Introduction:

The early detection of diseases such as diabetes, heart disease, and Parkinson's disease is crucial for effective treatment and management. In this project, we developed machine learning models for each of these diseases using Python and a variety of classification algorithms. Python has been used to design the intelligence driven system and has been used to build an interactive web application that allows users to input their health data and obtain predictions on their disease risk. The web application was user-friendly and provided accurate predictions for each disease. Our work demonstrates the potential of machine learning and Streamlit in disease detection and highlights the importance of early diagnosis for better patient outcomes.

Step I:

The first screen is the usual Login page that allows the users to login to the web portal for accessing the ML based system. This includes the username and password. A wrong entry will deny entry to the portal. On successful access, the user can logout via the logout button on the left pane.

Step II:

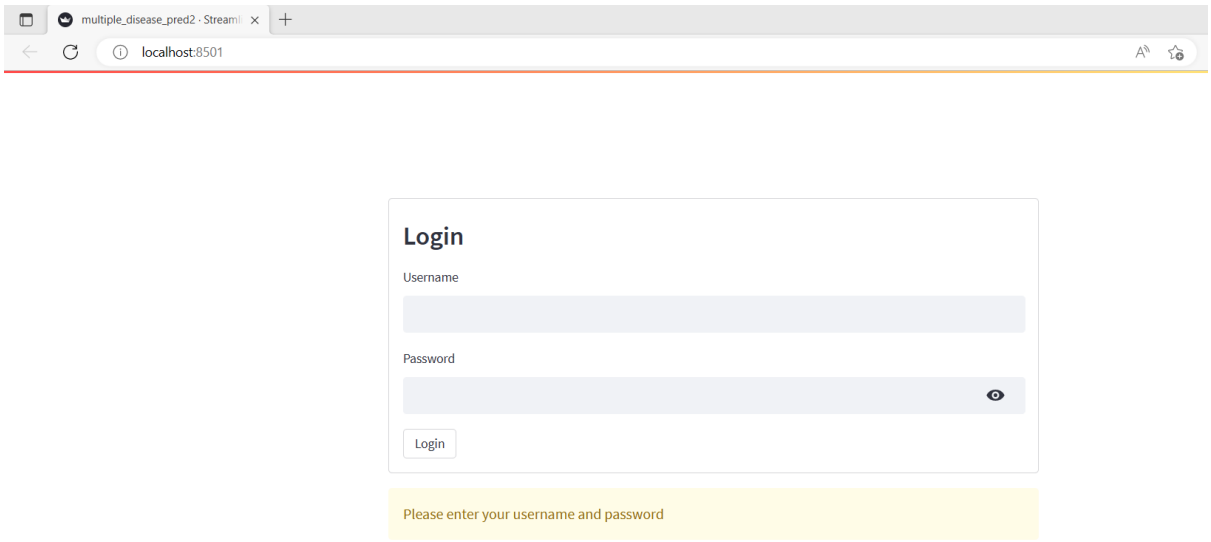
On entering the portal, there are three options on the left pane pertaining to the three types of disease detection. These tabs on the left will guide to the respective micro site pages for diagnosis and prediction of the diseases. In every case the patient values are to be entered to get the possible diagnosed/predicted result.

Step III:

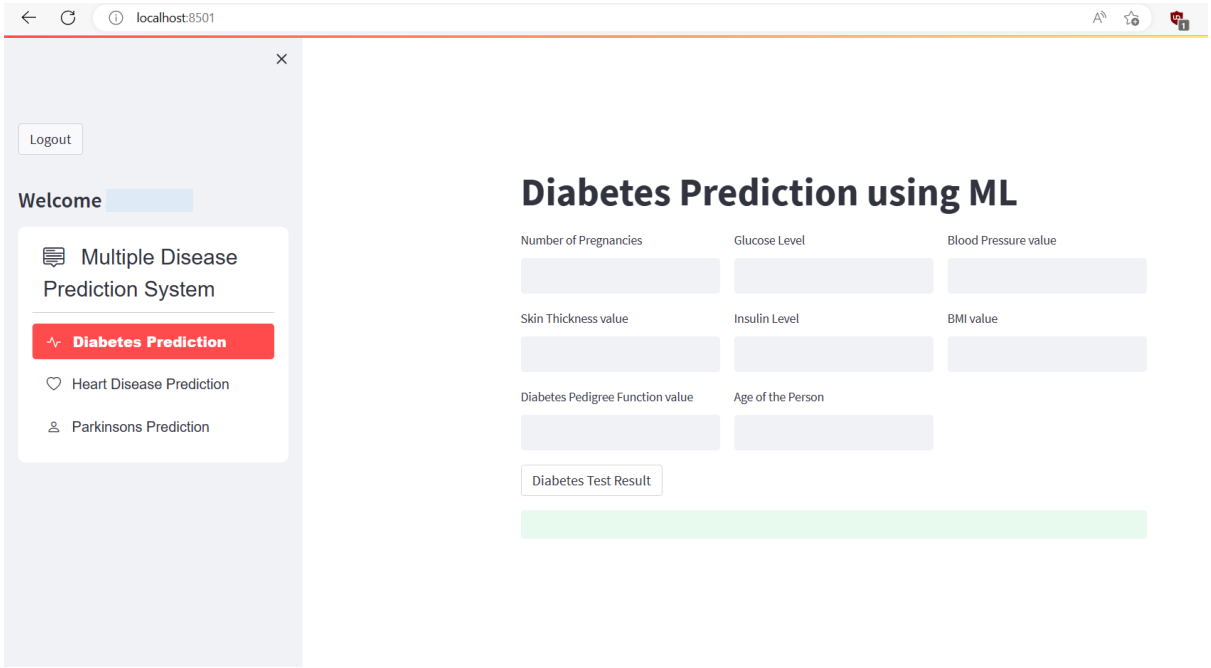
Finally, after the result has been achieved, on the left pane the logout button will guide the user to logout of the portal.

Screenshots:

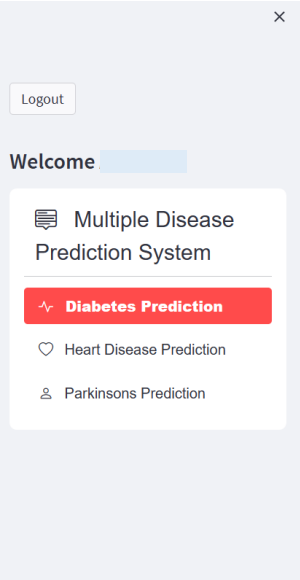
Login Page:

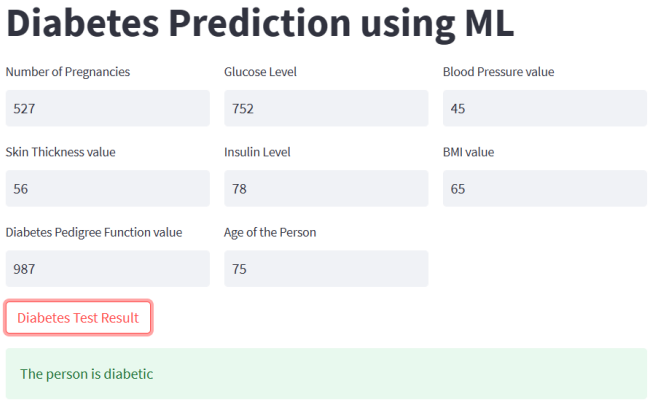


After entering the portal the front page:



For positive results:





The file structure:

I. ***code diabetes***: consists of the codes for prognosis of diabetes based on ML algorithms.
II. ***code heart***: consists of ML based codes for prognosis of heart disease.
III. ***code Parkinson's***: consists of codes for prognosis of Parkinson's disease based on ML algorithms and predictions.
IV. ***Multiple disease pred4***: consists of connecting codes and driving file which joins the complete structure. This is the file which is the main for running the complete model.