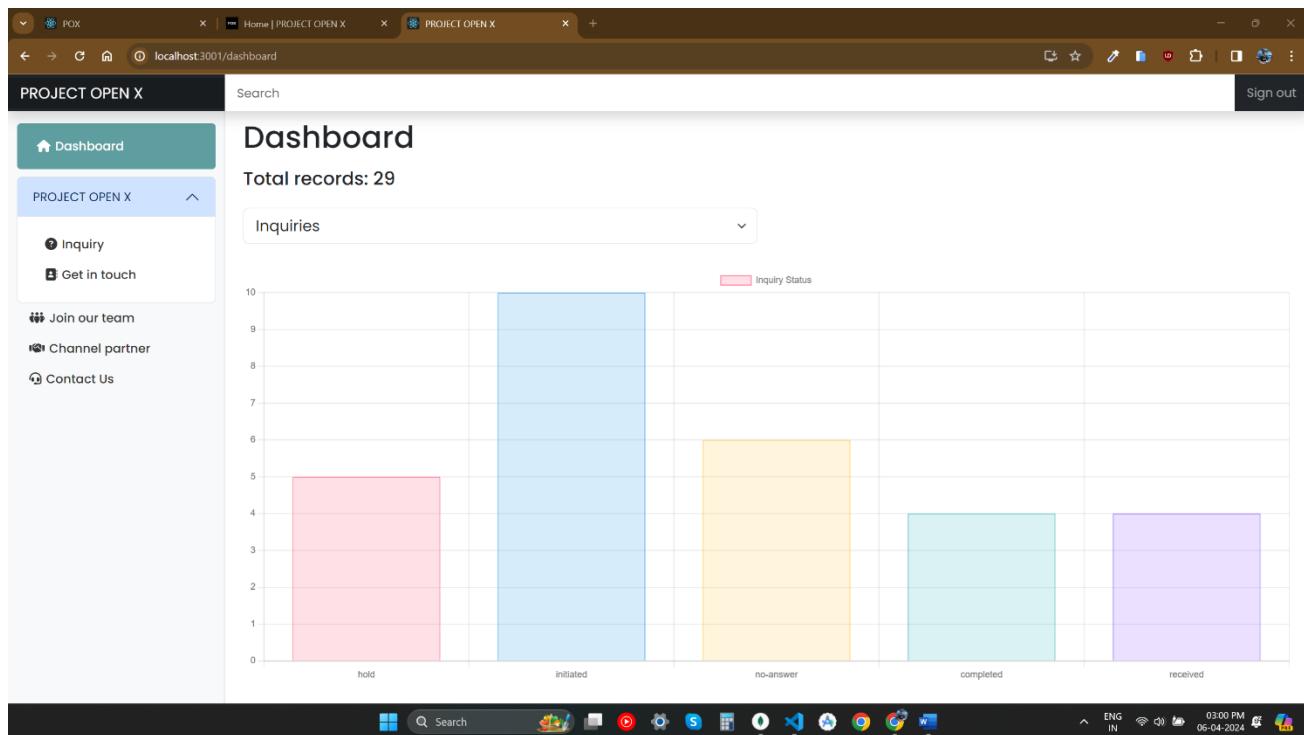
Confirm Password (Input field) → password (Database field)

Forgot Password

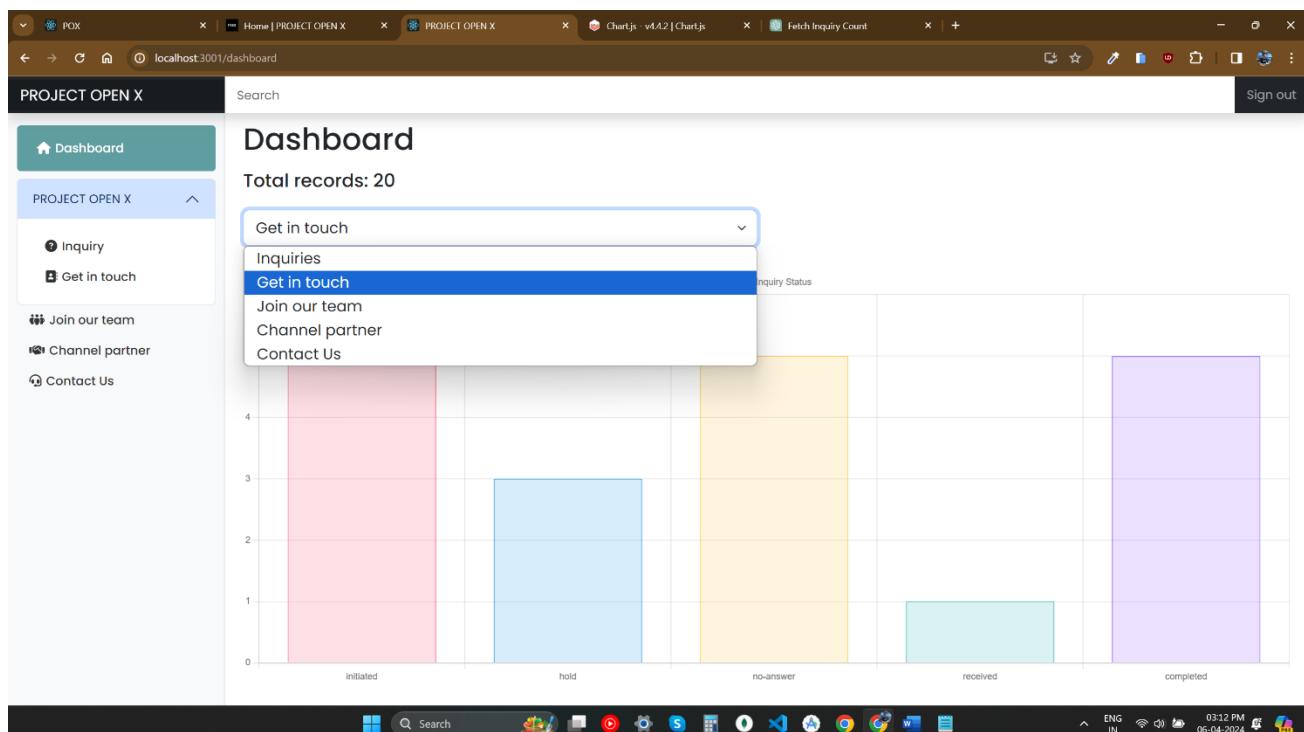


Admin Panel

Dashboard



graph



Description: "Visual representation of user data showcasing comprehensive insights through graphs."

Output Storage Details:

- Data is stored in the "inquiries" collection in the MongoDB database.

Business Rules and Processes:

- Admin credentials are securely verified against stored data.
- Access is granted upon successful authentication.

Implemented:

Implementation Strategy:

- Frontend developed using the React.js framework.
- Backend developed using Node.js with Express.js framework.

Sample Code:

Chart.js - v4.4.2

```
const config = {
  type: 'bar',
  data: data,
  options: {
    scales: {
      y: {
        beginAtZero: true
      }
    },
  },
};
```

Inquiry

The screenshot shows a web-based application titled "PROJECT OPEN X" with a sub-page "Inquiry". The left sidebar includes links for Dashboard, PROJECT OPEN X (with sub-links for Inquiry, Get in touch, Join our team, Channel partner, Contact Us, and Profile), and a search bar. The main content area displays a table of inquiries with columns for Name, Email, Phone, Interest of user, Status, and Action. The table contains 10 rows of sample data. At the bottom, there are pagination controls for "Rows per page: 10" and "1-10 of 30". The system status bar at the bottom right shows "10:46 AM 02-04-2024".

Name	Email	Phone	Interest of user	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Hello I am Mihir Patel	initiated	
Manan Patel	manvaghasiya882@gmail.c...	07284947282	Hello I am Manan	initiated	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	
Manan	manvaghasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	completed	
Kartik	kartik@gmail.com	8892356123	hi hello	completed	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Lorem Ipsum is simply dummy text of the printing a...	initiated	
Manan	manvaghasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	no-answer	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	

Description:

- User all Inquiries here, Admin can manage each user's inquiry and change their status using this feature.

Input Field Mapping:

Name (Input field) → name (Database field)

Email (Input field) → email (Database field)

Phone (Input field) → phone (Database field)

Interest (Input field) → interest (Database field)

Entry Date (Input fields) → day, month, year (Database fields)

Full message popup

The screenshot shows a web browser window with multiple tabs open. The active tab is titled 'PROJECT OPEN X' and contains an 'Inquiry' section. A modal window titled 'Full Message' is displayed over the main content. The modal contains a paragraph of placeholder text (Lorem ipsum) and a table with 8 rows of inquiry data. The table has columns for Name, Email, Phone, Interest of user, Status, and Action. The status for most entries is 'no-answer'. The action column contains red trash can icons.

Name	Email	Phone	Interest of user	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Hello I am Mihir Patel	initiated	
Manan Patel	manvaghhasiya882@gmail.c...	07284947282	Hello I am Manan	no-answer	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	
Manan	manvaghhasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	completed	
Kartik	kartik@gmail.com	8892356123	hi hello	completed	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Lorem Ipsum is simply dummy text of the printing a...	initiated	
Manan	manvaghhasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	no-answer	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	

Search

The screenshot shows a web browser window with multiple tabs open. The active tab is titled 'PROJECT OPEN X' and contains an 'Inquiry' section. A search bar at the top right of the table header contains the text 'no-'. The table below displays 8 rows of inquiry data, identical to the one in the previous screenshot. The status for most entries is 'no-answer'. The action column contains red trash can icons.

Name	Email	Phone	Interest of user	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	no-answer	
Manan Patel	manvaghhasiya882@gmail.c...	07284947282	Hello I am Manan	no-answer	
Manan	manvaghhasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	no-answer	
AAAA	aaaaabbbb@gmail.com	07284947282	Hello	no-answer	
Mihir Patel	mihirpatel6pg6@gmail.com	7284947282	hi hello	no-answer	
Nirav	nirov@gmail.com	7284947282	Hello	no-answer	
Mihir Patel	mihirpatel6pg6@gmail.com	7284947282	Hello	no-answer	
Rahul Patel	rahul2001@gmail.com	6951525665	Hello I am rahul	no-answer	

PDF Viewer

The screenshot shows a web application interface titled "PROJECT OPEN X". On the left, there is a sidebar with navigation links: Dashboard, PROJECT OPEN X (selected), Inquiry, Get in touch, Join our team (highlighted in blue), Channel partner, Contact Us, and Profile. The main content area is titled "Join Our Team" and displays a table of four team members:

Name	Email	Phone	Apply For	Resume	Comment	Status	Action
Yash Thanki	yash05@gmail.com	9897285036	Others	View PDF	Hello hi	Pending Review	Delete
Krunal	krunal@gmail.com	6589654569	Tele Caller	View PDF	good	Shortlisted	Delete
Mihir	mihir@gmail.com	9958516854	Administration	View PDF	Thanks Your	Shortlisted	Delete
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Administration	View PDF	Thanks Your	On Hold	Delete

At the bottom right of the table, there are buttons for "Rows per page: 10", "1-4 of 4", and navigation arrows. The status bar at the bottom shows "10:47 AM 02-04-2024 ENG IN".

The screenshot shows a PDF document titled "Pink Simple Profile Resume" viewed in a browser. The resume is for Mihir Patel. It includes a profile picture, contact information (Email: mihirpatel6pg6@gmail.com, Phone: +91-7284947282, Date: Feb 09, 2001), education details (Master of Computer Applications from GLS University and Bachelor of Computer Applications from Gujarat University), certificates (Flutter & Dart - The Complete Guide), career objective (To obtain an entry-level position in the IT field where I can utilize my technical skills and knowledge to contribute to the growth of the organization), technical skills (Languages: Flutter, Python, Django, OOPS, Android Development; Databases: MySQL, Firebase; Known Tools: VS Code, Android Studio, Eclipse), and project experience (GoBid and Food delivery app). The status bar at the bottom shows "10:47 AM 02-04-2024 ENG IN".

Description:

- This item is made for the higher department, The selected candidate's Resume can be viewed here when the PDF is uploaded from the front-end website

Input Field Mapping:

Choose File (Input field) → image (Database field)

Sample Code: PDF Viewer

```
import { pdfjs } from 'react-pdf';

const [pdfFile, setPdfFile] = useState(null);

// Display resume pdf
const showPdf = (pdf) => {
    window.open(`http://localhost:4500/files/${pdf}` , "_blank", "noreferrer");
};
```

Change Status

The screenshot shows a web application interface titled "PROJECT OPEN X". On the left, there is a sidebar with navigation links: Dashboard, PROJECT OPEN X (with sub-links: Inquiry, Get in touch, Join our team, Channel partner, Contact Us, Profile), and a search bar. The main content area is titled "Inquiry" and displays a table of user data. The columns include Name, Email, Phone, Interest of user, Status (dropdown menu), and Action (trash icon). A search bar and a toolbar with "Share", "Export", and "This week" buttons are at the top right of the main content area. The status dropdown menu for the first row shows options: initiated, hold, no-answer, completed, and received. The status for most users is "initiated". The bottom of the screen shows a Windows taskbar with various icons and system status.

Name	Email	Phone	Interest of user	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	initiated	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	hold	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Hello i am Mihir Patel	no-answer	
Manan Patel	manvaghasiya882@gmail.c...	07284947282	Hello i am Manan	completed	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	hi hello	received	
Manan	manvaghasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	initiated	
Kartik	kartik@gmail.com	8892356123	hi hello	hold	
Mihir Patel	mihirpatel6pg6@gmail.com	07284947282	Lorem Ipsum is simply dummy text of the printing a...	no-answer	
Manan	manvaghasiya882@gmail.c...	07284947282	Lorem Ipsum is simply dummy text of the printing a...	completed	

Description:

- Change user status shows the status of the user with which user the conversation is completed and who is on hold or special

Input Field Mapping:

Initiated (Input field) → initiated (Database field)

Hold (Input field) → hold (Database field)

No-answer (Input field) → no-answer (Database field)

Completed (Input field) → completed (Database field)

Received (Input field) → received (Database field)

Export CSV

The screenshot shows a web-based application interface. At the top, there's a navigation bar with several tabs and a search bar. Below the navigation is a sidebar with links like 'Dashboard', 'PROJECT OPEN X', 'Inquiry', 'Get in touch', 'Join our team', 'Channel partner', 'Contact Us', and 'Profile'. The main content area is titled 'Inquiry' and displays a table of data. The table columns include 'Name', 'Email', 'Phone', 'Interest of user', 'Status', and 'Action'. Each row represents an inquiry entry. At the bottom of the table, there are pagination controls for 'Rows per page' (set to 10) and '1-10 of 31'. In the top right corner of the main content area, there are buttons for 'Share', 'Export', and 'This week'. A red arrow points from the 'Search' input field to the 'Export' button.

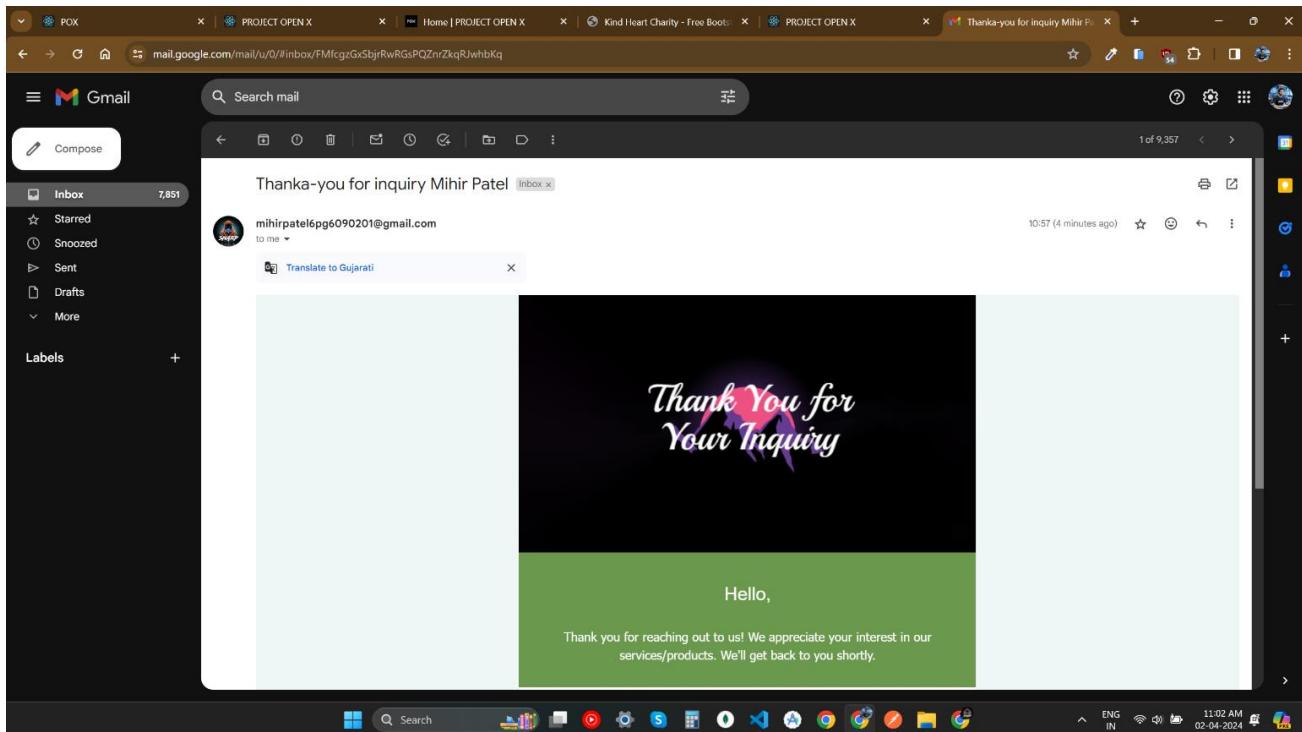
The screenshot shows a Microsoft Excel spreadsheet titled 'inquiries.csv'. The spreadsheet has a header row with columns labeled A through Z. The data starts with a row containing column headers: 'id', 'name', 'email', 'phone', 'interest', 'day', 'month', 'year', 'status', and 'v'. Subsequent rows contain data points from the application, such as 'Mihir Patel' with 'mihirpatel@pg6@gmail.com' and '07284947282'. The 'status' column often contains values like 'initiated', 'no-answer', or 'completed'. The 'v' column is mostly empty or contains '0'. The Excel ribbon at the top includes tabs for Home, Insert, Page Layout, Formulas, Data, Review, View, and Help. The status bar at the bottom indicates 'ENG IN' and the date '03-04-2024'.

Admin Profile

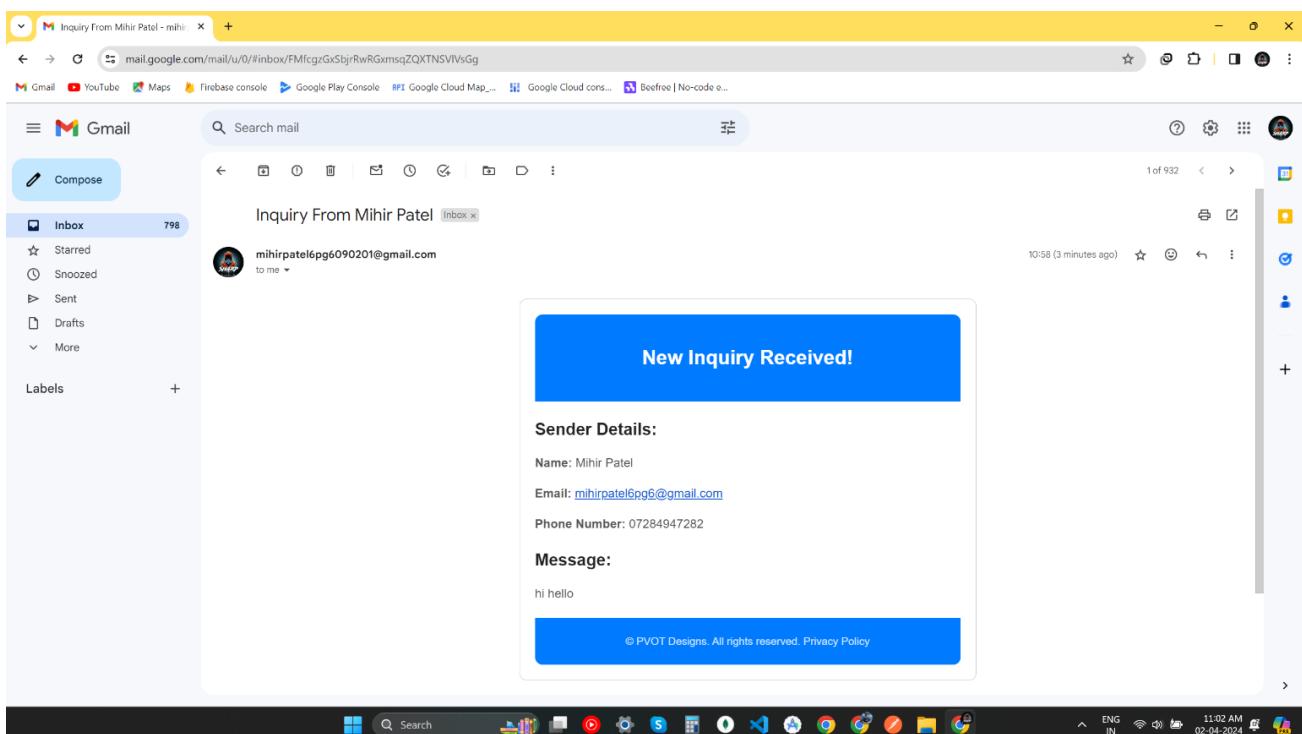
The screenshot shows a web browser window for 'PROJECT OPEN X' on the address bar. The main content area displays a 'Profile' form with fields for First Name (Mihir), Last Name (Patel), Email (mihir@gmail.com), and Phone (7284947282). Below the form, a sub-modal titled 'Edit email' is open, showing the current email value 'mihir@gmail.com'. At the bottom right of the sub-modal are 'CANCEL' and 'UPDATE' buttons.

This screenshot is identical to the one above, but the 'Email' field in the 'Edit email' sub-modal is highlighted with a blue border, indicating it is the active input field.

Thanks, Email

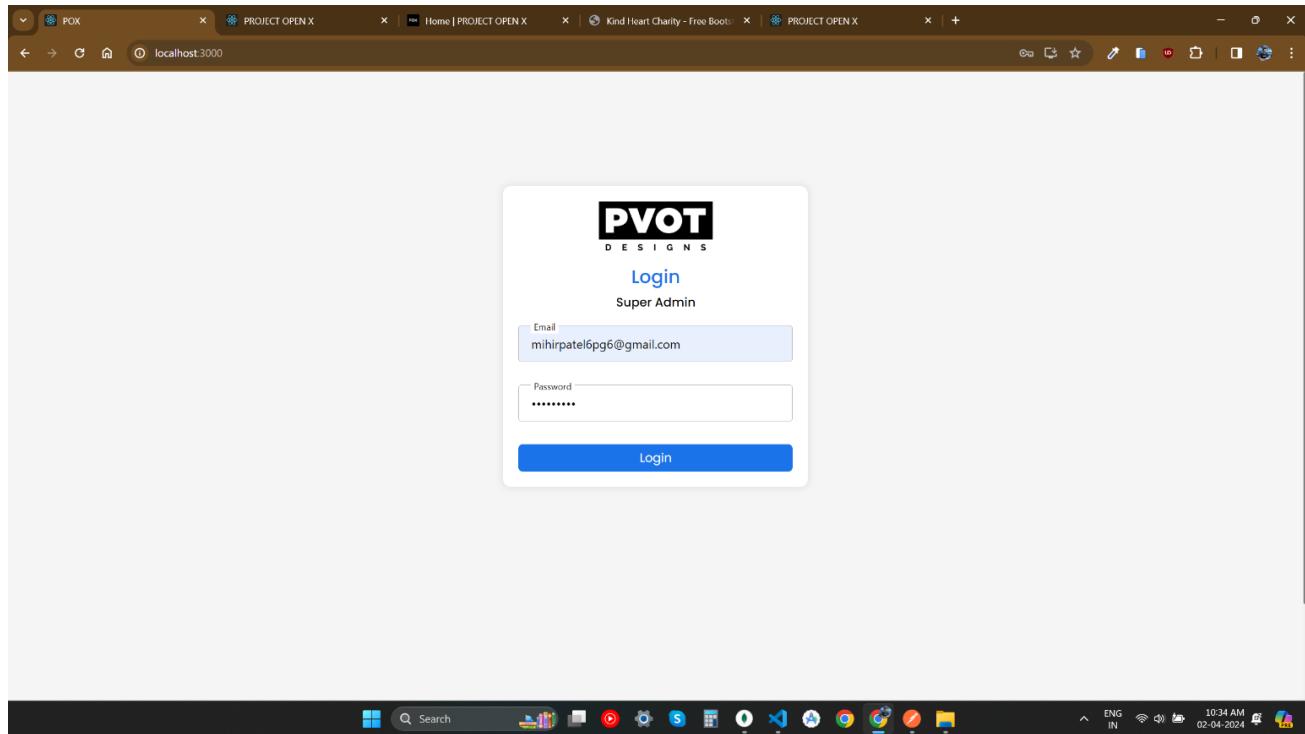


Received Email



Super Admin

Login Page



Description:

- Super admin login page, log in using email ID and password

Dashboard

The screenshot shows the 'Dashboard' page of a web application. The header bar includes tabs for 'POX', 'PROJECT OPEN X', 'Home | PROJECT OPEN X', 'Kind Heart Charity - Free Boots!', and another 'PROJECT OPEN X'. The main content area has a dark header with the 'PVOT DESIGNS' logo and a search bar. On the left, a sidebar lists 'Dahsboard' and 'Admin'. The central dashboard features three cards: 'Total Admins' (2), 'Active' (1), and 'Inactive' (1). Below these are sections for 'Recent Activity' and a table of user data. At the bottom, there are 'Logout' and 'Dark Mode' buttons.

Name	Email	Company Name	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	Google	inactive	
Yash Thanki	fakeid.com.net@gmail.com	ibm	active	

Dark Mode

The screenshot shows the same 'Dashboard' page but in dark mode. The background is dark, and the UI elements are styled accordingly. The sidebar, cards, and table rows have a lighter color scheme. The 'Dark Mode' button at the bottom is now in the 'on' position.

Name	Email	Company Name	Status	Action
Mihir Patel	mihirpatel6pg6@gmail.com	Google	inactive	
Yash Thanki	fakeid.com.net@gmail.com	ibm	active	

Description:

- By using super admin, we can manage admin data.
- We can generate a new admin and send him his ID password
- We can edit the profile of the admin and also delete it
- You can also switch this super admin panel to night mode or light mode

Business Rules and Processes:

Super Admin credentials are securely verified against stored data.

Access is granted upon successful authentication.

Implemented:

Implementation Strategy:

- Frontend developed using the React.js framework.
- Backend developed using Node.js with Express.js framework.
- MongoDB is used as the database and Authentication is handled using JWT tokens.

To Be Implemented in Future:

Future Implementation Strategy:

- Enhance form validation and error handling.
- Implement role-based access control for the admin panel.
- Integrate email notification system for admin alerts.

Toggle between night mode or light mode

Sample Code:

```
useEffect(() => {
  const $sidebarToggle = $(".sidebar-toggle");
  const $sidebar = $("nav");
  let getStatus = localStorage.getItem("status");
  if (getStatus && getStatus === "close") {
    $sidebar.addClass("close");
  }
  $sidebarToggle.on("click", () => {
    $sidebar.toggleClass("close");
    const status = $sidebar.hasClass("close") ? "close" : "open";
    localStorage.setItem("status", status);
  });
  return () => {
    $sidebarToggle.off("click");
  };
}, [])
```

Admin Registration

The screenshot shows a dark-themed web application interface. On the left, there's a sidebar with 'PVOT DESIGNS' logo, 'Dashboard', 'Admin' (selected), 'Logout', and 'Dark Mode' toggle. The main area has a title 'Admin Registration Form'. It contains fields for First Name (Mihir), Last Name (Patel), Email (mihirpatel6pg6@gmail.com), Phone Number (+1 (885) 421-2333), Company Name (Google), Company Address (USA), Country (United States), State (Alaska), City (College), and a Message input (Hello Mihir). A blue 'Add Admin' button is at the bottom. The browser address bar shows 'localhost:3000/addadmin'. The taskbar at the bottom includes icons for various applications like File Explorer, Edge, and Google Chrome.

Description:

- The super admin will fill out this form and an email will be sent to the admin with his Email-ID password

Sample Code:

```
const datas = await fetch("http://localhost:4600/validatedetail", {  
    method: "post",  
    body: JSON.stringify({ email }),  
    headers: {  
        "Content-Type": "application/json"  
    }  
})
```

API

POX PROJECT OPEN X Contacts Us | PROJECT OPEN X Kind Heart Charity - Free Boots PROJECT OPEN X

localhost:3000/addadmin

PVOT DESIGNS

Dahsboard Admin Logout Dark Mode

Admin Registration Form

First Name: Mihir

Email: mihirpatel6pg6@gmail.com

Company Name:

Country: India

State: Gujarat

City: Mahalaxmi temple, Vatva, Ah

Message:

Add Admin

Puducherry
Telangana
Odisha
Rajasthan
Punjab
Uttarakhand
Andhra Pradesh
Nagaland
Lakshadweep
Himachal Pradesh
Delhi
Uttar Pradesh
Andaman and Nicobar Islands
Arunachal Pradesh
Jharkhand
Karnataka
Assam
Kerala
Jammu and Kashmir
Gujarat

POX PROJECT OPEN X Contacts Us | PROJECT OPEN X Kind Heart Charity - Free Boots PROJECT OPEN X

localhost:3000/addadmin

PVOT DESIGNS

Dahsboard Admin Logout Dark Mode

Admin Registration Form

First Name: Mihir

Last Name: Patel

Email: mihirpatel6pg6@gmail.com

Phone Number: +91

Company Name:

Country: India

State: Gujarat

Message:

Add Admin

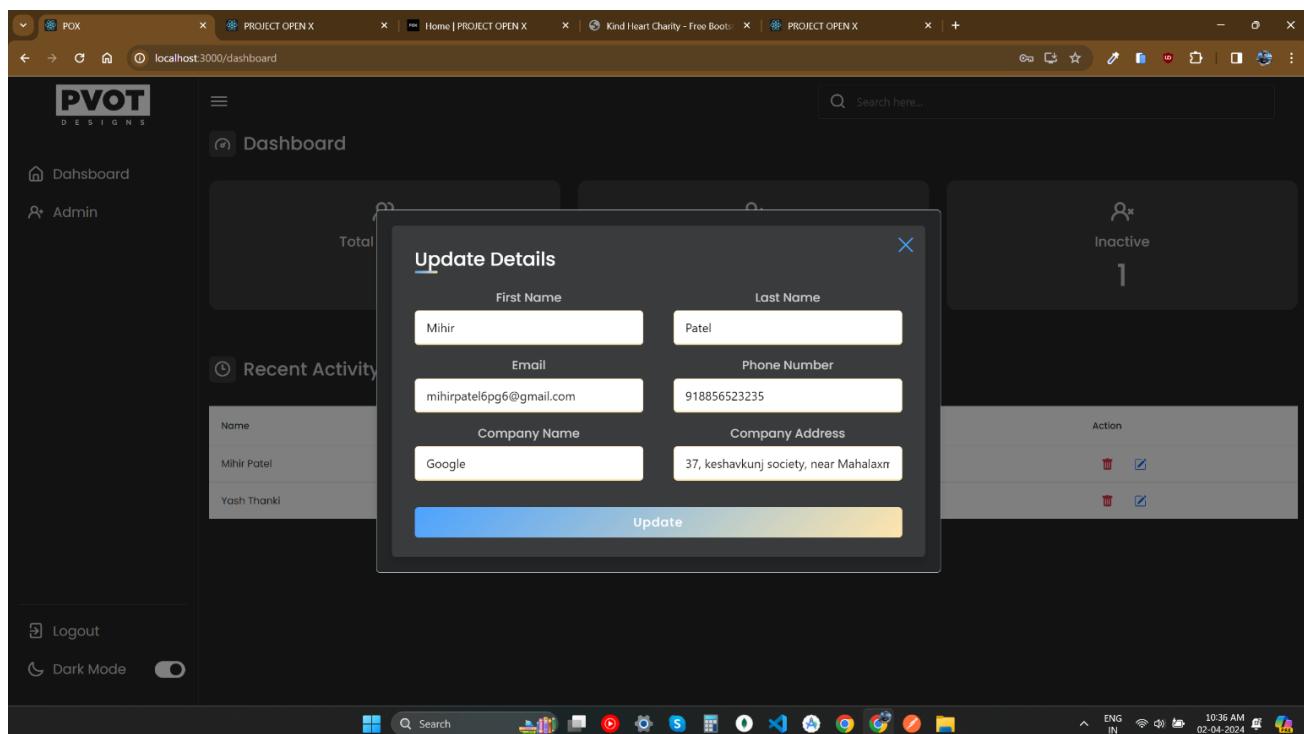
+91
India +91
Argentina +54
Argentina +54 (11)

Description: We are using different APIs like country code picker, also country-state-city select API

Sample Code:

```
import PhoneInput from 'react-phone-input-2';
const config = {
  cUrl: 'https://api.countrystatecity.in/v1/countries',
  cKey: 'cnNiS2lrQVhzZEJMV2JGanc4MHRlEhoRzBzWkZNc1Qx0GtQUmpScQ=='
};
```

Update Admin Detail



Testcase

Admin Login

Test Cases								
Reference Document:	Real Estate Management System			To be tested on O.S.:	Windows 11			
A version of the Test Case:				To be tested on Browser:	Google Chrome			
URL Detail:				Username/Pass word:	-			
Purpose:	Verify the Functionality of the Admin Login Page							
Pre-Condition:								
Pro Condition:								
Test Cases:	Procedure	Expected Result	Actual Result	Pass/ Fail	Remarks	Bug		
1	Type the Login URL in the Browser	The login page will be displayed	As expected, the result	Pass	-	-		
2	Enter your Email and Password & click the login button	Authenticated admin will have access to the admin panel	As expected, the result	Pass	-	-		
3	Click on Forget Password link	Forget password page should be displayed	As expected, the result	Pass	-	-		
4	Send email to registered email id	Admin receives reset password link on register email	As expected, the result	Pass	-	-		
5	Click on the reset link in the email	Reset password and login using a new password	As expected, the result	Pass	-	-		

Admin Registration

Test Cases								
Reference Document:	Real Estate Management System			To be tested on O.S.:	Windows 11			
The version of the Test Case:				To be tested on Browser:	Google Chrome			
URL Detail:				Username/Password:	-			
Purpose:	Verify the Functionality of the Admin Registration Page							
Pre-Condition:								
Pro Condition:								
Test Cases:	Procedure	Expected Result	Actual Result	Pass/Fail	Remarks	Bug		
1	Type Registration URL in Browser	The registration page should be displayed	As expected, the result	Pass	-	-		
2	Fill Registration Form & click on the registration button	The record should be added to the super admin database and an email was sent with id and password to the admin	As expected, the result	Pass	-	-		
3	Without Fill Registration Form & click on the registration button	Form Validation should be show	As expected, the result	Pass	-	-		
4	Send Email	Email sends a registered email With email ID and password	As expected, the result	Pass	-	-		
5	Admin Login using default id password or create new id & password	Admin create new id & password by clicking on create new password link receive on email	As expected, the result	Pass	-	-		
6	Login into Admin Panel	Login using new password	As expected, the result	Pass	-	-		

Forgot Password

Test Cases								
Reference Document:	Real Estate Management System			To be tested on O.S.:	Windows 11			
The version of the Test Case:				To be tested on Browser:	Google Chrome			
URL Detail:				Username/Password:	-			
Purpose:	Verify the Functionality of the Forgot Password Page							
Pre-Condition:								
Pro Condition:								
Test Cases:	Procedure	Expected Result	Actual Result	Pass /Fail	Remarks	Bug		
1	Without entering the email id click on the submit button	Validation should be displayed	As expected, the result	Pass	-	-		
2	Fill email field and click on the submit button	The reset password link should be sent via email	As expected, the result	Pass	-	-		
3	Email sends	Forgot password link sent to the registered email ID	As expected, the result	Pass	-	-		
4	Click on the reset password link	Open the reset password page	As expected, the result	Pass	-	-		
5	Set new password/conform Password	Now login using the new password	As expected, the result	Pass	-	-		

Admin Panel

Test Cases								
Reference Document:	Real Estate Management System			To be tested on O.S.:	Windows 11			
The version of the Test Case:				To be tested on Browser:	Google Chrome			
URL Detail:				Username/Password:	-			
Purpose:	Verify the Functionality of the Admin Panel							
Pre-Condition:								
Pro Condition:								
Test Cases:	Procedure	Expected Result	Actual Result	Pass /Fail	Remarks	Bug		
1	Inquiry Form	Admin manage, change status Also, read messages	As expected, the result	Pass	-	-		
2	Search	Search by keyword, Available on the data table	As expected, the result	Pass	-	-		
3	Export CSV	Download CSV as per requirement	As expected, the result	Pass	-	-		
4	Manage admin profile	Admin can update his profile	As expected, the result	Pass	-	-		
5	Visual representation of user data	showcasing comprehensive insights through graphs	As expected, the result	Pass	-	-		

MIS Report

The MIS report provides an overview of key performance indicators (KPIs) and operational metrics for the REMS platform. It highlights trends, benchmarks, and areas of improvement to support informed decision-making and optimize platform performance.

Key Performance Indicators:

User Engagement:

- Active Users: Monthly active users (MAU) increased by 20% compared to the previous quarter, reaching a total of 25,000 users.
- Session Duration: Average session duration increased by 12%, indicating higher user engagement with platform features such as property listings, inquiries, and transactions.

Property Listings:

- Most Popular Property Types: The top three most popular property types include residential apartments, commercial spaces, and vacant land.
- Property Availability: 95% of listed properties are marked as available for sale or rent, ensuring updated and relevant information for users.

Transaction Volume:

- Property Inquiries: Total property inquiries increased by 18% compared to the previous quarter, demonstrating heightened interest and activity in the real estate market.
- Successful Transactions: Successful transactions, including property sales and rentals, grew by 15%, indicating a thriving marketplace facilitated by the REMS platform.

Customer Satisfaction:

- Customer Ratings: Customer satisfaction ratings improved from an average of 4.2 to 4.5 out of 5, reflecting high levels of satisfaction with platform usability, property search experience, and customer support.

User Feedback:

- Positive feedback from users regarding the ease of finding properties, responsiveness of property owners/agents, and overall user experience.

The MIS report showcases positive trends in user engagement, property listings, transaction volume, and customer satisfaction on the REMS platform.

DSS Report

The DSS report provides actionable insights and recommendations to support decision-making processes within the REMS project. It addresses key challenges and opportunities identified through data analysis and offers strategic guidance for optimizing platform performance and user engagement.

Key Insights:

User Engagement Optimization:

- Recommendation: Implement gamification elements, such as challenges, badges, and rewards, to incentivize user engagement and promote active participation.
- Action Plan: Launch gamified challenges and competitions aligned with property search and transaction goals, offering rewards and recognition for user achievements and milestones.

Content Personalization:

Recommendation: Enhance content personalization algorithms to deliver more targeted and relevant property recommendations to users based on their preferences and behaviour.

Action Plan: Utilize machine learning algorithms to analyse user interaction data and dynamically adjust property recommendations to match individual interests and preferences.

Community Building Initiatives:

- Recommendation: Expand community-building initiatives to foster deeper connections and engagement among users.
- Action Plan: Organize virtual events, webinars, and themed discussion forums to facilitate peer support, knowledge sharing, and collaborative decision-making within the REMS community.

Mobile App Optimization:

- Recommendation: Improve mobile app performance and usability to enhance the mobile user experience.
- Action Plan: Conduct usability testing, optimize app design and navigation, and implement performance enhancements to ensure a seamless and responsive mobile experience for users.

Data-driven Decision-making:

- Recommendation: Establish a data-driven culture within the project team, leveraging analytics and insights to guide strategic decision-making.
- Action Plan: Provide training and resources on data analysis tools and techniques, encourage cross-functional collaboration, and incorporate data-driven KPIs into project planning and evaluation processes.

The DSS report offers actionable recommendations to address key challenges and capitalize on opportunities for enhancing platform performance and user engagement within the REMS project.

Learning and Work Experience

Technical Skills Development:

- Proficiency in React.js for building dynamic user interfaces.
- Backend server applications using Node.js and Express.js.
- MongoDB for flexible data management.
- Integration of various APIs for enhanced functionality.

Project Management:

- Task management with Manual Tasks.
- Active participation in sprint planning and daily stand-ups.

Collaboration and Communication:

- Close collaboration with team members.
- Regular communication via Slack, email, and virtual meetings.

Problem-solving Skills:

- Effective resolution of technical challenges.
- Analytical thinking and debugging techniques.

Real-world Experience:

- Hands-on experience with projects.
- Interaction with end-users for feedback.

Adaptability and Flexibility:

- Quick adaptation to changing project requirements.
- Flexibility in switching between frontend and backend tasks.

Future Enhancements

Real-time Chat and Messaging Functionality:

- Integrate real-time chat functionality using WebSocket technology for instant communication.
- Enable users to send messages, share files, and engage in group chats with other users.
- Implement chatbots for automated customer support or to assist with common queries.

Enhanced User Personalization:

- Implement advanced user profiling techniques to offer personalized recommendations and content.
- Utilize machine learning algorithms to analyse user behaviour and preferences for tailored experiences.

Integration with Third-party Services:

- Expand integration capabilities by incorporating support for additional third-party services and APIs.
- Enable seamless interaction with popular platforms to enhance functionality and user engagement.

Enhanced Data Analytics and Reporting:

- Develop comprehensive data analytics and reporting features to provide actionable insights.
- Implement customizable dashboards and visualization tools for better data interpretation and decision-making.

Conclusion

In the dynamic landscape of real estate management, implementing an efficient Real Estate Management System (REMS) is indispensable. Through our REMS documentation, it's clear that such a system streamlines operations and transforms stakeholder interactions with real estate assets.

Streamlined Operations:

- REMS automates processes, enhancing decision-making and communication among stakeholders.
- It covers property listings, tenant management, financial analysis, and reporting, centralizing operations for real estate professionals.

Integration of Advanced Technologies:

- Leveraging AI, machine learning, and blockchain, REMS offers predictive insights, data security, and transparent transactions.
- These technologies enable organizations to adapt to market trends and capitalize on emerging opportunities.

Customer Satisfaction and Engagement:

- REMS prioritizes customer satisfaction through intuitive interfaces, personalized experiences, and real-time access to critical information.
- It fosters stronger relationships between landlords, tenants, investors, and property managers, enhancing trust and loyalty.

In conclusion, REMS implementation goes beyond technological adoption; it's a strategic imperative for real estate enterprises. By embracing REMS, organizations unlock agility, innovation, and profitability in an ever-evolving industry landscape.

References

MDN Web Docs: <https://developer.mozilla.org/>

W3Schools: <https://www.w3schools.com/>

Stack Overflow: <https://stackoverflow.com/>

GitHub: <https://github.com/>

NPM: <https://www.npmjs.com/>

Draw.io: <https://app.diagrams.net/>

Thank you