Data Collection and Preprocessing Phase

Date	21 June 2025
Project Title	**Arrhythmia Classification with Deep Learning and 2-D ECG Images**
Maximum Marks	2 Marks

Data Collection Plan & Raw Data Sources Identification Report:

Elevate your data strategy with the Data Collection plan and the Raw Data Sources report, ensuring meticulous data curation and integrity for informed decision-making in every analysis and decision-making endeavor.

Data Collection Plan

Section	Description
Project Overview	The project aims to develop a deep learning-based solution for automated arrhythmia classification from ECG data. Using a proprietary dataset of 2D spectral images derived from ECG signals, the objective is to build a robust model that accurately classifies different types of arrhythmias, supporting clinicians in timely and effective diagnosis.
Data Collection Plan	- The ECG data was collected internally as part of ongoing clinical operations and device monitoring. - All data was gathered with proper patient consent and in compliance with relevant data privacy regulations. - The raw data consists of 2D spectral images (PNG/JPG) generated from ECG signals, each labeled with the corresponding arrhythmia class by clinical experts. - Data is organized in class-wise folders for training and testing. - Data is securely stored on the company's internal servers/cloud.

Raw Data Sources Report:

Source Name	Description	Location/URL/Path	Format	Size	Access Permissions
Internal ECG Dataset	Proprietary ECG spectral images labeled by clinical experts	https://drive.google.com/file/d/16EnEXeHJXmV-8qnfswmrVQ6nyHOwi93D/view?usp=sharing	A zip folder containing the images in PNG format	33.3 MB(zip)	Restricted (internal only)