PROJECT DESIGN PHASE – II

Technical Architecture:

DATE	**03 November 2022**
TEAM ID	**PNT2022TMID25907**
PROJECT NAME	**A Gesture - Based Tool for Sterile Browsing of Radiology Ideations Images**
MAXIMUM MARKS	**4 Marks**

TECHNICAL ARCHITECTURE:

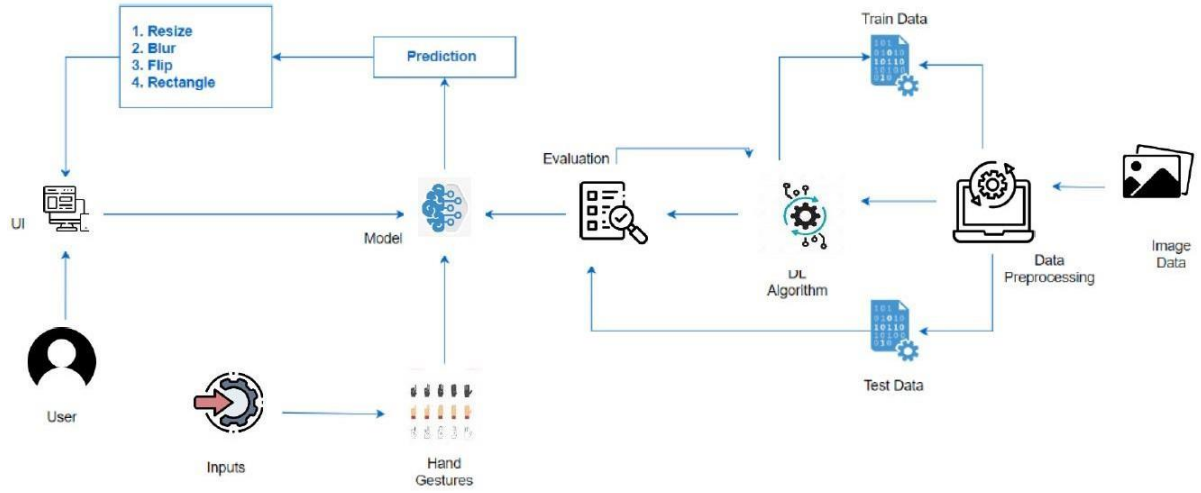

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How client cooperates with application for example Web UI, Versatile Application, Chatbot and so on.	HTML, CSS, JavaScript / Angular JS / React JS etc.
2.	Application Logic-1	Variety of frameworks, libraries and Supports are required to develop the project	Java / Python
3.	Application Logic-2	Assists with changing over the hand signs and hand motions into the composed words to surf on the web and speak with PC.	IBM Watson STT service

4.	Application Logic-3	Gives quick, consistent and precise responses in the wake of perceiving the human hand motions and signs.	IBM Watson Assistant
5.	Database	It can be numerical, categorical or time-series data	MySQL, NoSQL, etc.
6.	Cloud Database	Empowers the client to utilize have data set without purchasing the extra equipment	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage should be highly flexible, scalable, effective, fast and reliable.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Used to access the information in the cloud	IBM Weather API, etc.
9.	External API-2	Used to access the information for data driven decision making	Aadhar API, etc.
10.	Machine Learning Model	Machine Learning Model deals with various algorithms that are needed for the implementation	Image Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Install the windows version and execute the installer.	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The frameworks used in the project are	Tensor flow, Theano, RNN, pytorch, Flask
2.	Security Implementations	The security / access controls are implemented using firewalls etc..	Firewall and other security related software's.
3.	Scalable Architecture	the scalability of architecture (3 – tier, Microservices)	Data, models, operate at size, speed, consistency and complexity
4.	Availability	the availability of application (e.g., use of load balancers, distributed servers etc.)	Image and facial recognition, speech recognition and real time captioning.
5.	Performance	Design aspects for the performance of the application (number of requests per second, use of Cache, use of CDN's) etc	Full and effective participation, equality of opportunity, accessibility, using machine learning for communication.