Group Members:

Hasan Berkay Kürkçü

Mustafa Kepenek

Şevval Karadeniz

İsmail Berat Düzenli

Selected Topic: Heart Disease Prediction

AIM OF THE PROJECT

In this Project, we are aiming to foresee future heart diseases taking into account various attributes like age, sex etc. Considering significance of early diagnosis with regards to human health, we believe that aim of this project is of great importance for people.

WHAT ARE WE PLANNING TO DO?

While doing this, we are planning to create multiple machine learning models which will be compared each other afterwards in order to see which model is more accurate, on-point based on the given data.

HOW ARE WE PLANNING TO DO?

We will visualize attributes with regard to AHD, then we will visualize the relationship between certain attributes and AHD. Then, we will analyze how attributes change with respect to the attribute group that we choose. Then, we will visualize the relationship between attribute pairs and analyze whether they cause disease or not. Then, we will divide all attributes into two groups and analyze whether they cause disease or not. We will statistically analyze how different variables such as chest pain, resting blood pressure, cholesterol, age, and sex are related to heart disease. We will build at least two machine learning models for prediction that will make prediction of heart disease with given inputs such as age, sex, chest pain. We will perform some operations in our model to improve performance. We will also handle the missing value situations in our model and discover new approaches to the selected model to investigate their effect on the performance. We

will utilize at least four new features by using additional datasets in machine learning models.

WHAT IS THE EXPECTED OUTPUT OF THE PROJECT?

At the end of the project, we hope to see model that accurately predicts what attributes affect the heart diseases to what extent. Expected output of this project is a machine learning model that will take parameters and will try to predict possibility of a heart disease of possible patients. Which will make diagnosis process of such a disease quicker and more efficient.