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

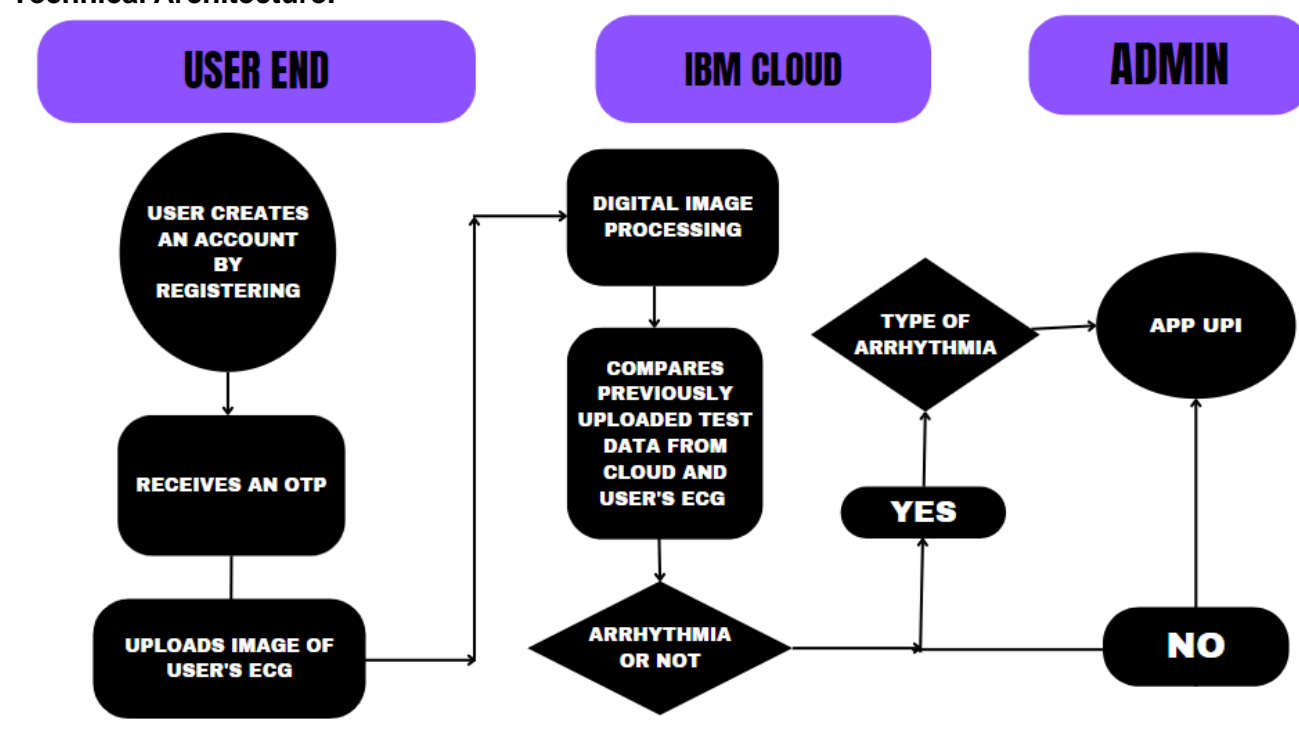| Date	03 October 2022
Team ID	PNT2022TMID00351
Project Name	Project – Classification of Arrhythmia By Using Deep Learning With 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web App	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage
8.	External API-1	Purpose of External API used in the application	Contact information API
9.	External API-2	Purpose of External API used in the application	Image recognition API
10.	Machine Learning Model	Purpose of Machine Learning Model	Electrocardiogram pattern recognition model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Cloud Foundry, Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Kubernetes, Anaconda
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Google cloud vision API
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used

S.No	Characteristics	Description	Technology
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used