VISUALIZING AND PREDICTING HEART DISEASE USING INTERACTIVE DASHBOARD

ABSTRACT:

I am creating a project on VISUALIZING AND PREDICTING HEART DISEASE USING INTERACTIVE DASHBOARD. The project uses raw data in form of a .csv file and transforms into Data Analysis. This project is an attempt of data analyzing Heart Disease Prediction with the help of data analytics in python code. Heart disease is one of the biggest causes of morbidity and mortality among the population of the world. Prediction of cardiovascular disease is regarded as one of the most important subjects in the section of clinical data analysis. The amount of data in the healthcare industry is huge. Data mining turns the large collection of raw healthcare data into information that can help to make informed decisions and predictions.

Coronary Heart Disease (CHD) is the most common type of heart disease, killing over 370,000 people annually. Every year about 735,000 Americans has a heart attack. Of these, 525,000 are a first heart attack and 210,000 happen in people who have already had a heart attack. This makes heart disease a major concern to be dealt with. But it is difficult to identify heart disease because of several risk factors such as diabetes, high blood pressure, high cholesterol, abnormal pulse rate, and many other factors. Because of these factors, scientists have turned towards modern approaches like Data Mining and Machine Learning for predicting the disease.

In this article, I will be applying Data analytics as well as one Machine Learning approach for classifying whether a person is suffering from heart disease or not, using one of the most used dataset — the [Cleveland Heart Disease dataset](https://archive.ics.uci.edu/ml/datasets/Heart+Disease) from the [UCI Repository](https://archive.ics.uci.edu/ml/index.php).

LITERATURE SURVEY:

There is number of works has been done related to disease prediction systems using different machine learning algorithms in medical centres.

Senthil Kumar mohan proposed effective heart prediction using hybrid machine learning techniques in which strategy that objective is to finding critical includes by applying machine learning bringing about improving the exactness in the expectation of cardiovascular malady.The expectation model is created with various blends of highlights and a few known arrangements strategies .we improved exhibition level with hybrid random forest with a linear model(HRFLM) they likewise educated about diverse data mining approaches and expectation techniques such as KNN,LR,SVM,NN and vote have been fairly famous of late to distinguish and predict heart disease .

Sonam nikhar has built up the paper titled as prediction of Heart Disease using machine learning algorithms by this exploration plans to give a point by point portrayal of NaA Bayes and decision tree classifier that are applied in our examination especially in the prediction of heart disease.Some analysis has been led to think about the execution of prescient data mining strategy on the equivalent dataset,and the result uncovers that decision tree beats over Bayesian classification system.

Lakshman roa machine learning techniques for heart disease prediction in which the contributing elements for heart disease are more (circulatory strain, diabetes,current smoker,high cholesterol etc..) so it is difficult to distinguish heart disease .Different systems in data mining and neural systems have been utilized to discover the seriousness of heart disease among people .The idea of CHD aliment is bewildering,in addition ,in this manner,the disease must be dealt with early.Not doing early identification,may impact the heart or cause sudden passing. The perspective of therapeutic science furthermore data burrowing is used for finding various sorts of metabolic machine learning a procedure that causes the work to gain from past information tets,models without being expressly customized machine learning makes rationale dependent on chronicled information.

Aditi gavhane Gowtham kokula Isha pandya prof.kalas devadkar (phD),3.prediction of heart disease using machine learning , in this paper proposed system they used the neural network algorithm multi layer.

Perception (MLP) to train and the test the dataset. In this algorithm there will be multiple layers like one for input second one for output and one are more layers is hidden layers but in these two input and output layers each node input layers is connected to output node through hidden layers the connection is assigned which same weight there another identity input called bias which is the weight b, which added to node to balance the perception the connection between the nodes can bee feed forward or feedback based on the requirements.

CONCLUSION: