

# **Project Documentation: "My College Tour"**

## **1. Introduction**

"My College Tour" is a web application developed in the domain of Edutech. It aims to assist students and visitors in navigating college campuses efficiently. The core functionality revolves around creating a virtual representation of college layouts and training a chatbot to provide navigation guidance within the campus.

## **2. Key Features**

### **a. College Layout Creation:**

- Institutions can log in to the application and add their college layout information.
- This includes specifying location names and the directional orientation (left, right, back, front) of each location.
- The layout information is saved and converted into the `intent.json` format.

### **b. Training with PyTorch Algorithm:**

- The `intent.json` file containing the layout information is used to train the chatbot.
- PyTorch algorithm is employed for training the chatbot model.

### **c. Navigation Assistance:**

- Users access the web application and initiate a tour.
- A chatbot interface guides the user through the navigation process within the college campus.
- The chatbot prompts the user for the institution name, current location, and desired destination.
- Based on the input, the chatbot provides step-by-step directions to reach the designated location.

### **3. User Flow**

#### **a. Institution Login:**

- Institutions log in to the web application.
- They input and save their college layout information.

#### **b. User Interaction:**

- Users access the application and click on the "Go on Tour" button.
- The chatbot interface opens, initiating the navigation process.

#### **c. Chatbot Interaction:**

- The chatbot asks the user to specify the institution they belong to.
- After receiving input, the chatbot prompts for the user's current location.
- The user provides the current location information.
- The chatbot then asks for the destination location.
- Based on the provided information, the chatbot calculates and provides navigation instructions.

### **4. Technologies Used**

#### **Frontend:**

- HTML, CSS, JavaScript

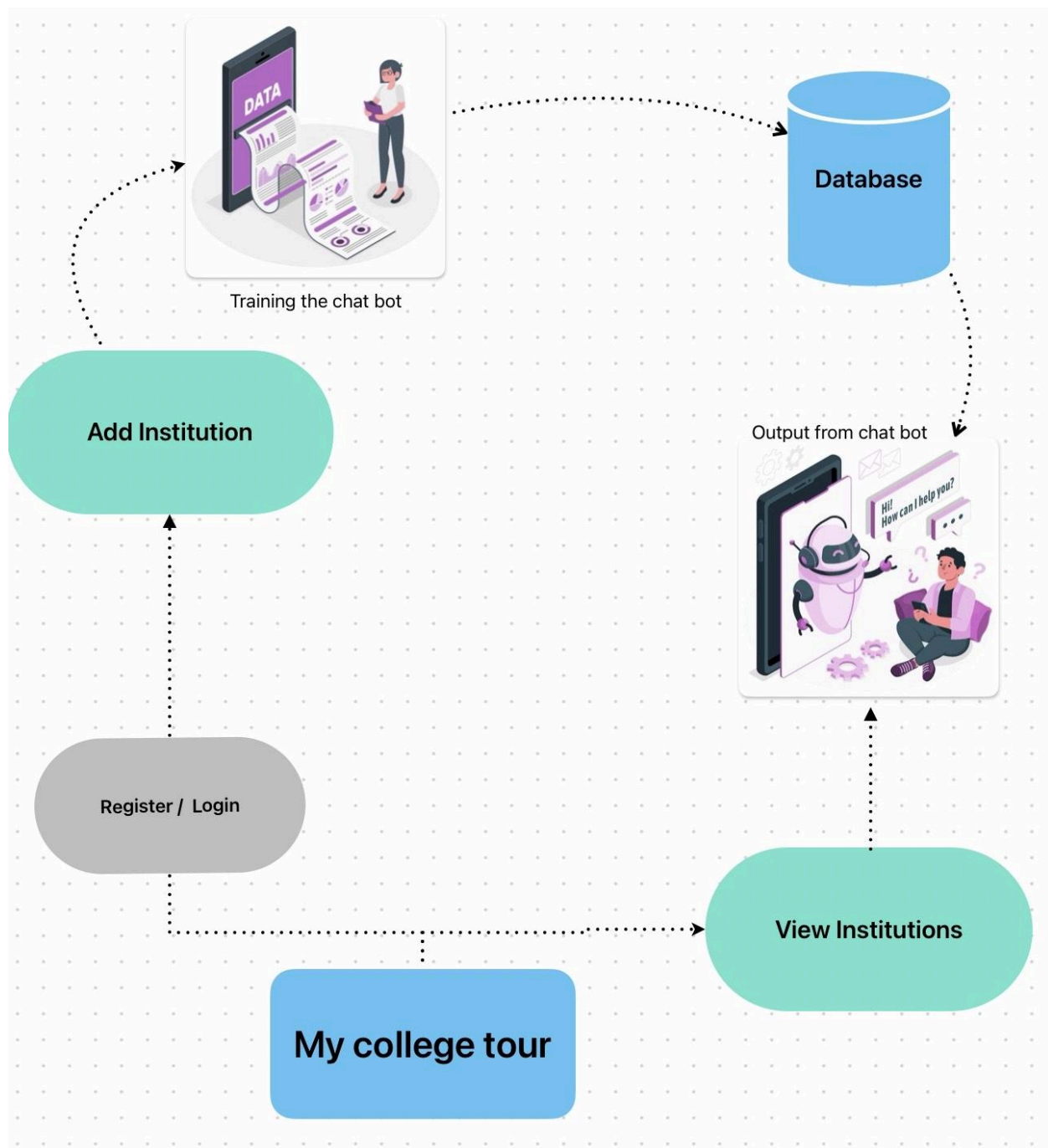
#### **Backend:**

- Python
- PyTorch for machine learning
- Web framework Flask

#### **Database:**

- Firebase Database system

## 5. Architecture/Work-Flow



## 6. Future Enhancements

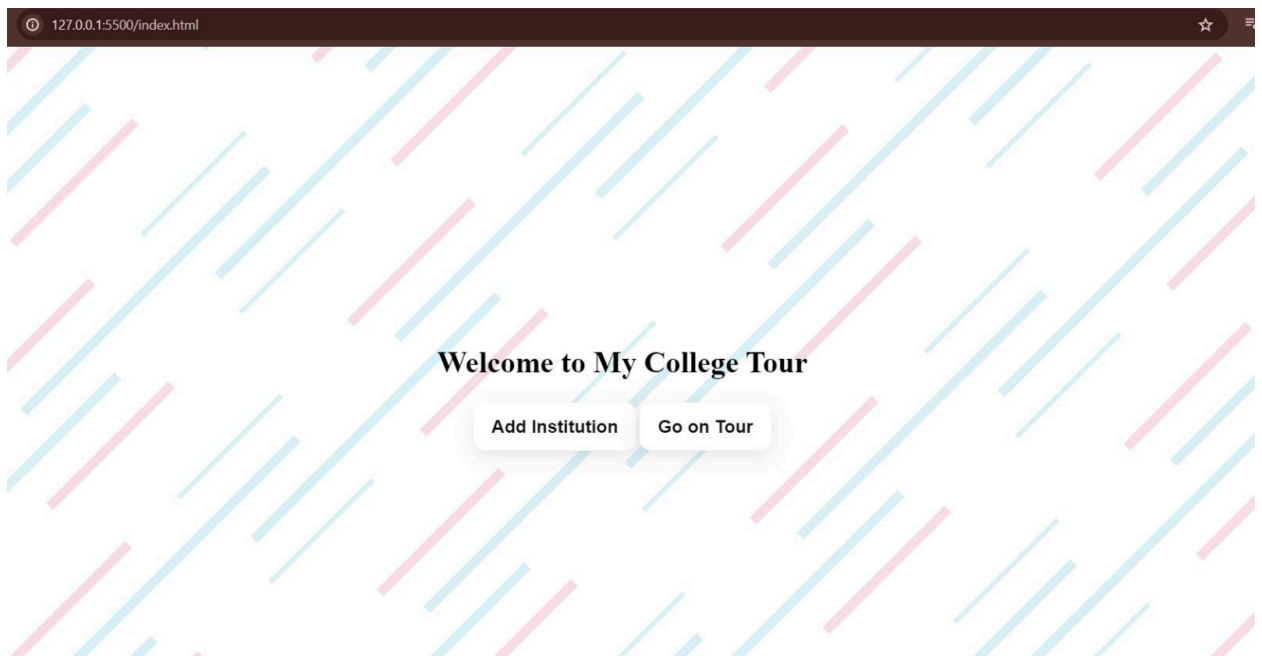
- Integration of real-time location tracking for more accurate navigation.
- Adding support for multiple languages in the chatbot interface.
- Implementing a mobile application version for enhanced accessibility.

## 7. Conclusion

"My College Tour" provides a user-friendly solution for navigating college campuses effectively. By combining college layout visualization with chatbot assistance, the application offers a seamless experience for students and visitors alike. With ongoing development and enhancements, it aims to become an indispensable tool in the domain of educational technology.

## 8. Screen Interface

### a. Homepage



### b. Register and Login Page

MY COLLEE TOUR

Full name

Email

New Password

The Best Song Ever

Milk Before Cereal? ( Yes | No )

Login

Register

MY COLLEE TOUR

yep

test123@gmail.com

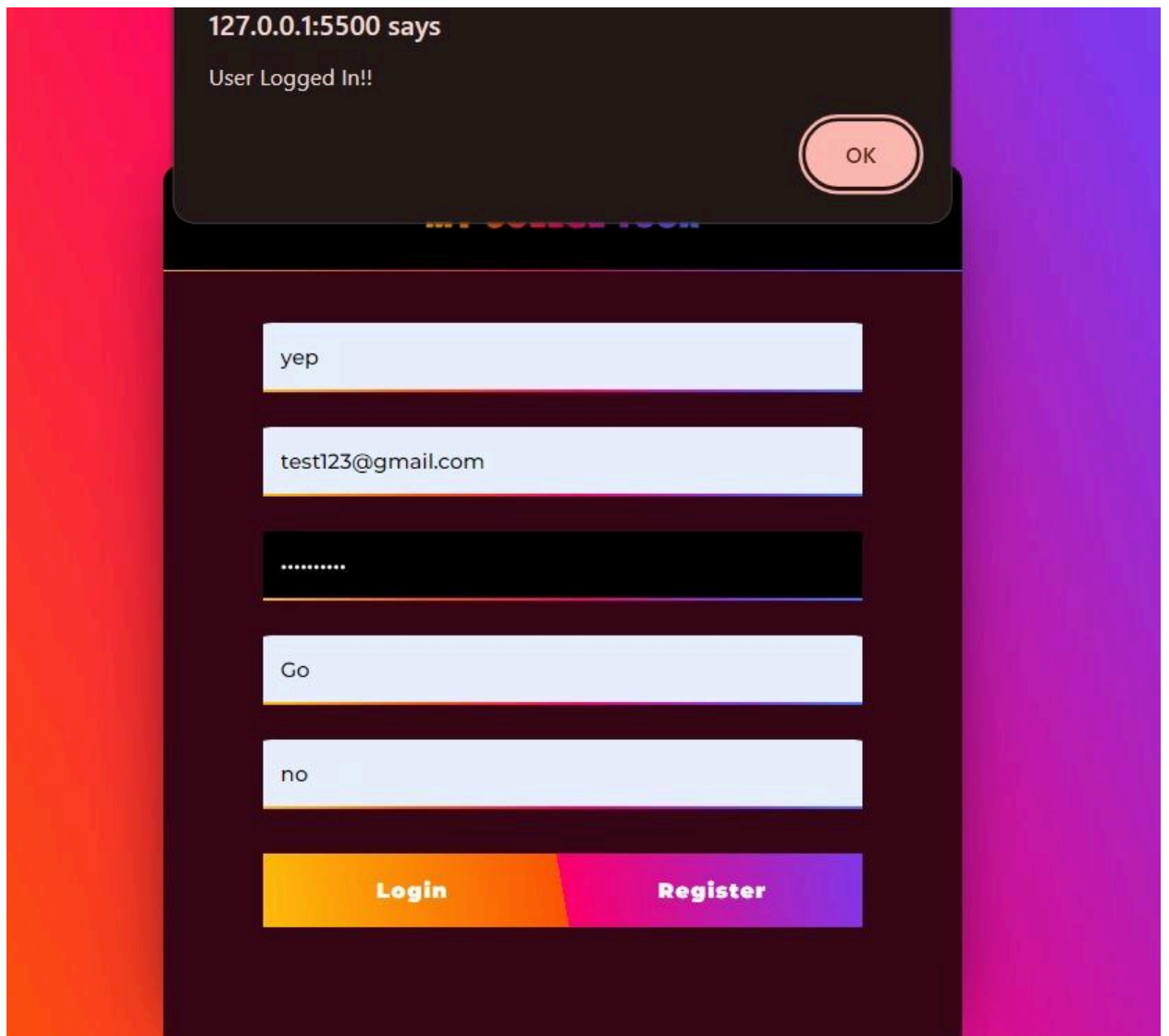
\*\*\*\*\*

Go

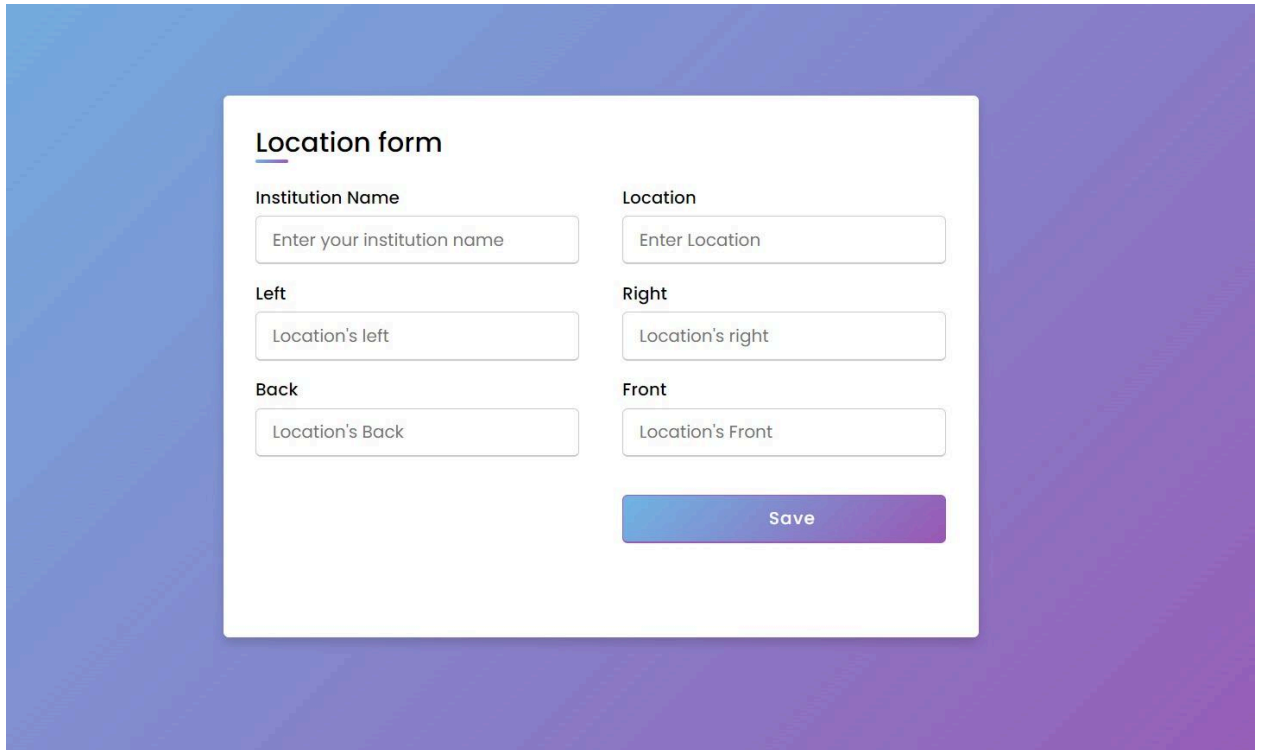
no

Login

Register



**c. Location Detail By Institution Page**

A screenshot of a web form titled "Location form" set against a blue and purple gradient background. The form is a white card with a title and five input fields arranged in two columns. The first column contains "Institution Name", "Left", and "Back". The second column contains "Location", "Right", and "Front". Each field has a light gray placeholder text. A blue "Save" button is at the bottom right of the form.

**Location form**

**Institution Name**  
Enter your institution name

**Location**  
Enter Location

**Left**  
Location's left

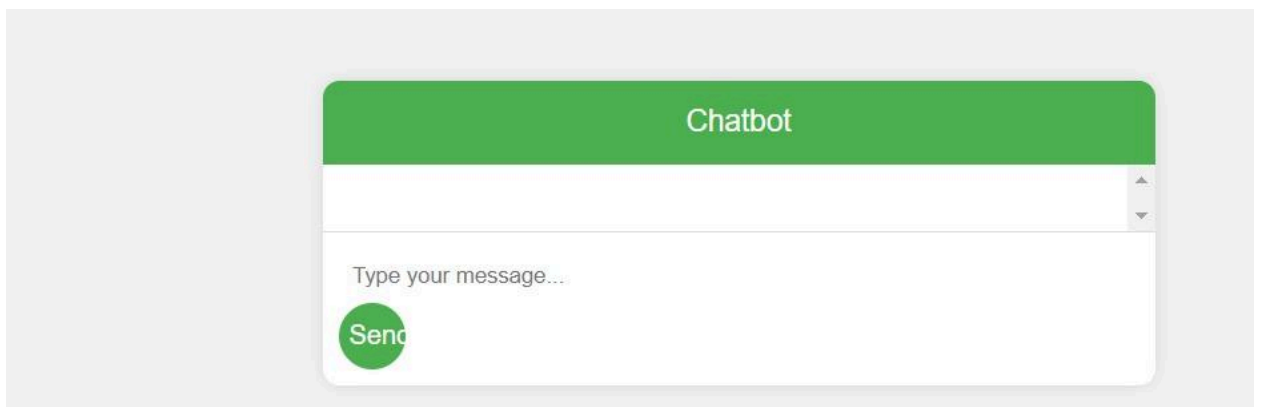
**Right**  
Location's right

**Back**  
Location's Back

**Front**  
Location's Front

Save

**d. Chat Bot Navigation Page**

A screenshot of a chatbot interface on a light gray background. It features a green header bar with the word "Chatbot". Below the header is a white message area with a vertical scrollbar on the right. At the bottom is a white input field with the placeholder text "Type your message...". To the left of the input field is a green circular button with the word "Send" in white.

Chatbot

Type your message...

Send