Heart Attack Risk Prediction and Feature Analysis Project

Problem Statement

We're embarking on a project to predict the risk of a heart attack using the 1988 heart disease dataset. Our primary goal is to develop a robust predictive model while conducting in-depth feature analysis to understand the significance of each attribute in determining the risk of a heart attack.

Central Questions

1. What factors truly impact an individual's susceptibility to a heart attack?
2. Can our predictive model accurately assess the risk of a heart attack using features from diverse databases?
3. What hidden patterns and correlations in the dataset provide valuable insights into the factors contributing to a heart attack?

Context

Heart attacks are a significant health concern globally, emphasizing the need for early intervention. This project aims to leverage a diverse dataset to unravel the complex relationships between various attributes and the risk of a heart attack.

Criteria for Success

Success in this project is defined by our ability to build a reliable predictive model, identify key features influencing heart attack risk, and effectively communicate these findings. The project aims to contribute valuable insights for proactive prevention measures.

Scope of Solution Space

The project involves exploring correlations, building predictive models, and conducting feature analysis to deepen our understanding of heart attack risk factors. The focus is on generating actionable insights for proactive prevention measures.

Constraints

While the dataset provides valuable information, there may be missing details and a lack of descriptions for some attributes. Additionally, certain demographic factors might not be included, limiting our analysis.

Stakeholders

Healthcare professionals and individuals seeking proactive measures to prevent heart attacks stand to benefit from our accurate predictive model and insightful feature analysis.

Data Source

The dataset is sourced from Kaggle, containing diverse attributes, from demographics to medical history and diagnostic results, providing a rich source for analysis.