Classification of Arrhythmia using ECG Data.

Group no: 15

Group Members:

Name	Section	Roll No
Shivani Chauhan	A	181500678
Sachi Tripathi	A	181500598
Sarvesh Kumar Sharma	A	181500625
Satyam Kumar Jha	A	181500627

Objective: To distinguish between the presence and absence of cardiac arrhythmia and to classify it in one of the 16 groups. For the time being, there exists a computer program that makes such a classification. However, there are differences between the cardio log's and the programs classification. Taking the cardio log's as a gold standard we aim to minimize this difference by means of machine learning tools.

Dataset:

This data is extracted from the UCI Repository available at:

https://archive.ics.uci.edu/ml/datasets/Arrhythmia

The following is a description of our dataset:

- **of attributes (Columns):** 280
- **of instances (Rows):** 452

Expected Algorithm:

- Logistic Regression
- Tree classifiers
- Support Vector Machines (SVM)
- Naive Bayes
- Random Forest
- KNN

Expected Outcome: Prediction and classification of Cardiac Arrhythmia with maximum accuracy.

Application: These machine learning techniques can be deployed in hospitals where a large dataset is available and can help the doctors in Diagnosis of Cardiac Arrhythmia and to cut down the number of causalities due to heart diseases in the future.