A PROJECT REPORT

On

Chatbot Application

Submitted by

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CERTIFICATE

Certified that this project report on **"Chatbot Application**." is the bonafide work of **"Saptarshi Banerjee (10800221153), Yuvraj Singh (10800221137), Shruti Kiran (10800220016), Priya Jha (10800220020)"** who carried out the project work under my supervision.

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Finally, we would like to express our deep sense of gratitude to our parents for their constant motivation and support throughout our work.

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CONTENT

LIST OF FIGURES

Project Synopsis

In this project, we create a chatbot that is used to get student queries and respond easily based on these queries. A chatbot is a program that can do real conversations in text methods. we created this using python and python Tkinter, there are two types of chatbots first one is command-based chatbots where chatbots rely on data provided and based on that data give replies, and the second type of chatbot is based on artificial intelligence and machine learning.
We created a Command-Based chatbot in which these users write some commands and based on this command boat replies approx. more than 20 questions based on data replies.

College inquiry Chatbot is designed to help student to get their queries solved in just a minute. Now students do not need to get much stress, if students need any information about Asansol Engineering College related to faculties, placement, or fee structure they and easily get it by providing appropriate commands, and based on these command boat replies this may decrease student stress and anxiety.

Introduction

This project is an application development to build a college chatbot using Python tkinter. This chatbot will enable students to get help to finding out information about classes or upcoming events. The chatbot will also provide information about student services and campus resources so that students can find the help they need quickly. This project will provide a friendly user experience and also simplify the process of finding answers to common student questions. The chatbot will be designed to interact with students through GUI interface and provide answers to their questions. The chatbot will also provide helpful hints and tips to help students make the most of their college experience.

Project Details

2.1 System Requirements:

- Modern Operating System:
  - Windows 7 or 10
  - Mac OS X 10.11 or higher, 64-bit
  - Linux: RHEL 6/7, 64-bit (almost all libraries also work in Ubuntu)
- x86 64-bit CPU (Intel / AMD architecture)
- 4 GB RAM
- 5 GB free disk space

2.2 Definitions and Theories

Chatbot applications using basic Python typically employ the use of a “bot”, which is a program that is designed to interact with a user by providing automated responses. The bot is programmed to recognize and respond to certain keywords and phrases, and can be tailored to the needs of the user. For example, a bot can be programmed to answer specific questions about a product, service, or topic, or to provide personalized recommendations for products

The Tkinter library in Python can be used to create a chatbot application without the use of AI. This can be achieved by creating a graphical user interface (GUI) and adding widgets such as text boxes and labels. The user can then type a question/command into the text box, and the application will respond according to the programmed logic. This can be achieved by using if-else statements, while loops, and other functions to determine what the user's input was and how it should be responded to. This type of chatbot application can be useful for simple tasks such as providing basic information, or for more complicated tasks such as providing customer service.

2.3 Data Flow Diagram

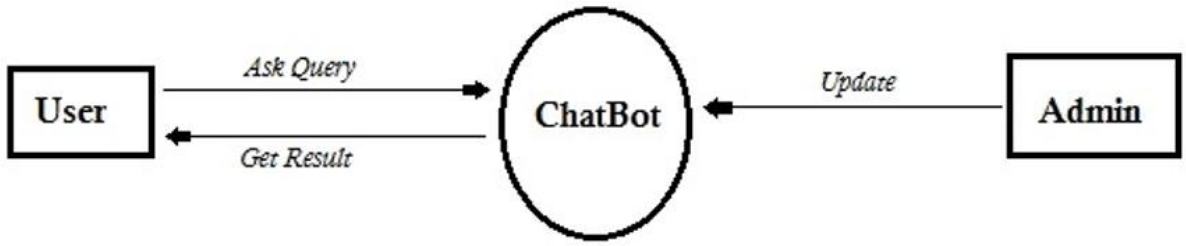

Figure 01: Level 0 DFD

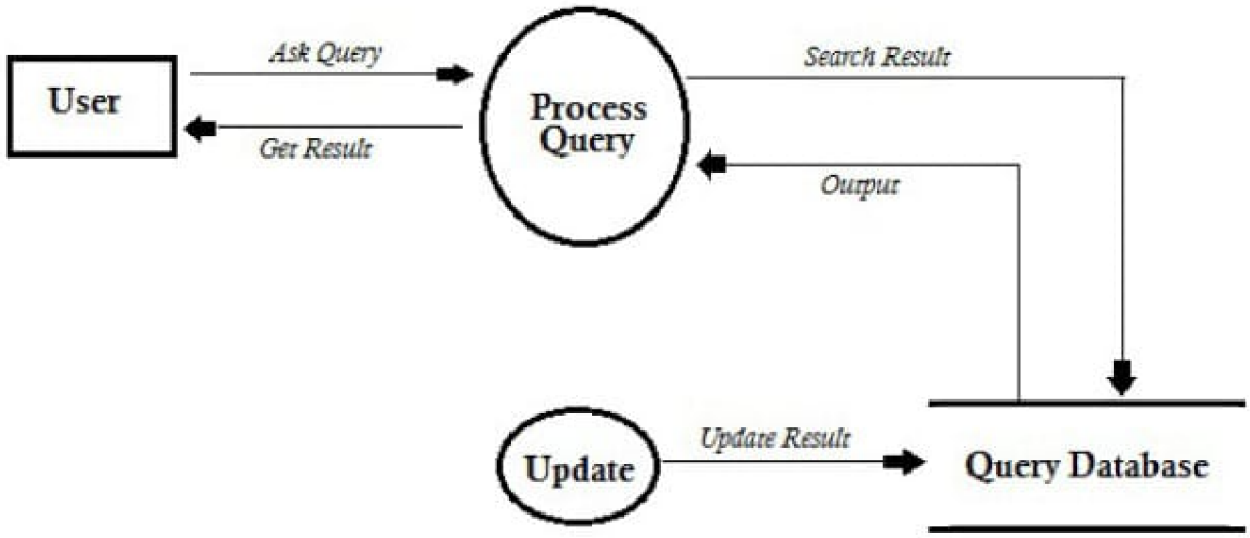

Figure 02: Level 1 DFD

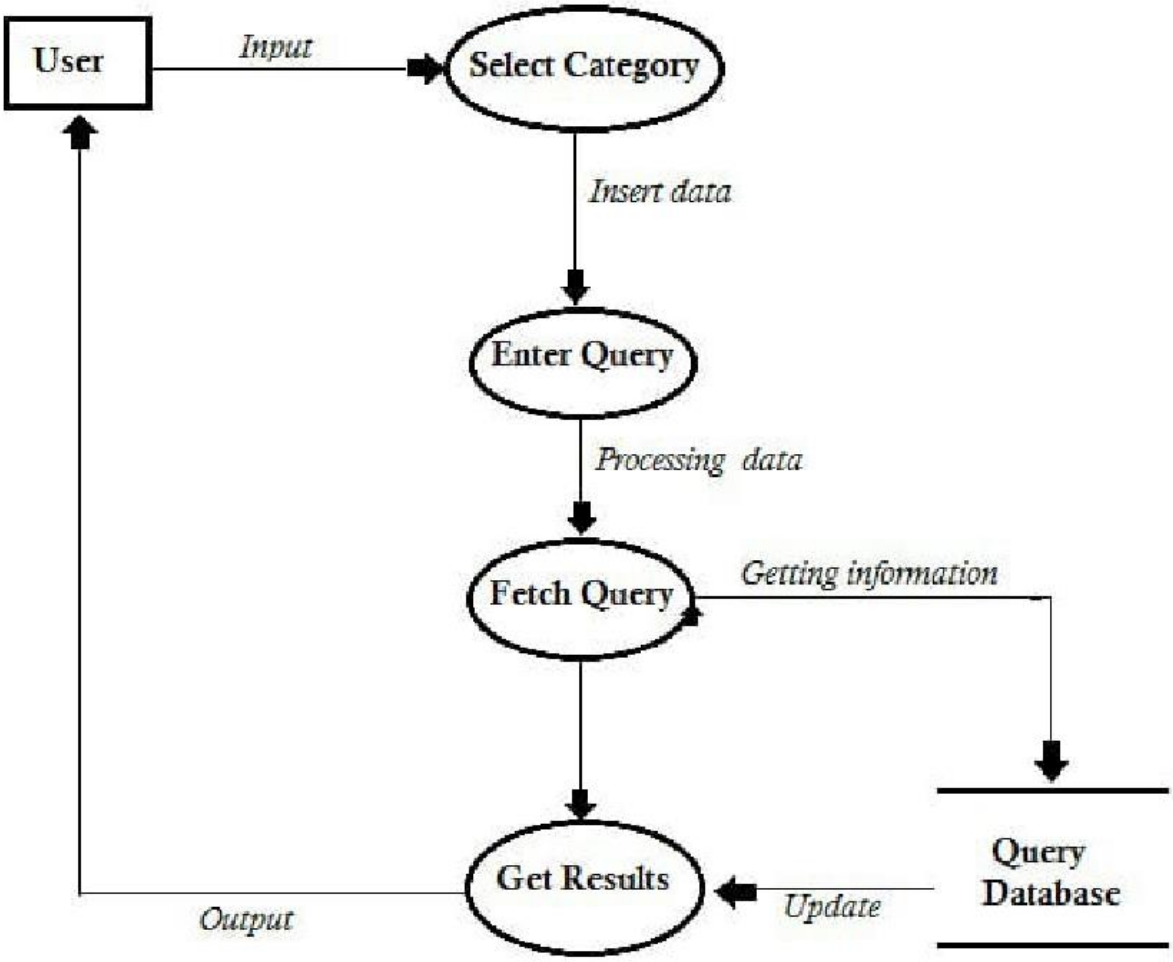

Figure 03: Level 2 DFD

2.4 Outcomes of the project

1. Improved Student Engagement: The chatbot can provide students with quick and easy access to academic resources, services, and support. This can help to increase student engagement and satisfaction with the college.

2. Improved Student Retention: By providing personalized responses to student inquiries, the chatbot can help to reduce dropout rates and improve student retention.

3. Increased Accessibility: With the chatbot available 24/7, students can access information and resources at any time, regardless of where they are located.

4. Improved Academic Performance: By providing students with an easier way to access information, the chatbot can help to improve student performance by reducing the amount of time they need to spend searching for resources and support.

5. Increased Efficiency: The chatbot can help to streamline processes and save time by eliminating the need for manual tasks, such as sorting through emails or manually answering frequently asked questions.

2.5 Working Flow of the Project

- The primary look of the application

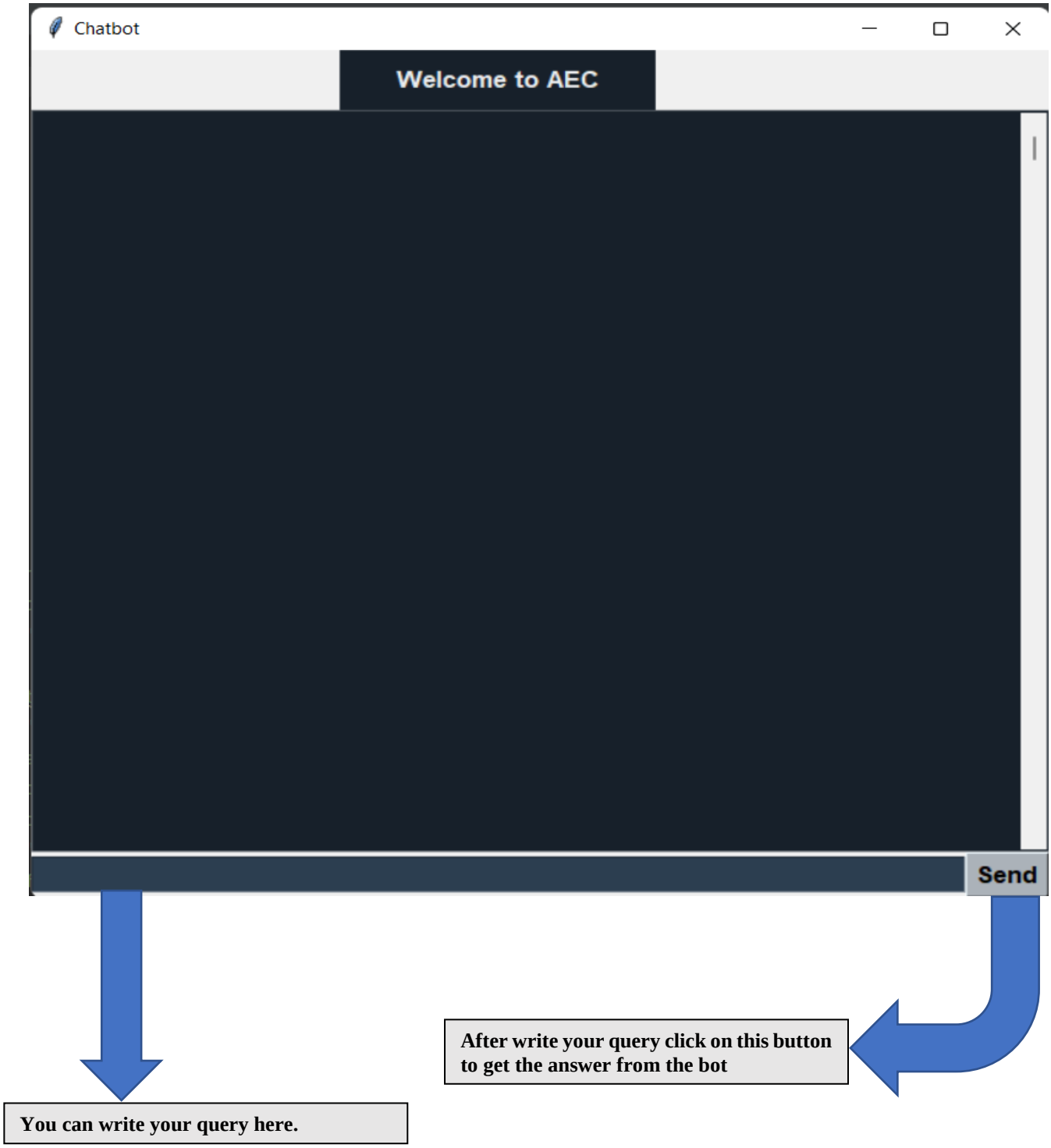

Figure 04: The Primary Structure

- It will start after you send Hi/Hello.
- You can ask it name or it developer information.

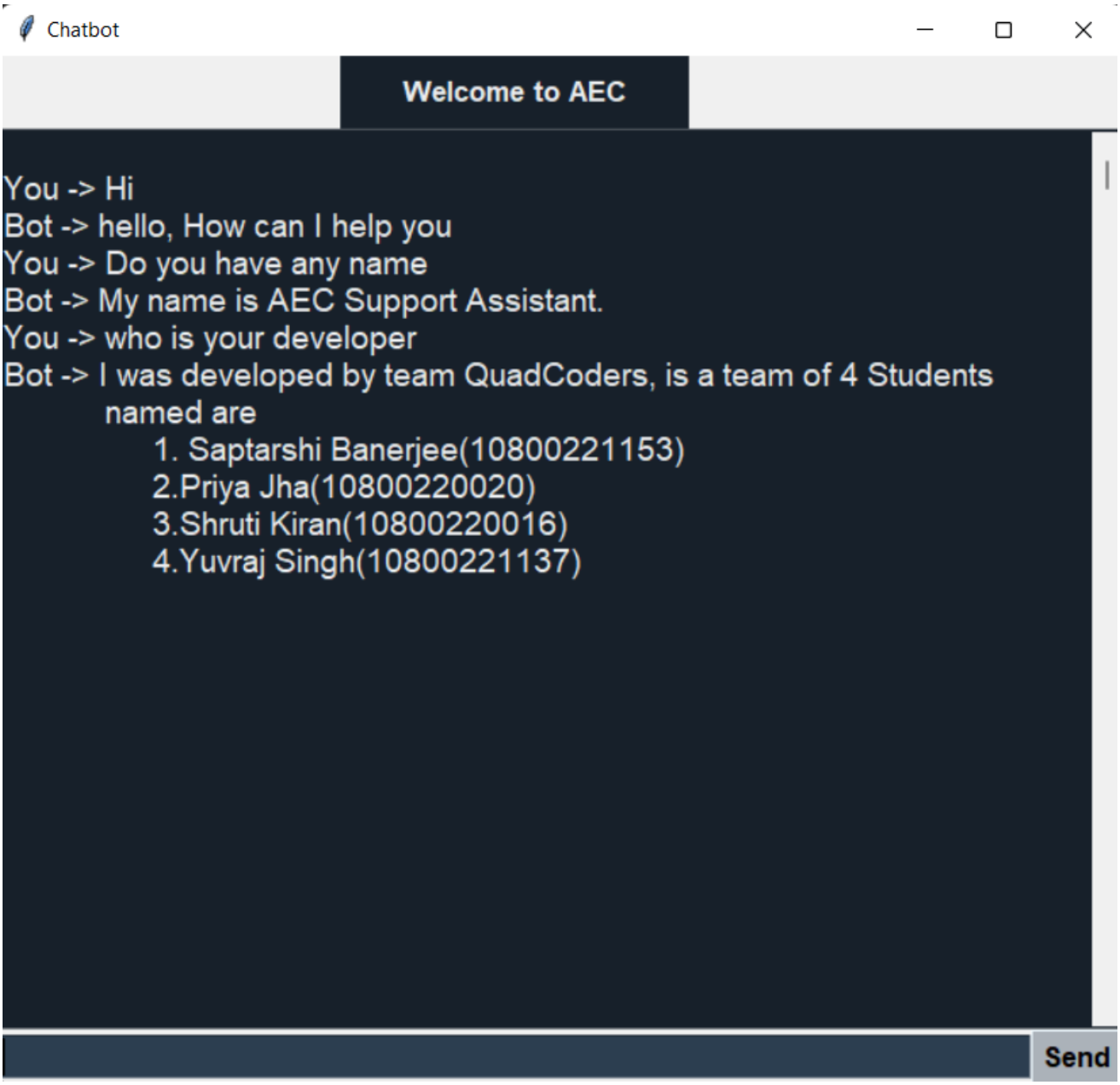

Figure 5.1: Working flow of project

- The Chatbot is able to answer every information related to AEC.

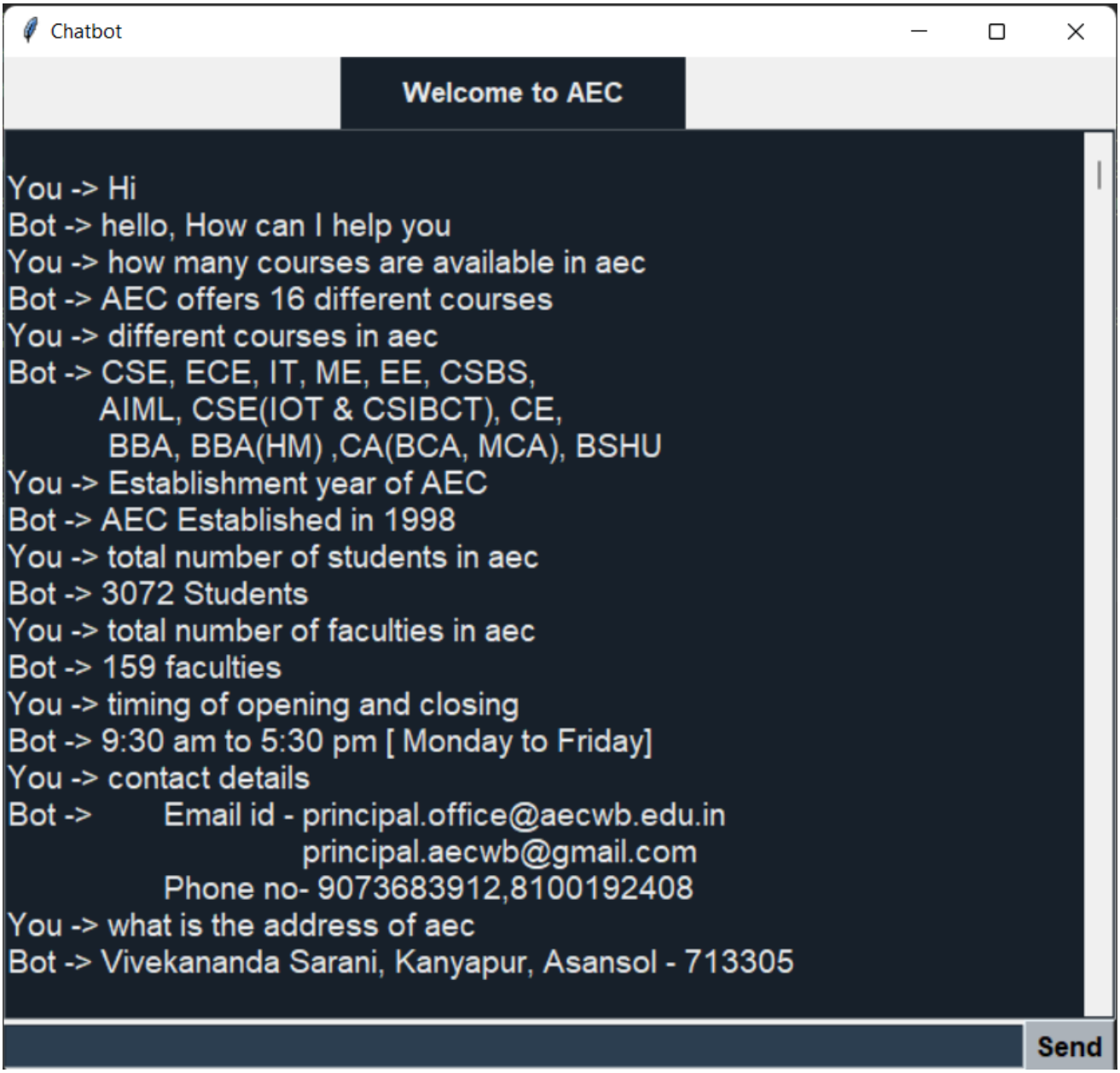

Figure 5.2: Working flow of project

Conclusion

In conclusion, this application has demonstrated a great potential to help students, faculty, and staff at universities by providing automated services and support in an accessible, convenient, and cost-effective way. Through the integration of AI technologies, it can provide an intuitive interface for users to ask questions and find answers quickly. Moreover, this application can provide personalized recommendations and advice to users by understanding their preferences. Finally, this application can help enhance overall user experience by providing a more efficient and smooth process for accomplishing tasks. With these features, the chatbot application is set to revolutionize the way universities operate in the near future.

Future Scope

In current, we work on a limited dataset but in the future, we create a chatbot using artificial intelligence and machine learning that is not limited to a particular dataset, we create a chatbot that answers any queries based on AI and ML. In the future, everything is based on Ai and we need chatbots in every industry, and in the future, it provide voice-based output as well. To improve the functionalities of College Enquiry Chatbot, in the future, the scope of the chatbot can be increased by inserting data for all the departments, training the bot with varied data, testing it on the live website, and taking the feedback based on that we efficiently train the bot. Some of the new features which can be added to the board

- Speech Recognition: Students can ask their queries
- verbally and get answers from the bot
- Integration with services such as reset password, course enrolment
- Integration with social media such as Instagram, Twitter

Reference

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