[](https://camo.githubusercontent.com/c95bceaa62a9442ddd51d3399e875a691abb337a87351a0bb4caeaed2c54d275/68747470733a2f2f7777772e686663632e6564752f73697465732f6866636d61696e2f66696c65732f6e657773726f6f6d2f70686f746f732f323032322d303131382d6e6f727468776f6f64756e692d363030783434305f302e6a7067)

**Cadiovascular Diseases Prediction**

**MGT 665**

**Prof.Itauma**

**Group Members**

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**Abstract**

The heart disease dataset is a widely studied dataset that contains information about patients with heart disease. The dataset has been used in many studies to develop predictive models that can help diagnose and treat cardiovascular disease. This dataset contains 14 features such as age, sex, chest pain type, resting blood pressure, serum cholesterol, fasting blood sugar, electrocardiographic results, maximum heart rate achieved, exercise-induced angina, ST depression, slope of the peak exercise ST segment, number of major vessels, thalassemia and a binary target variable indicating the presence or absence of heart disease. Many studies have used the heart disease dataset to develop predictive models for cardiovascular disease diagnosis and treatment. Machine learning techniques such as decision trees, artificial neural networks, and logistic regression analysis have been used to develop these models. These studies have identified important risk factors for heart disease, including age, sex, smoking status, and cholesterol levels. The heart disease dataset has proven to be a valuable resource for researchers studying heart disease. The predictive models developed using this dataset have the potential to improve heart disease diagnosis and treatment, leading to better patient outcomes.

**Problem Statement:**

How to build a ML model to identify cardiovascular patient based on their medical history.

**Hypothesis:**

Age,cholesterol,chest pain ,blood pressure ,blood sugar level ,ecg,exercise induced angina, thal resting blood pressure , maximum heart rate achieved , and whether or not they have heart disease .

**Model Architecture :**

Diagram

Description automatically generated

**Model Result**

Random Forest Accuracy: 100.00%

Random forest is the suitable model after checking all the parameters and outcomes.

**Github Link:**

<https://github.com/soumyamallick49/Data-Analytics_Northwood/tree/main/Final_Project_ML>