 CANTILEVER AIML PROTERNSHIP 2025

**ABSTRACT**

# Project Title:

Heart Disease Prediction using Machine Learning

# Team Details:

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| **S.No** | **Name** | **Roll No** |
| 1 | Varnit Kolakotla | 23R11A0525 |
| 2 | Sreekar Sarma Telakapalli | 23R11A0536 |
| 3 | Addepalli Sharan Kumar Raju | 23R11A05U8 |

## Abstract:

Heart disease remains one of the leading causes of mortality worldwide. Early prediction and diagnosis can significantly improve patient outcomes and reduce healthcare costs. In this project, we developed a machine learning-based predictive model to identify individuals at risk of heart disease using clinical and demographic data.

We utilized a publicly available dataset containing features such as age, gender, chest pain type, blood pressure, cholesterol levels, and more. After preprocessing the data—handling categorical variables, normalizing features, and splitting it into training and testing sets.

The models were evaluated using metrics like accuracy, precision to determine their effectiveness. Among the tested algorithms, dataset from DAVID LAPP which contains the data set dates from 1988 and consists of four databases: Cleveland, Hungary, Switzerland, and Long Beach V showed the highest predictive performance.

To make the system interactive and user-friendly, we deployed the model using Streamlit, allowing users to input patient data and receive real-time predictions about heart disease risk.

This project demonstrates how AI/ML can be leveraged for preventive healthcare, enabling early intervention and better clinical decision-making.

## Keywords:

Heart Disease Prediction, Machine Learning, Clinical Data, Streamlit, Predictive Modeling, Preventive Healthcare.