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

Date	15 October 2022
Team ID	PNT2022TMID16055
Project Name	Classification Of Arrhythmia By Using Deep Learning With 2-D ECG Spectral Image Representation
Maximum Marks	4 Marks

Technical Architecture:

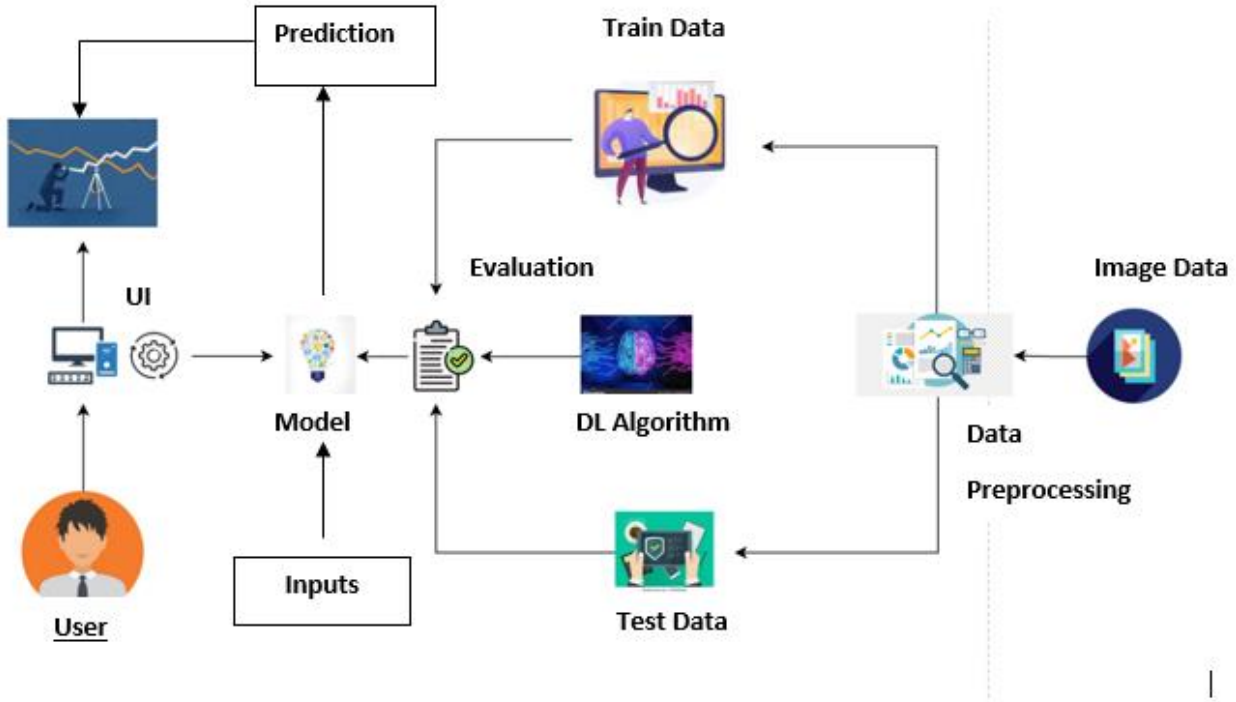

Table-1: Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	IBM cognos Analytics- Reporting user interface	AI,Python
2.	Application Logic-1: Presentation Layer	It is the user interface and communication layer of the application, where the end user interacts with the application. Its main purpose is to display information to and collect information from the user.	Python. Desktopapplications can be written in a varietyof languages depending on the platform.
3.	Application Logic-2 : Model Tier	Information collected in the presentation tier is processed - sometimes against other information in the data tier - using business logic, a specific set of business rules.	Python, Convolutional Neural Networks (CNNs) communicates with the data tier using API calls.
4.	Application Logic-3 : Data Evaluation	The data tier, sometimes called database tier, data access tier or back-end, is where the information has been evaluated by the CNN algorithm.	IBM Watson Assistant, Cognos Analytics,CNN
5.	Database	We are using the data collection and storage through the training of machine learning models, or to deploy real-time prediction endpoints	IBM cloud,IBM watson studio
6.	Data Preprocessing	The data is gathered from different sources it is collected in raw format which is not feasible for the analysis.	Raw data set,IBM cloudant DB

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks used : IBM Watson Studio, Cognos Analytics	IBM Cognos platform
2.	Security Implementations	Security / access controls implemented by the use of Security Access Manager	IBM security service
3.	Scalable Architecture	IBM Informix can be customize to create the appropriate high availability and scalability	IBM Informix
4.	Availability	Secondary server shares the disks with primary servers instead of remote stand-alone secondary server	High-availability clusters
5.	Performance	Creating server groups for advanced dispatcher routing and Balancing Dispatcher with load balancing property and also with maximum no of processors which increases performance.	IBM Websphere