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

Date	04 November 2022
Team ID	PNT2022TMID43406
Project Name	Project - Classification of types of Arrhythmias using CNN model and Deep Learning.
Maximum Marks	4 Marks

Technical Architecture:

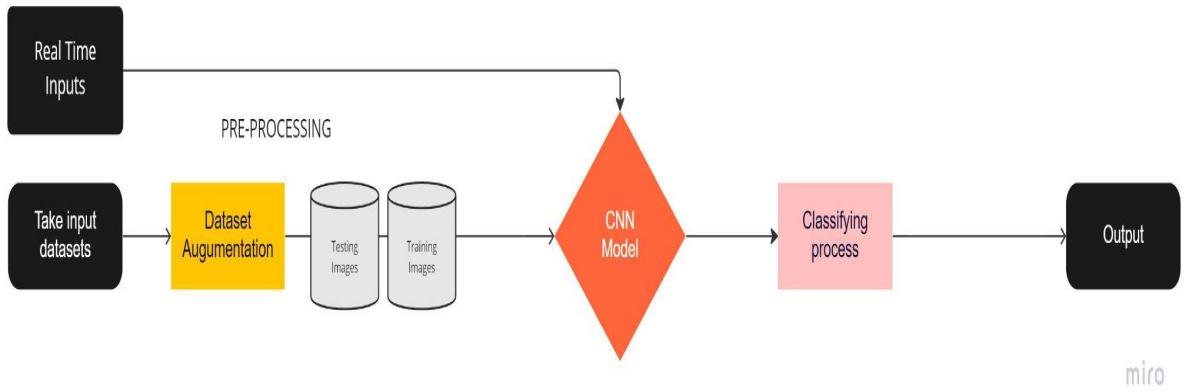

Table-1: Components and Technologies:

S.No	Components	Description	Technology
1.	Application Logic 1	Logic for a process in the application	Python, Flask
2.	Application Logic 2	Logic for a function in the application	IBM Watson service
3.	Application Logic 3	Logic for a process in the application	IBM Watson service
4.	Database	Datatype and other configurations	Numpy (Convolution)
5.	Cloud Database	Database service on Cloud	IBM Cloudant, etc
6.	External API	External API used in application	IBM API
7.	Machine Learning Model	Purpose of Machine Learning	Recognition model and such
8.	Infrastructure	Application Development	Local, cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Deep learning framework trains on provided datasets and gives out predictive results with accuracy and precision.	TensorFlow
2.	Security Implementations	System should contain data regarding health conditions and must be able to take images uploaded to process them.	Flask
3.	Scalable Architecture	The system must be able to handle different types of images and must figure out all the conditions accurately.	Data Augmentation-Keras
4.	Availability	There should be open information about the Arrhythmia types for anyone who wants to access it.	Flask
5.	Performance	Should reduce human errors.	CNN