Team: 5

Project: Predicting Heart Disease

This repository hosts a predictive modeling project developed as part of our coursework. The project explores various machine learning algorithms. The goal is to implement and compare different algorithms to assess their performance in predicting outcomes based on historical data. The dataset, sourced from Kaggle, provides a foundation for implementing and testing a variety of models.

Algorithms Implemented:

- **Logistic Regression** – A foundational statistical model for binary classification problems, particularly useful for interpreting feature importance.
- **Gradient Boosting Machine (GBM)** – An ensemble technique known for its high accuracy in structured data and strong resistance to overfitting.
- **Neural Networks** – A powerful model capable of recognizing complex patterns and handling intricate relationships within data.
- **Random Forest** – An ensemble method that aggregates multiple decision trees to boost predictive accuracy and reduce overfitting.

This project highlights the practical application of these algorithms, demonstrating their strengths and potential trade-offs in predictive modeling.