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

Date	03 October 2022
Team ID	PNT2022TMID20748
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

Example: Order processing during pandemics for offline mode

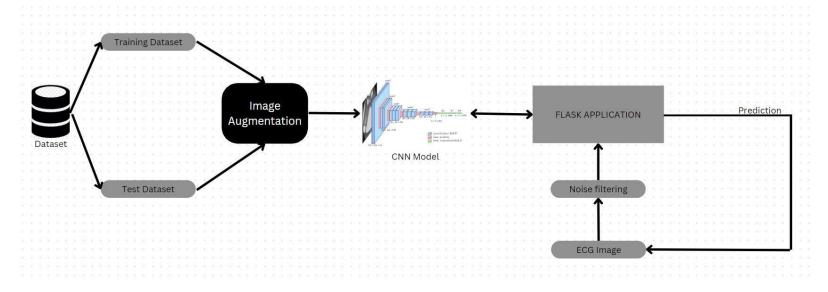


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user can interact via the web interface	HTML, CSS, JavaScript
2.	Splitting of training and test dataset	The dataset will be split into training and testing dataset.	Python, Keras.
3.	Image Augmentation	Image Augmentation will be done on the training dataset.	Python, ImageDataGenerator.
4.	CNN Model	The core image processing will be done in the developed CNN model.	Python, Tensorflow

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Angular JS and other open-source tools
2.	Security Implementations	List all the security / access controls implemented,	e.g. SHA-256, Encryptions, IAM
		use of firewalls etc.	Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier,	AWS
		Micro-services)	
4.	Availability	Justify the availability of application (e.g. use of	Database applications
		load balancers, distributed servers etc.)	
5.	Performance	Design consideration for the performance of the	Performance metrics analyzers, SEO
		application (number of requests per sec, use of	tools
		Cache, use of CDN's) etc.	