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

Date	24October 2022
Team ID	PNT2022TMID10032
Project Name	Project - A Gesture- based tool for sterile browsing of Radiology Images
Maximum Marks	4 Marks

Technical Architecture

The architectural diagram of the model is as below and the Technology used is shown in table1 & table 2

A Gesture- based tool for sterile browsing of Radiology Images

References: https://www.researchgate.net/publication/351035037_Creating_domain_specific_chatbot_using_IBM_Watson

Technical Architecture:

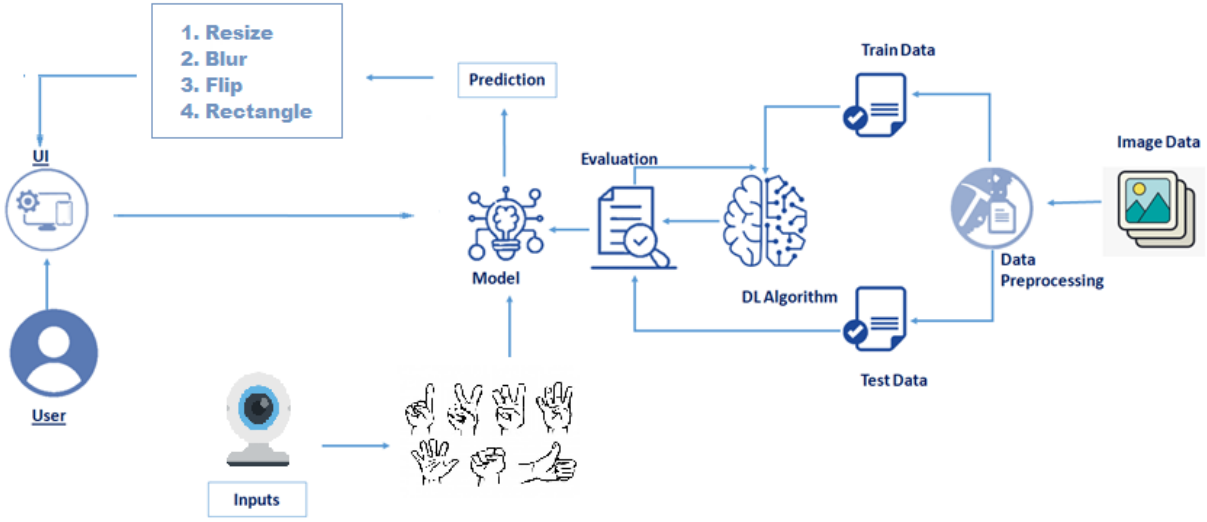

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI..	HTML, CSS, JavaScript.
2.	Application Logic-1	Upload image in an application	Python
3.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
4.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
5.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.
6.	Convolutional Neural Network	Initialize the model	CNN Layer

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Tensor flow,Theano, RNN, pyTorch, Flask
2.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Firewall and other security related softwares
3.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Data, models, operate at size, speed, consistency and complexity
4.	Performance	The system responds to the user in a second and the hardware and software works well	Image and facial recognition, speech recognition and real time captioning

References:

https://www.ibm.com/cloud/architecture