

Team ID	PNT2022TMID14141
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dash Board

PROJECT OBJECTIVES

In this modern world, the heart disease prediction is a major challenge.

There are so machines in the medical field for predicting heart disease but the efficiency is not accurate.

Prediction of the heart disease in the early stage can save life of many patients. There are so many cardiologists, but they are not readily available in all emergency situations and sometimes consulting them are expensive sometimes.

Since we have a good amount of data in today's world, we can use various machine learning algorithms to analyze the data for hidden patterns.

The main objective of developing this project are:

- ✓ To develop an application that predicts heart disease with high accuracy.
- ✓ To determine significant risk factors based on medical dataset which may lead to heart disease.
- ✓ To make it accessible to all the patients easily
- ✓ To monitor the health conditions of the patients regularly
- ✓ To reduce the mortality caused by heart disease
- ✓ To alert the patient to take treatment in near by hospital in case of serious issues in heart.
- ✓ To give tips to prevent the heart disease by following proper life style like:
 - I. Exercise regularly
 - II. Proper food style
 - III. Diet chart
 - IV. Check up should be done frequently

The heart Disease diagnosis and heart Disease treatment related information is done by giving symptoms as a query in the search

engine. These symptoms are preprocessed to make the further process easier to find the symptoms keyword which helps to identify the heart Disease quickly. The project helps feature selection for supervised classification tasks can be accomplished on the basis of correlation between features, and that such a feature selection process can be beneficial to a variety of common machine learning algorithms. It is developed and evaluated using common machine learning algorithms on a variety of natural and artificial problems. It eliminates irrelevant and redundant data and, in many cases, improves the performance of learning algorithms. This technical approach provides the higher accuracy of heart disease prediction as compared with other techniques Then the heart Disease will make a differential diagnosis to find the heart Disease accuracy.

Heart Disease is even highlighted as a silent killer which leads to the death of the person without obvious symptoms. The early diagnosis of heart disease plays a vital role in making decisions on lifestyle changes in high-risk patients and in turn reduce the complications. This project aims to predict future Heart Disease by analyzing data of patients which classifies whether they have heart disease or not using machine-learning algorithms

The early prognosis of cardiovascular diseases can aid in making decisions on lifestyle changes in high risk patients and in turn reduce the complications, which can be a great milestone in the field of medicine. The accuracy of the project is very high. Further for its enhancement, we have trained on models and predict the types of cardiovascular diseases providing recommendations to the users, and also use more enhanced models.