SUBMITTED BY-

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Batch-12

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AIML ASSIGNMENT-2

Develop a Flask-based UI to use the ML/DL model developed in the Assignment – 1. Upload your all the resources on GitHub.

Overview

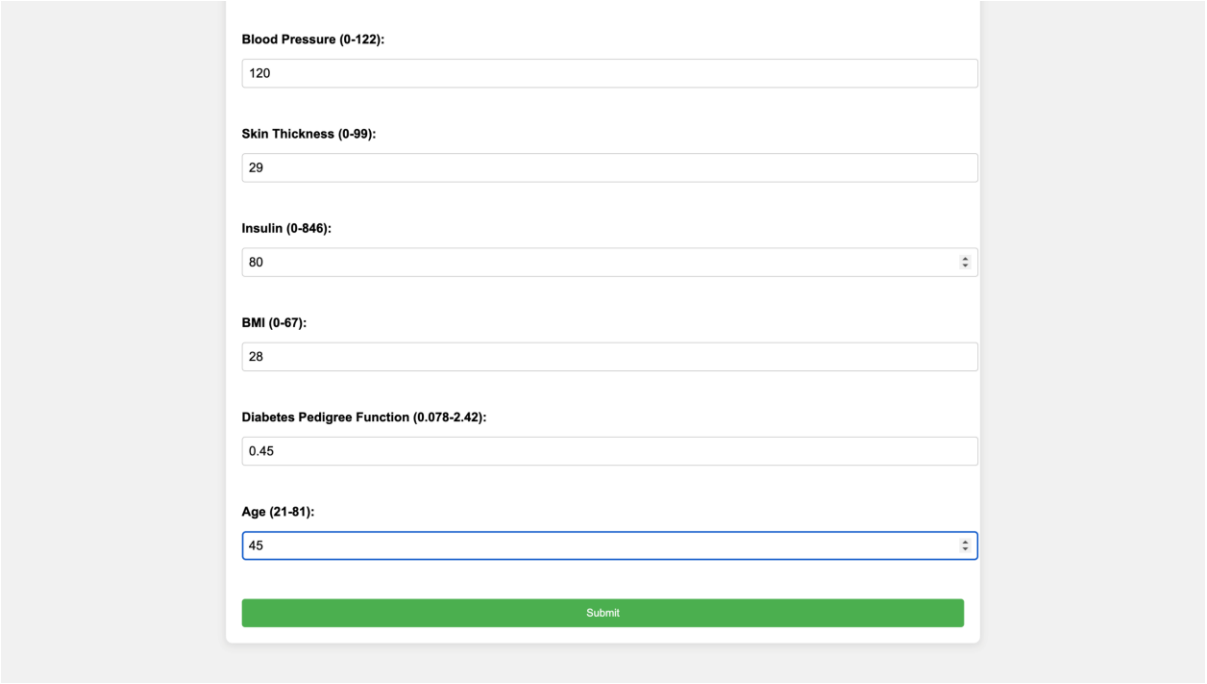
This Flask application is a web-based platform designed to predict whether a person is diabetic based on input data. It uses a pre-trained machine learning model for predictions, which is loaded and invoked in the backend via a function called `preprocess_and_predict`.

Key Features

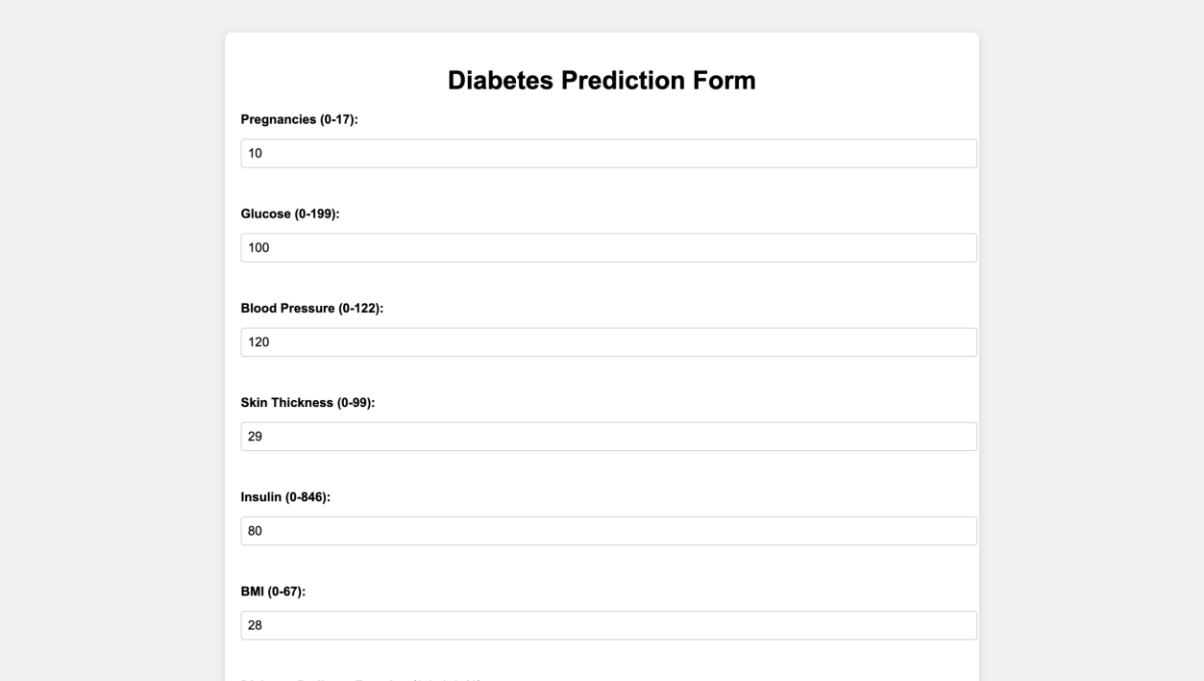
1. **Interactive Web Form**:
    - The app displays a webpage where users can enter health-related details like glucose levels, BMI, and age.
2. **Machine Learning Prediction**:
    - The app uses a machine learning model to analyze the provided data and predict whether the person is diabetic.
3. **Results Display**:
    - After prediction, the result ("Diabetic" or "Non-Diabetic") is shown on the same webpage.

How It Works

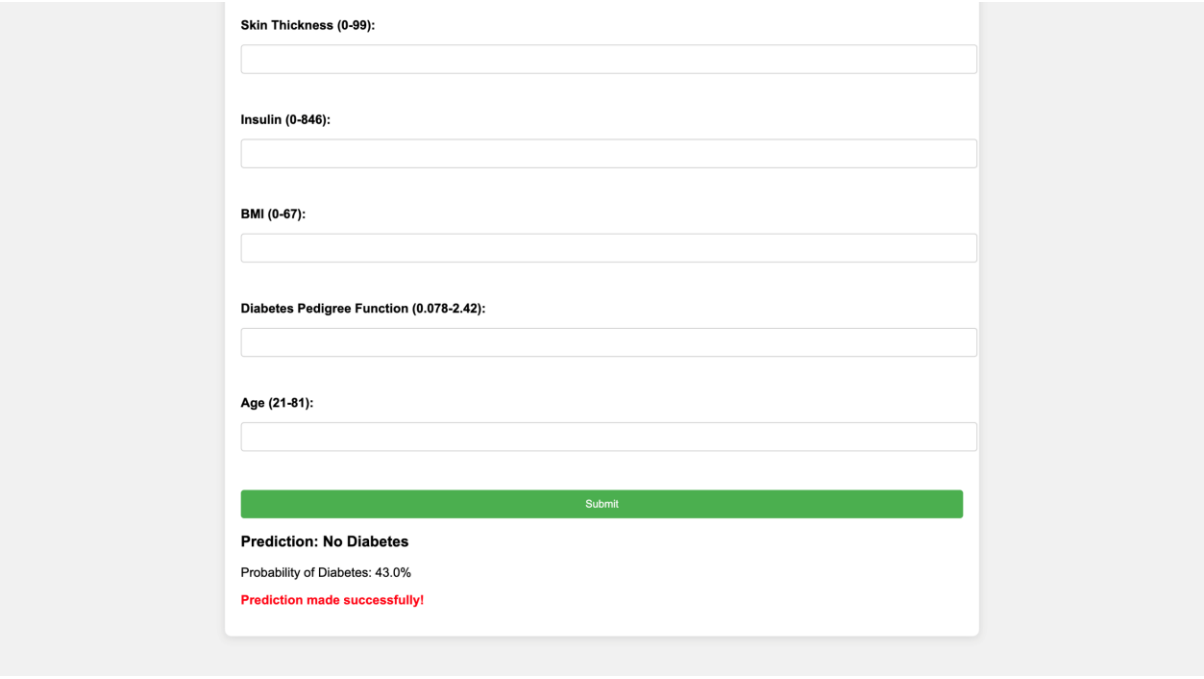
1. **User Interaction**:
    - The user visits the webpage and fills out a form with their health information, such as blood pressure, insulin levels, and glucose readings.



2. **Data Submission**:
    - Once the form is submitted, the data is sent to the app for processing.



3. **Processing and Prediction**:
    - The app preprocesses the input data and uses a pre-trained model to make a prediction.
4. **Result Display**:
    - The app sends the prediction back to the webpage, displaying whether the user is "Diabetic" or "Non-Diabetic."



Components of the App

1. **Backend (Flask App)**:
    - Handles user requests and predictions.
    - Processes the input data and communicates with the machine learning model.
2. **Prediction Model**:
    - A pre-trained machine learning model is used to make predictions based on the user's input.
3. **Frontend (Webpage)**:
    - A simple HTML form collects data from the user.
    - The prediction result is displayed dynamically on the same page after submission.