User Guide for Diabetes Prediction App

Welcome to the Diabetes Prediction App! This application helps you predict the likelihood of diabetes based on various health metrics and lifestyle factors. Below is a comprehensive guide to help you navigate and use the app effectively.

1. Introduction

The Diabetes Prediction App allows you to input your health details, and based on those inputs, it predicts whether you might be at risk for diabetes. The app also generates a medical report that you can download in PDF or image format.

2. Getting Started

Open the Streamlit App:

Launch the Streamlit app in your browser. The main interface will appear with fields for entering your information.

3. Input Your Details

i. Enter Your Name:
- Field: Enter Name
- Description: Input your full name. This will be used to personalize the medical report.

ii. Select Your Gender:
- Field: Gender
- Options: Male, Female
- Description: Choose your gender from the dropdown menu. This helps in personalizing the salutation in your medical report.

iii. Age:
- Field: Age
- Type: Numeric input
- Range: 0 to 120 years
- Default: 30 years
- Description: Enter your age. This is used to assess your risk based on age-related factors.

iv. Hypertension:
- Field: Hypertension
- Options: No, Yes
- Description: Indicate whether you have hypertension. This helps evaluate the risk in conjunction with other factors.

v. Heart Disease:
- Field: Heart Disease
- Options: No, Yes
- Description: Select whether you have a history of heart disease. This information is crucial for accurate risk assessment.

vi. Smoking History:
- Field: Smoking History
- Options: never, current, formerly, No Info, ever, not current
- Description: Choose your smoking history. This factor influences your risk of diabetes.

vii. BMI (Body Mass Index):
- Field: BMI
- Type: Numeric input
- Range: 10.0 to 100.0
- Default: 25.0
- Description: Enter your BMI value. It's an important indicator of your body weight relative to height.

viii. HbA1c Level:
- Field: HbA1c Level
- Type: Numeric input
- Range: 3.5 to 9.0
- Default: 5.5
- Description: Provide your HbA1c level, a measure of your average blood glucose levels over the past 2-3 months.
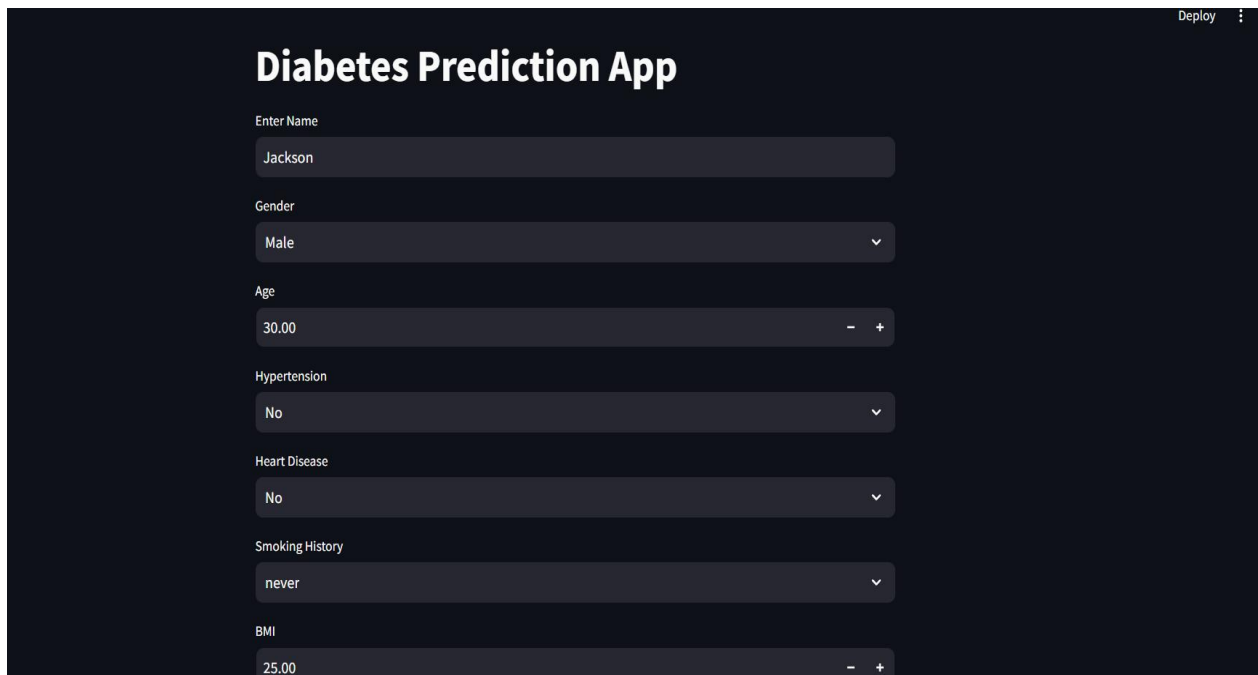
ix. Blood Glucose Level:
- Field: Blood Glucose Level
- Type: Numeric input
- Range: 80 to 300

- Default: 140
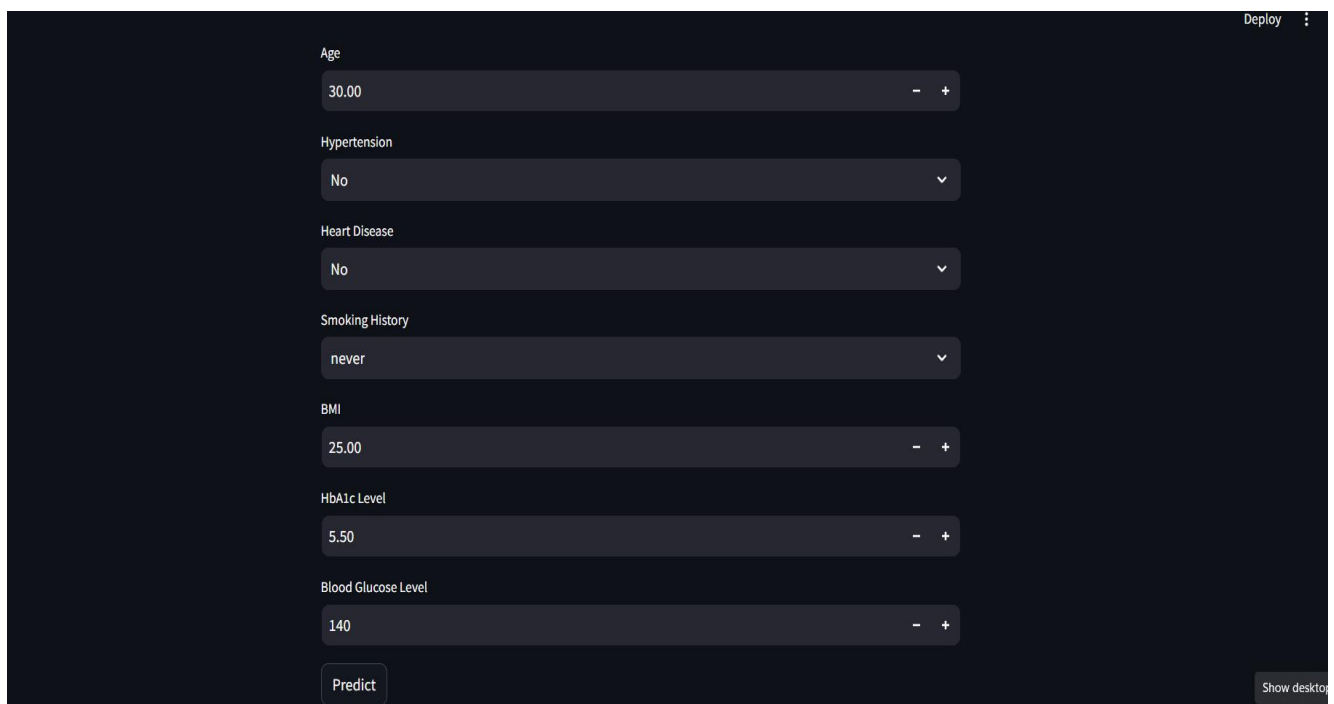- Description: Enter your blood glucose level, which is a key factor in diabetes prediction.

4. Make a Prediction

i. Click the "Predict" Button:

- After entering all the details, click the "Predict" button to get the result.
- The app will process the input data and display the prediction result along with a personalized medical report.

Medical Report for Mr. Jackson

Patient Name: Mr. Jackson
Gender: Male
Age: 30.0
Hypertension: No
Heart Disease: No
Smoking History: never
BMI: 25.0
HbA1c Level: 5.5
Blood Glucose Level: 140

Prediction: Non-Diabetic

Congrats! You seem to be Healthy, Have a NICE Day

Download PDF

Download Image

5. View the Results

i. Prediction Result:

- The prediction result will be displayed in a large font. It will show whether you are likely to be "Diabetic" or "Non-Diabetic".

- **Message Based on Prediction:**
  - ➢ If you are predicted to be "Diabetic": "Take Care of your Health, Have a NICE Day"
  - ➢ If you are predicted to be "Non-Diabetic": "Congrats! You seem to be Healthy, Have a NICE Day"

ii. Medical Report:

- A detailed medical report is displayed in a structured format. It includes your personal details and the prediction result.

- The report will be formatted as follows:
  - ➢ Patient Name: [Your Name]
  - ➢ Gender: [Your Gender]
  - ➢ Age: [Your Age]
  - ➢ Hypertension: [Yes/No]
  - ➢ Heart Disease: [Yes/No]
  - ➢ Smoking History: [Your Smoking History]
  - ➢ BMI: [Your BMI]
  - ➢ HbA1c Level: [Your HbA1c Level]
  - ➢ Blood Glucose Level: [Your Blood Glucose Level]
  - ➢ Prediction: [Diabetic/Non-Diabetic]

6. Download the Report

i. **Download PDF Report:**

- Button: Download PDF
- Description: Click this button to download a PDF version of your medical report.

ii. **Download Image Report:**

- Button: Download Image
- Description: Click this button to download an image of your medical report.

Medical Report for Mr. Jackson

Patient Name: Mr. Jackson
Gender: Male
Age: 30.0
Hypertension: No
Heart Disease: No
Smoking History: never
BMI: 25.0
HbA1c Level: 5.5
Blood Glucose Level: 140

Prediction: Non-Diabetic

Non-Diabetic - Congrats! You seem to be Healthy, Have a NICE Day

7. Summary

- Prediction Result and Name: Displayed prominently in a larger font.
- Personalized Message: A footer message based on your prediction result.
- Medical Report: Detailed and structured for easy reading.
- Download Options: PDF and image formats for your convenience.

8. Troubleshooting

- Ensure all fields are filled out correctly. If a field is not filled out, the app may not provide a prediction.
- Check your input values: Make sure numerical inputs fall within the specified ranges.
- If you encounter any issues, try refreshing the app or contact support for assistance.

Thank you for using the Diabetes Prediction App. We hope this tool helps you stay informed about your health. If you have any questions or need further assistance, feel free to reach out to us.