Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID23017
Project Name	Project - Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application e.g.Web UI, Mobile App.	HTML, CSS, JavaScript / Angular Js / React Js
2.	Application Logic-1	The logic for a process in the application	Python
3.	Application Logic-2	It's a symbolic math toolkit that performs a variety of tasks including deep neural network training and inference using dataflow and differentiable programming	Tensorflow
4.	Cloud Database	A global technology company that provides hardware, software, cloud-based services and cognitive computing.	IBM Cloud
5.	File Storage	Breaks up data into blocks and then stores those blocks as separate pieces, each with a unique identifier.	IBM Cloud

6	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
7	External API-2	Purpose of External API used in the application	Aadhar API, etc.
8	Machine Learning Model	Object recognition is a subfield of computer vision, artificial intelligence, and machine learning	Object Recognition Model.
9	Deep learning Model	The images from the created dataset are fed into a neural network algorithm.	Image Recognition Model

Table 2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Building user interfaces based on UI components.	React Js
2.	Security Implementations	OWASP is a non-profit foundation that works to improve the security of software.	OWASP
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3-tier architecture
4.	Availability	Justify the availability of applications (e.g. use of load balancers, distributed servers, etc.)	Distributed Server
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDNs) etc.	Cache

FLOW:-{BLOCK DIAGRAM}