AI Diabetes prediction System – phase 1

Problem Statement:

Build an AI-powered diabetes prediction system that utilizes machine learning algorithms to analyze medical data and predict an individual's likelihood of developing diabetes. The system's goal is to offer early risk assessment and personalized preventive measures, empowering individuals to proactively manage their health.

Design Thinking:

- Define the scope of the chatbot's abilities, including:
  - Answering common questions related to diabetes.
  - Providing guidance on managing health and diabetes risk.
  - Directing users to appropriate resources for further information and support.

User Interface:

- Determine integration points for the chatbot (website, app).
- Design a user-friendly interface for seamless interactions with the chatbot.

Natural Language Processing (NLP):

- Implement NLP techniques to enable the chatbot to understand and process user input in a conversational manner.

Responses:

- Plan responses for the chatbot, including:
  - Accurate answers to diabetes-related queries.
  - Suggestions for lifestyle changes.
  - Assistance in accessing medical resources.

Integration:

- Decide how the chatbot will be integrated with the website or app, ensuring a smooth user experience.

Testing and Improvement:

- Continuously test the chatbot's performance through real user interactions.
- Gather user feedback and data to refine the chatbot's responses and capabilities.

Dataset:

We can find a suitable dataset for building and training the diabetes prediction model at the following link: [Dataset Link](https://www.kaggle.com/datasets/grafstor/simple-dialogs-for-chatbot)

This assignment notebook summarizes the problem, design thinking considerations, and dataset information for Phase 1 of developing the AI-powered diabetes prediction system. It provides a structured framework for the initial phase of the project.