**PROJECT CODE: 2024-P05**

**Title : Prediction of Heart Diseases Using Machine Learning Algorithms**

**Abstract**

**Novelty Added in this Project : Implementation of Logistic Regression and Random Forest Classifier models.**

Heart disease has become one of the leading causes of mortality worldwide, necessitating the development of reliable detection systems to diagnose the disease at an early stage and enable timely treatment. This project aims to leverage machine learning algorithms to create an effective and efficient heart disease prediction model. By applying advanced supervised learning techniques such as **Logistic Regression, Support Vector Machines (SVM), K-Nearest Neighbors (KNN), Naive Bayes, Decision Trees, and Random Forests to large and complex medical datasets,** the healthcare industry can significantly enhance its diagnostic capabilities.

The proposed models are evaluated based on their accuracy in detecting heart disease, contributing valuable insights and tools for medical professionals. This project underscores the importance of integrating machine learning into healthcare to improve early detection and treatment outcomes for heart disease, ultimately aiming to reduce the global burden of this life-threatening condition. The findings suggest that these machine learning models can play a crucial role in predictive analytics for heart disease, offering a promising approach to enhance patient care and save lives.