

HEART DISEASE PREDICTION BY MACHINE LEARNING

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INTRODUCTION

Heart diseases have emerged to be the leading cause of deaths in India. Learn ways to keep the heart healthy and prevent heart diseases. Heart diseases is the leading cause of deaths in India both across the rural and urban population, according to the **World Atlas**.

OBJECTIVES

The main objective of developing this project are:

- ❑ To develop Machine learning tools to predict future possibility of heart disease by implementing **Ensemble**.
- ❑ To determine significant risk factors based on medical dataset which may lead to heart disease.
- ❑ To analyze feature selection methods and understand their working principle.

FEASIBILITY STUDY

- ▶ The main purpose of the **feasibility study** for this project is to gather the information to develop a heart failure screening and preventing. So, it's basically a screening and prevention program.
- ▶ Nowadays, generally the payable bills of hospitals for any heart treatment are in huge amount, which is a big problem for most of the poor to medium people. So, we have tried to reduce their problem through this project.
- ▶ Here, we are trying to create a system by which we can predict heart disease in early stages so that we can take necessary preventive measures. It will be helpful to save money.

PROGRESS OF THE PROJECT

- ▶ In this project, we will predict heart diseases of a patient by using **Machine Learning** tools. Our project is on the beginning stage.
- ▶ We are trying to determine if a patient should be diagnosed with heart disease or not, which is a binary outcome, so: **Positive result=1**, the patient will be diagnosed with heart disease. **Negative result=0**, the patient will not be diagnosed with heart disease.
- ▶ By implementing ensemble, we get approximately 70%-75% accuracy, which gives comparatively better result in this prediction till now.
- ▶ We are going through this project gradually and trying to implement it in better way as much as possible to get the best result. We will work more on it further. So, it's still in progress.

PROBABLE FUTURE PLAN

- ▶ As our project is on the beginning level, we are going through **Machine Learning** gradually. So, currently we have not much depth idea about it. We want to know more about Machine Learning and will explore as much as possible in the upcoming future.
- ▶ We will look for the accuracy also. We'll try to make this accuracy much better for making our prediction more accurate and giving uniqueness to our project.

THANK YOU