Visualizing and Predicting heart disease with an interactive dashboard

Description:

Cardiovascular diseases are the most common cause of death worldwide over the last few decades in the developed as well as underdeveloped and developing countries. Early detection of cardiac diseases and continuous supervision of clinicians can reduce the mortality rate.

However, accurate detection of heart diseases in all cases and consultation of a patient for 24 hours by a doctor is not available since it requires more sapience, time and expertise. In this study, a tentative design of a cloud-based heart disease prediction system had been proposed to detect impending heart disease using (SVM) Machine learning techniques.

The heart is a kind of muscular organ which pumps blood into the body and is the central part of the body’s cardiovascular system which also contains lungs. Cardiovascular system also comprises a network of blood vessels, for example, veins, arteries, and capillaries. These blood vessels deliver blood all over the body. Abnormalities in normal blood flow from the heart cause several types of heart diseases which are commonly known as cardiovascular diseases (CVD).

About Dataset:

1. Age
2. Sex
3. Chest pain type
4. Resting Blood pressure
5. Cholestoral
6. Fasting Blood sugar
7. Resting electrocardiographic
8. Maximum heart rate achieved
9. Thalium stress
10. Number of major vessels
11. Target

Download dataset: [Predicting heart disease using machine learning 🩺 | Kaggle](https://www.kaggle.com/code/faressayah/predicting-heart-disease-using-machine-learning)

Challenge:

Prediction of cardiovascular disease

results is not accurate.

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1. Prediction of cardiovascular disease results is not accurate
2. Data mining techniques does not help to provide efficient decision making.
3. Cannot handle enormous dataset for patient records.

Task 1: Data preprocessing

Task 2: Feature selection and reduction

Task 3: Classification Modelling

Task 4: Language model

Task 5: Random Forest

Task 6: Supportive Vector Machine

Task 7: Performance Measures