

**Project Title:** Create Chatbot in Python

**Problem Statement:** When using an app or website, customers expect outstanding service. They can become disinterested in the app if they can't locate the solution to a question they have. To avoid losing customers and having an adverse effect on your bottom line, you must provide the highest quality service possible while developing a website or application.

# Project Steps

## Phase 1: Problem Definition and Design Thinking

The challenge is to create a chatbot in Python that provides exceptional customer service, answering user queries on a website or application. The objective is to deliver high-quality support to users, ensuring a positive user experience and customer satisfaction.

**Problem Definition:** The problem is to build an AI-powered diabetes prediction system that uses machine learning algorithms to analyze medical data and predict the likelihood of an individual developing diabetes. The system aims to provide early risk assessment and personalized preventive measures, allowing individuals

## **Design Thinking:**

1. **Functionality:** Define the scope of the chatbot's abilities, including answering common questions, providing guidance, and directing users to appropriate resources.
2. **User Interface:** Determine where the chatbot will be integrated (website, app) and design a user-friendly interface for interactions.
3. **Natural Language Processing (NLP):** Implement NLP techniques to understand and process user input in a conversational manner.
4. **Responses:** Plan responses that the chatbot will offer, such as accurate answers, suggestions, and assistance.
5. **Integration:** Decide how the chatbot will be integrated with the website or app.
6. **Testing and Improvement:** Continuously test and refine the chatbot's performance based on user interactions.

## **Phase 2: Innovation**

In this phase, consider exploring advanced techniques like using pre-trained language models (e.g., GPT-3) to enhance the quality of responses.

## **Phase 3: Development Part 1**

Start building the chatbot by preparing the environment and implementing basic user interactions.

## **Phase 4: Development Part 2**

Continue building the chatbot by integrating it into a web app using Flask.

## **Phase 5: Project Documentation & Submission**

Document the project and prepare it for submission.

## **Documentation**

- Clearly outline the problem statement, design thinking process, and the phases of development.
- Describe the libraries used and the integration of NLP techniques.
- Explain how the chatbot interacts with users and the web application.
- Document any innovative techniques or approaches used during the development.

## **Submission**

- Compile all the code files, including the chatbot implementation and web application code.
- Provide a well-structured README file that explains how to run the code and any dependencies.
- Include the dataset source and a brief description.
- Share the submission on platforms like GitHub or personal portfolio for others to access and review.