Mini Project Synopsis

Group ID:01
Project Title: Disease Prediction System
Group Members:

Enrollment No	Roll No	Name	Email ID	Contact No
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Problem Statement:

Building a system which can predict different types of disease as well as it can also provide Doctor detail for appointment and also generate a lab report. (lab report is generated as basis on the user input and ML model prediction. If doctor suggestion is there then after doctors suggestion lab report is again generated).

Abstract:

Recently, many researchers have designed various automated Disease prediction models using various supervised Machine learning algorithm. An early diagnosis of disease may control the death rate of a patience due to diseases. In this paper, an efficient automated disease prediction model is designed using the machine learning algorithm which are integrated in webapp using flask. For this project, we have selected three critical diseases such as Covid 19, Heart (cardiovascular) disease, and Breast Cancer. In the proposed model, the data is entered by user through and webapp, the analysis is then performed in a real-time by using pretrained machine learning model which is already integrated in webapp, and finally, the disease detection result is shown on the webapp app. In our system we are generating the Lab report where the report consist of patience detail its symptoms and the result of our ML model. Comparative analysis indicates that the proposed model can help doctors to give timely medications for treatment.

Literature Survey:

Title	Summary	Publish date
1. Heart Disease Prediction using Machine Learning Techniques	Heart disease, alternatively known as cardiovascular disease, encases various conditions that impact the heart and is the primary basis of death worldwide over the span of the past few decades. It associates many risk factors in heart disease and a need of the time to get accurate, reliable, and sensible approaches to make an early diagnosis to achieve prompt management of the disease. Data mining is a commonly used technique for processing enormous data in the healthcare domain.	16 October 2020
2. Personalized Treatment & Behavioural Modification	Based on supervised learning, medical professionals can predict the risks and threats to a patient's health according to the symptoms and genetic information in his medical history.	08 January 2021
3. Covid -19 Cases Prediction with Python	These types of predictive models help in providing an accurate prediction of epidemics, which is essential for obtaining information on the likely spread and consequences of infectious diseases.	29 Nov 2020.

Proposed System's MLFlow :

Flow Diagram - Machine Learning Flow

Conclusion:

This study provides insights into using the machine learning models to predict the risk of COVID-19, heart disease, and breast cancer in an individual based on answering a few questions related to various factors like travel history, age, gender, and blood pressure, shape size, bmi etc.

References:

1. https://www.hindawi.com/journals/jhe/2021/9983652/
2. https://ieeexplore.ieee.org/abstract/document/4493524
3. https://ieeexplore.ieee.org/abstract/document/8819782
4. https://link.springer.com/article/10.1007/s42979-020-00305-w

Annexure:

Annexure I: Form A-Title Approval
Annexure II: Form B-Market and financial feasibilityAnnexure
Annexure III: Literature survey paper