Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	19 september 2022
Team ID	PNT2022TMID03100
Project Name	Project - Classifica on of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representa on
Maximum Marks	4 Marks

Classifica on of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representa on
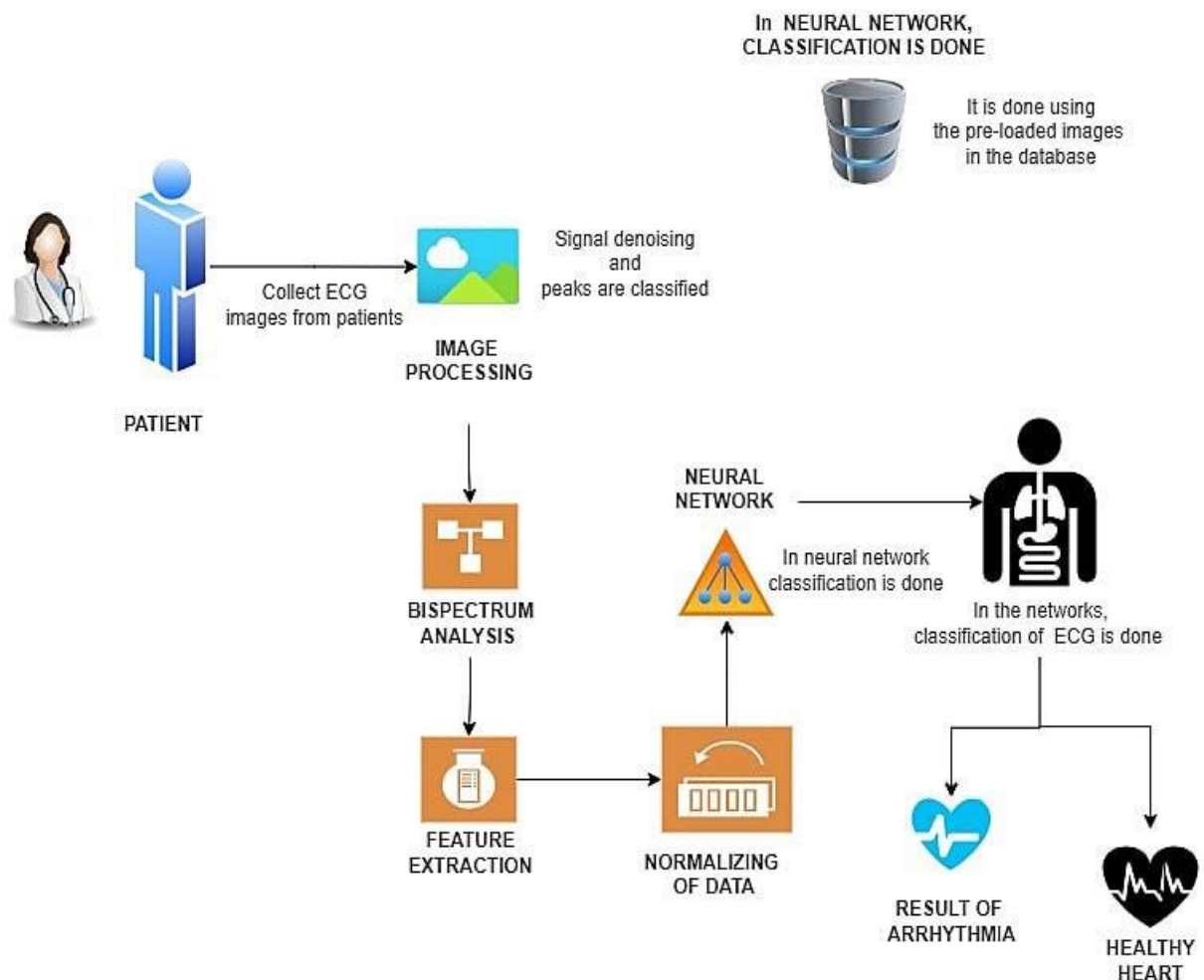
Table-1 : Components & Technologies:

S.No	Component	Descrip on	Technology
1.	User Interface	How user interacts with applica on e.g. Web UI, Mobile App	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Applica on Logic-1 Deep learning	Logic for a process in the applica on	Python
3.	Applica on Logic-2 RNN,CNN	Logic for a process in the applica on	IBM Watson STT service
4.	Applica on Logic-3	Logic for a process in the applica on	IBM Watson Assistant
5.	Database	Data Type, Configura ons etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the applica on	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the applica on	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recogni on Model, etc.

11.	Infrastructure (Server / Cloud)	Applica on Deployment on Local System / Cloud Local Server Configura on: Cloud Server	Local, Cloud Foundry, Kubernetes, etc.
		Configura on :	

Table-2: Applica on Characteris cs:

S.No	Characteris cs	Descrip on	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementa ons	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryp ons, IAM Controls, OWASP etc.
3.	Scalable Architecture	Jus fy the scalability of architecture (3 – er, Micro-services)	Technology used neural networks, gradient trees.
4.	Availability	Jus fy the availability of applica on (e.g. use of load balancers, distributed servers etc.)	Technology used Resource Based (Adap ve) load balancing methodology used
5.	Performance	Design considera on for the performance of the applica on (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used CNN,K-map,RNN.