PANIMALAR ENGINEERING COLLEGE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

21CS1512 - SOCIALLY RELEVANT MINI PROJECT

TITLE : COLD CALL USING AI FOR SCHOOL ENQUIRY(C30)

GUIDE BY

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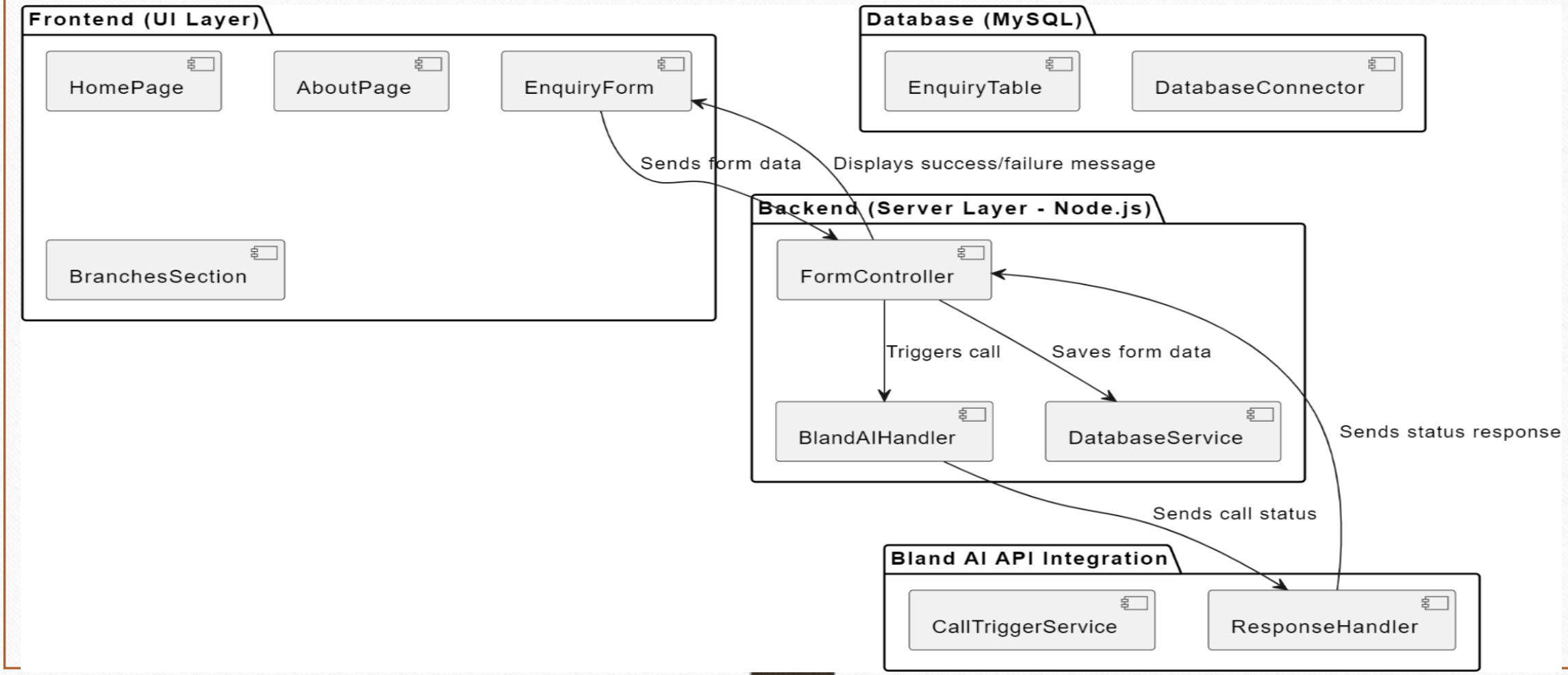
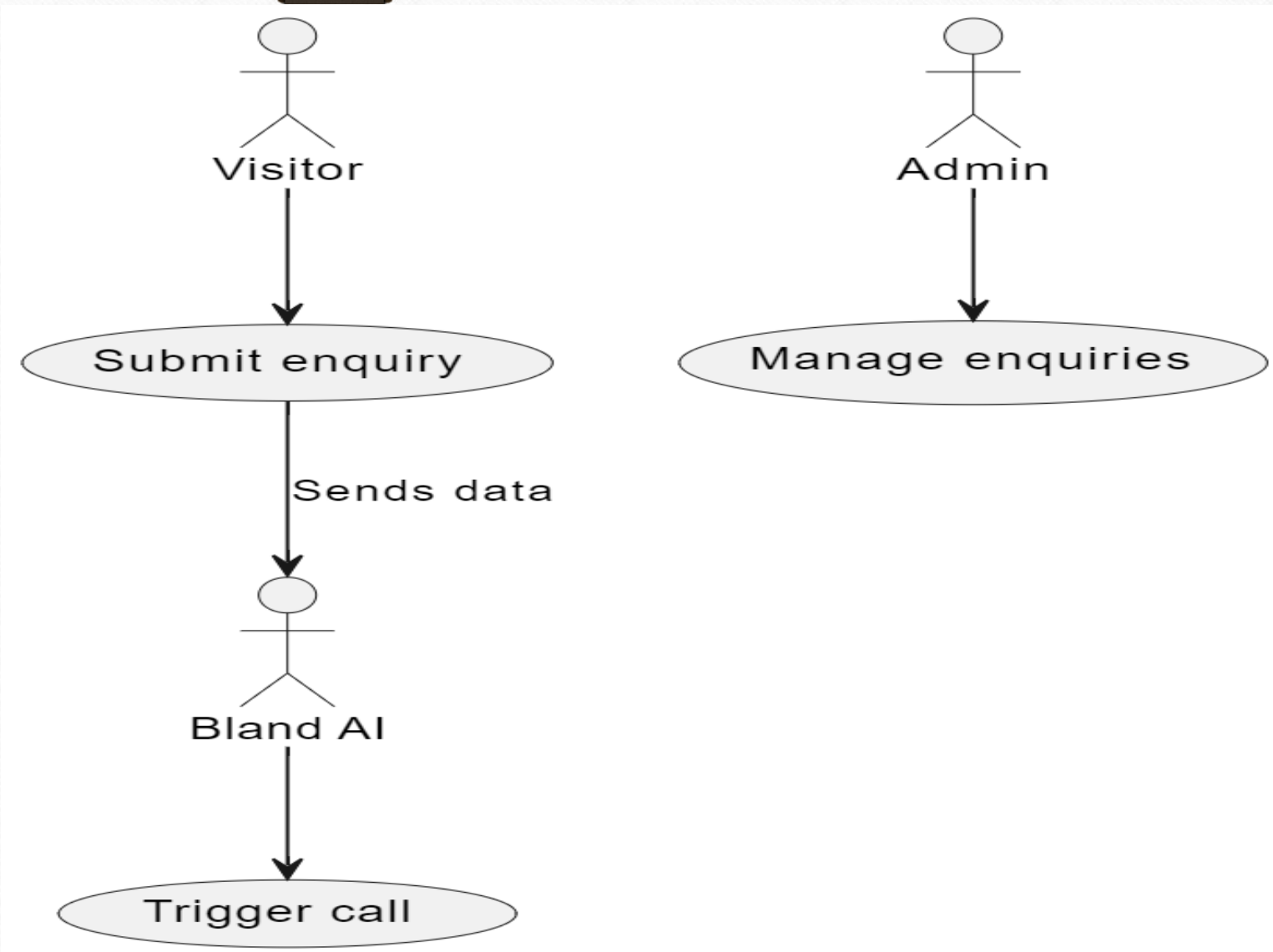
ABSTRACT

This project involves the development of a web-based enquiry management system designed to enhance communication and data management for educational institutions. The system features an interactive enquiry form that allows users to submit their details, including personal information and the purpose of their inquiry. Upon submission, the backend, powered by Node.js, validates the data and stores it securely in a MySQL database. The system integrates with Bland AI's conversational pathway to trigger automated phone calls for immediate follow-up, ensuring timely responses and fostering better engagement. Designed to be scalable, the architecture allows for future enhancements such as analytics and reporting tools, positioning the system as a comprehensive solution for modern enquiry management. Ultimately, this project aims to improve efficiency, reduce response times, and enhance user satisfaction in educational institutions.

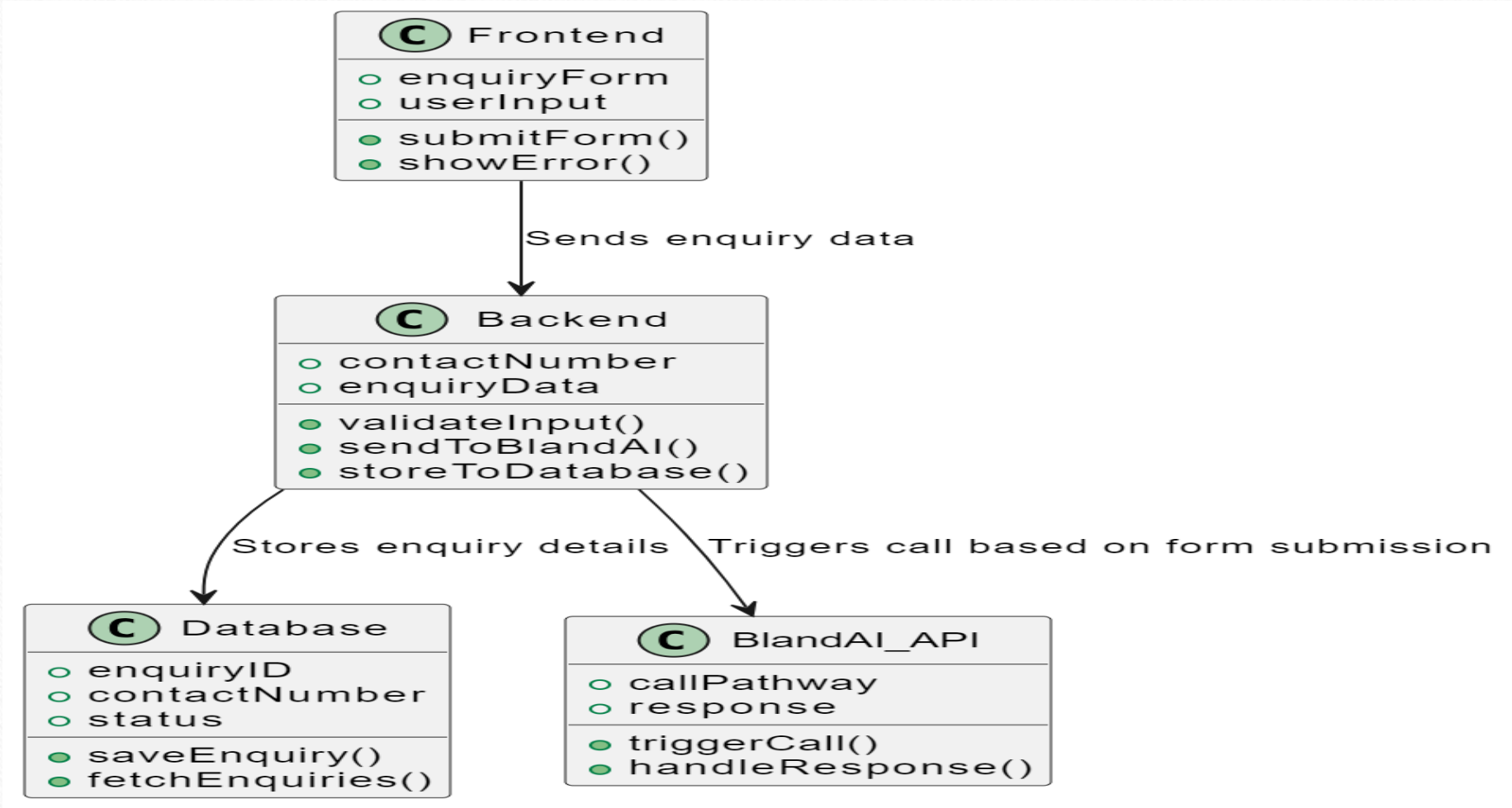
ARCHITECTURE DIAGRAM:



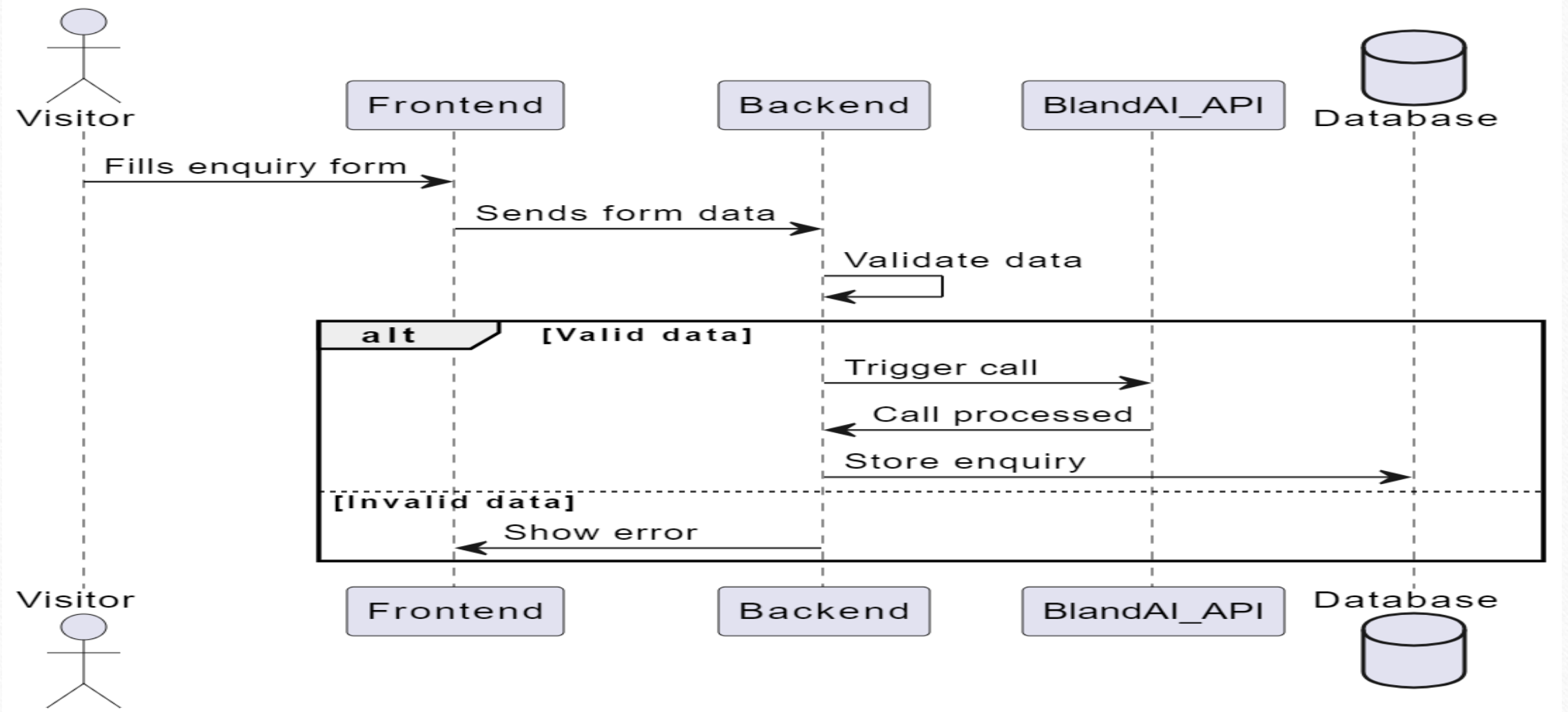
USE CASE DIAGRAM:



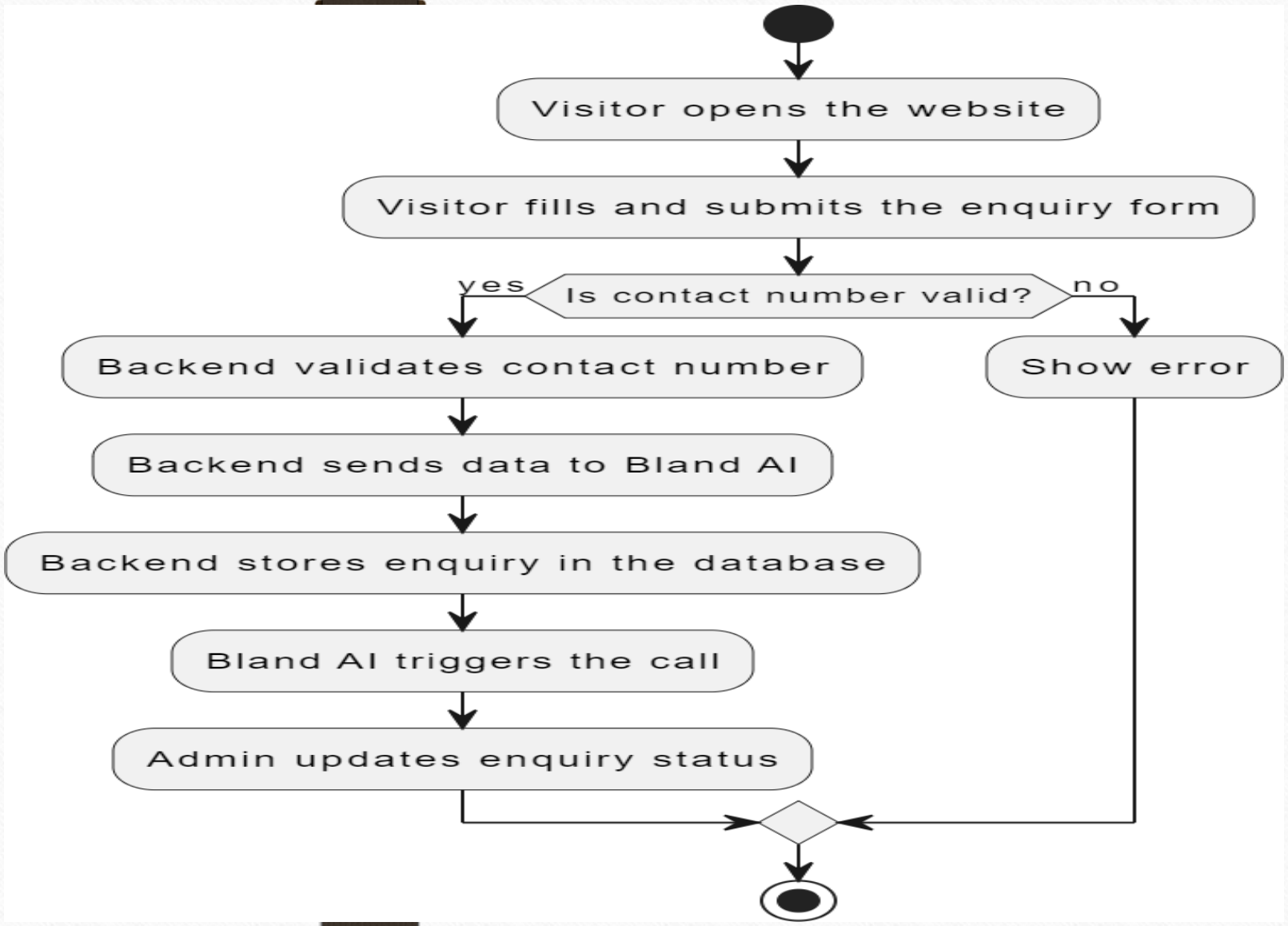
CLASS DIAGRAM:



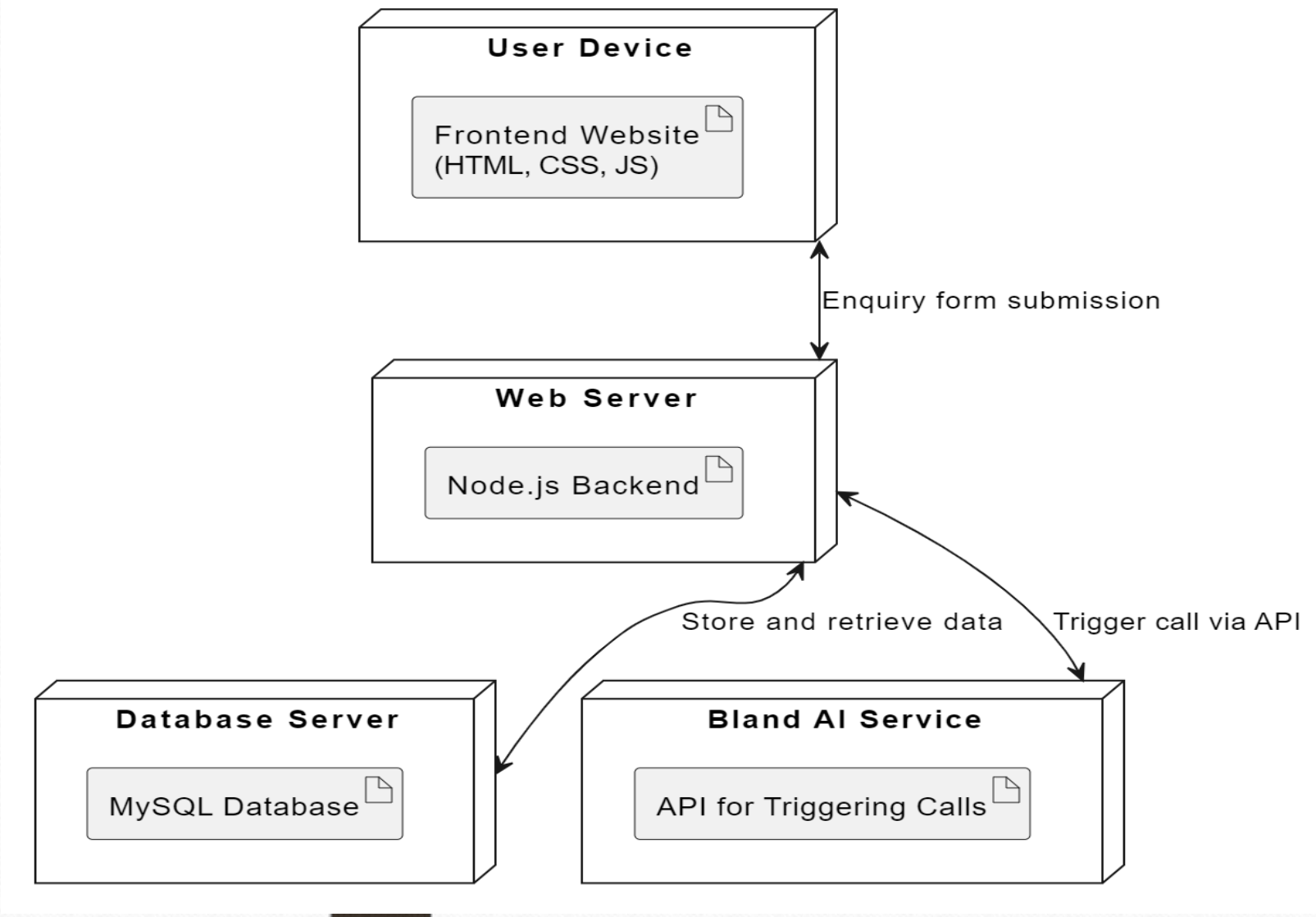
SEQUENCE DIAGRAM:



ACTIVITY DIAGRAM:



DEPLOYMENT DIAGRAM:



EXISTING SYSTEM

The existing system for managing student enquiries relies heavily on manual processes, such as paper forms and email communication. This approach leads to inefficiencies, data inaccuracies, and poor tracking of enquiries. Staff members are often overwhelmed by the volume of enquiries, resulting in slow response times and inconsistent follow-ups. Additionally, the lack of automation and analytics limits the ability to improve processes and understand enquiry trends. This underscores the need for a more efficient, automated solution to streamline the enquiry process and enhance user experience.

PROPOSED SYSTEM

The proposed system introduces a web-based enquiry form integrated with a backend system to streamline enquiry management. Key features include:

1. **User-Friendly Interface**: An intuitive form for easy submission of enquiries by prospective students and parents.
2. **Automated Call Trigger**: Automatic initiation of calls via Bland AI upon form submission for prompt communication.
3. **Real-Time Data Storage**: Secure storage of enquiries in a MySQL database for organized data management.
4. **Improved Follow-Up**: Tools for tracking and managing follow-ups on enquiries.
5. **Data Analytics**: Insights into enquiry trends to facilitate informed decision-making.

This system enhances efficiency and user experience, ensuring a responsive approach to managing enquiries.

MODULES USED

1.Frontend Module

1. **HTML/CSS/JavaScript**: For creating the user interface of the enquiry form.
2. **AJAX**: For asynchronous data submission to the backend.

2.Backend Module

1. **Node.js**: To handle server-side logic and API requests.
2. **Express.js**: For routing and managing HTTP requests.
3. **Body-Parser**: To parse incoming request bodies in middleware.
4. **CORS**: To enable cross-origin requests.

3.Database Module

1. **MySQL**: For storing and managing enquiry data.

4.API Integration Module

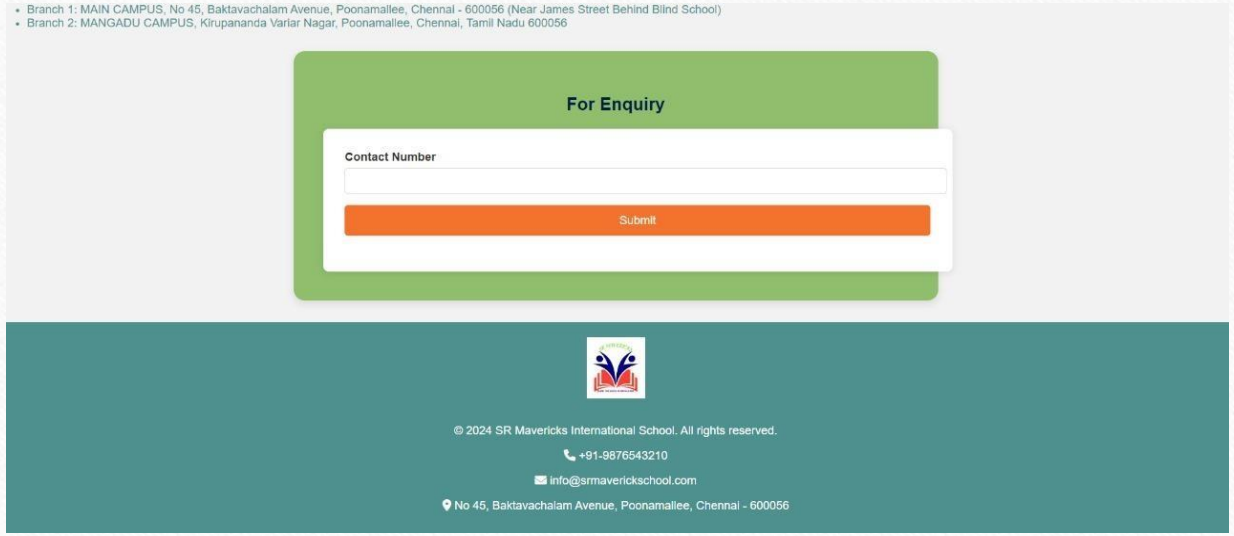
1. **Axios**: To handle API requests to Bland AI for call triggering.

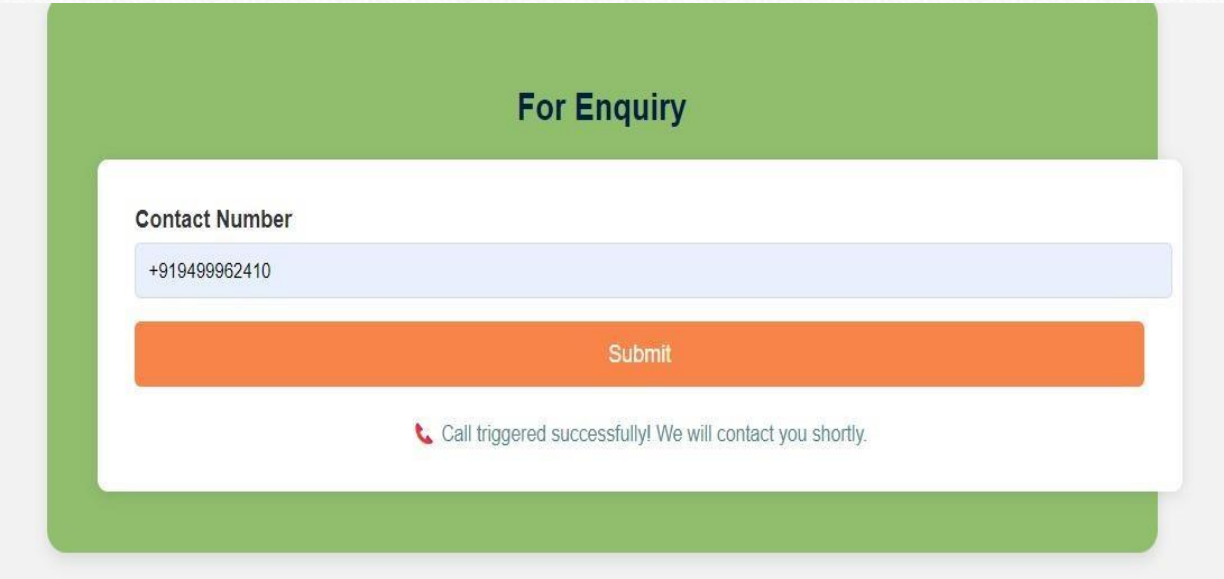
5.Validation Module

1. **Joi or Custom Validation Logic**: For validating user inputs in the enquiry form before submission.

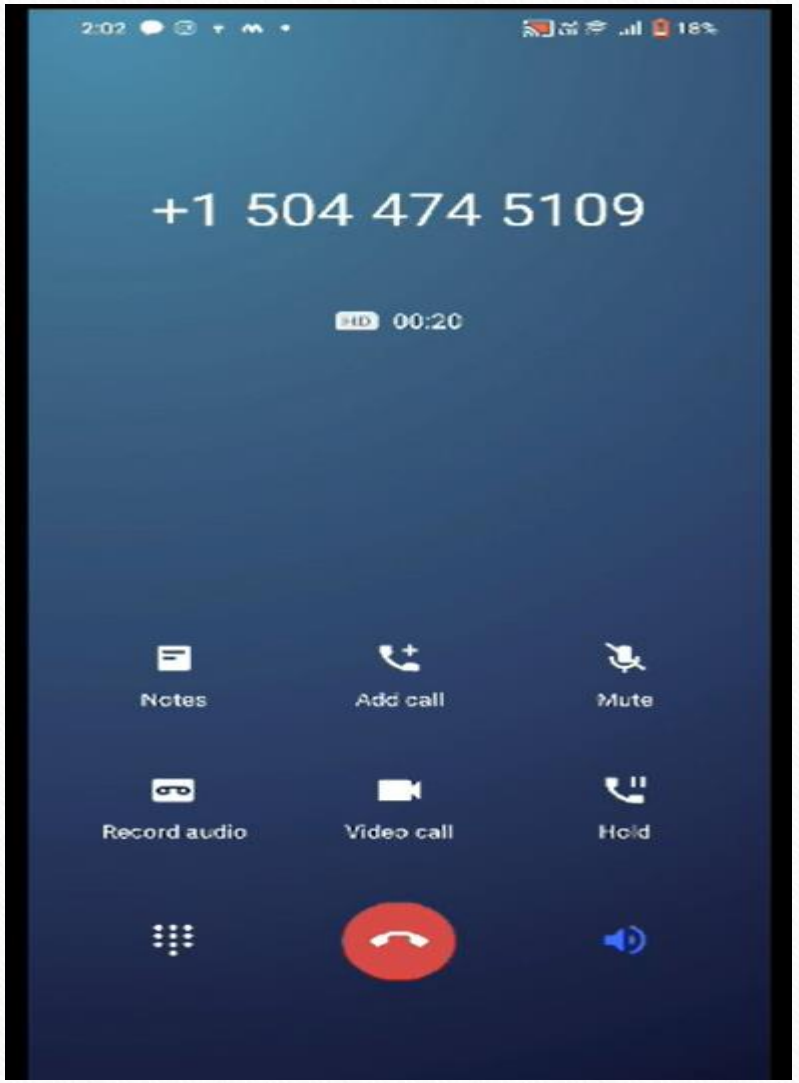
Each module works together to create a seamless experience from data collection to call initiation.

OUTPUT SCREENSHOTS:





DATA COLLECTION AND STORAGE:



Future Enhancements:

To further enhance performance and usability, the following features could be developed:

- **SMS/Email Notifications:** Keep users and admins informed.
- **Admin Dashboard:** Centralized management of enquiries and call analytics.
- **Call Scheduling:** Automated call planning based on user preferences.
- **Multilingual Support:** Broaden accessibility with multiple languages.
- **Advanced Error Monitoring:** Track and resolve system issues proactively.
- **Cloud Deployment:** Ensure high availability and scalability.
- **AI-Driven Insights:** Leverage data analytics for better engagement strategies.

These improvements will provide personalized experiences and help the system evolve into a comprehensive customer engagement platform.

CONCLUSION

In conclusion, this project successfully integrates a dynamic website for SR Mavericks International School, featuring essential components like an enquiry form, branch details, and informative sections. The backend, powered by Node.js and MySQL, ensures smooth data management, while Bland AI’s API facilitates efficient communication through automated call triggers. This system enhances user interaction, streamlines the enquiry process, and supports the school’s mission of providing seamless access to information and services.