**Project Status Report**

**Title Name: Selecting the most effective ML algorithm and Data Handling technique to improve the accuracy of Heart Disease Prediction.**

**Title Name Change (if any):**

**Abstract of the work:**

**Cardiovascular diseases remain a critical global health concern, necessitating accurate and efficient predictive models for timely diagnosis and intervention. Furthermore, a suite of classification algorithms – Logistic Regression, Naive Bayes, K-Nearest Neighbors, and Decision Trees – is employed to build predictive models. Each algorithm is trained on the resampled datasets, and their performance is assessed using appropriate evaluation metrics for imbalanced data, such as precision, recall, F1-score, and area under the ROC curve (AUC-ROC). The comparative analysis of model performance before and after applying data handling techniques reveals significant enhancements in predictive accuracy, particularly for the underrepresented class. This underscores the critical role of addressing class imbalance in achieving reliable and effective heart disease prediction.**

**Student Batch Details:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Roll Number** | **Student Name** | **Date** | **Remarks (will be filled by guide)** |
| **2111CS020620** | **CH Varshith** | **01/09/2023** |  |
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**Guide Sign HoD Sign**