

# **DIABETIC MELLITUS PREDICTION WITH VITAL SIGNS USING LOGISTIC REGRESSION**

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# SYNOPSIS

- OBJECTIVE
- NOVELTY IN THE PROJECT
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# OBJECTIVE

- Diabetes is a condition that develops when blood glucose levels are too high.
- The primary energy source for humans is blood glucose, which is obtained from meals.
- Health issues might result from elevated blood glucose levels. Although there is no cure for diabetes, there are steps we can take to manage it and maintain our health.
- We develop a novel software that uses certain diagnostic datasets to predict the presence of diabetes, and we investigate several ways to improve performance and accuracy.

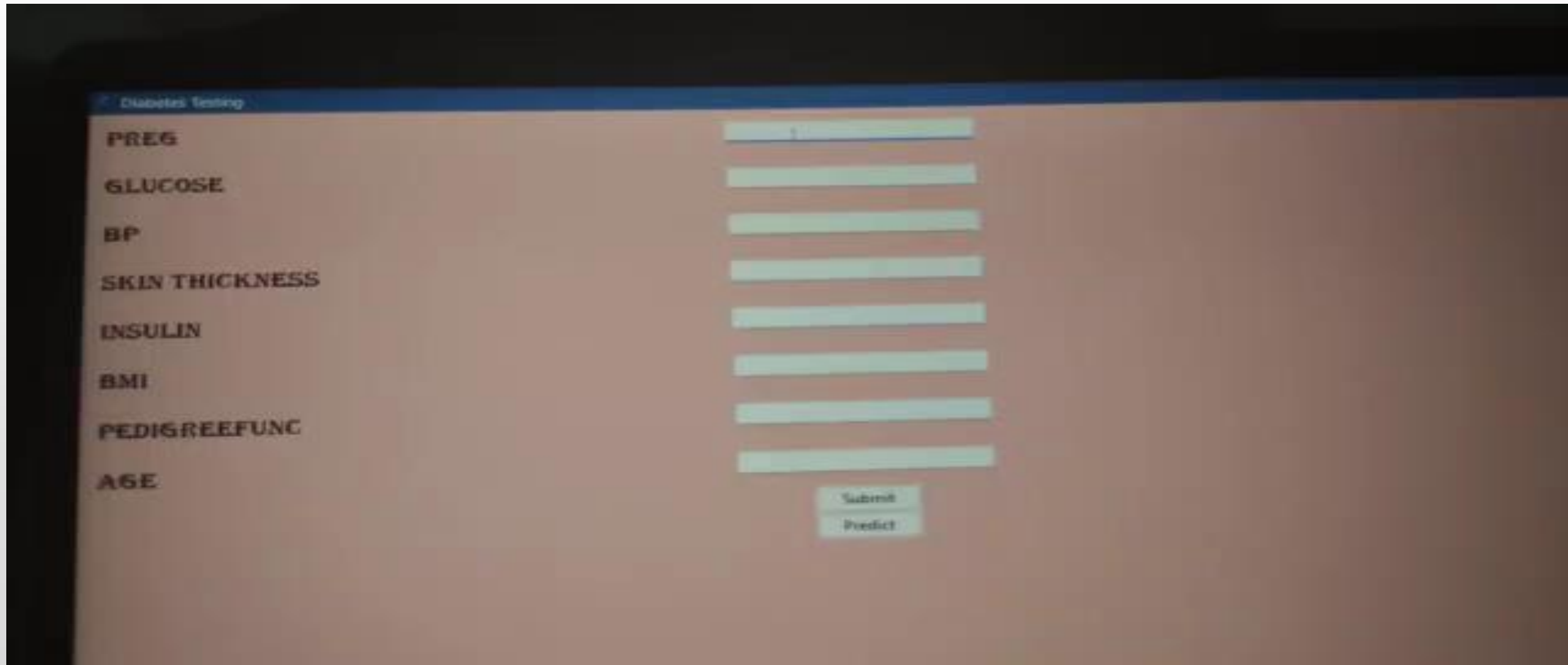




# NOVELTY IN THE PROJECT

- In this application, we requested that the user enter the patient's vital statistics, including age, BMI, pregnancy, glucose, blood pressure, skin thickness, and pedigree function.
- This software uses the data to determine if the patient has diabetes or not.
- This program offers preventive actions, like as dietary adjustments and increased physical activity, in the event that the patient has diabetes. Also, it advises the patient on what foods to eat on a regular basis based on their protein, fat, and carbohydrate intake.

# PROJECT DEMONSTRATION



A screenshot of a web application titled "Diabetes Testing". The interface features a list of medical variables on the left, each paired with a text input field on the right. The variables are: PREG, GLUCOSE, BP, SKIN THICKNESS, INSULIN, BMI, PEDIGREEFUNC, and AGE. Below the input fields are two buttons: "Submit" and "Predict".

Variable	Input Field
PREG	<input type="text"/>
GLUCOSE	<input type="text"/>
BP	<input type="text"/>
SKIN THICKNESS	<input type="text"/>
INSULIN	<input type="text"/>
BMI	<input type="text"/>
PEDIGREEFUNC	<input type="text"/>
AGE	<input type="text"/>

# SOCIAL APPLICATION

- Diabetes is a chronic condition that could result in a crisis in global healthcare.
- The diagnosis of diabetes can be made using a number of conventional techniques based on physical and chemical examinations.
- It is a difficult task for medical professionals to predict diabetes early, though.
- By this software a patient can immediately anticipate their diabetic mellitus condition and receive their preventative measures, diet programs, and macronutrient levels with this software.
- So, from a social perspective, this application aids the patient in predicting their diabetic status and lowering health risks.
- The study of how machines learn from experience is the subject of the newly emerging scientific discipline of machine learning in data science.
- The goal of this study is to create a system that can accurately predict diabetes early in the course of a patient's illness.

# CONCLUSION

- Our software helps diabetic patients have a deeper understanding of self-care strategies and their usefulness in managing and controlling diabetes and engaging in more self-care activities.
- Diabetes is a slow killer with no known cures. However, its complications can be reduced with proper awareness and timely treatment. So this software will help the patients to predict their diabetic status quickly.



*Thank You*