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

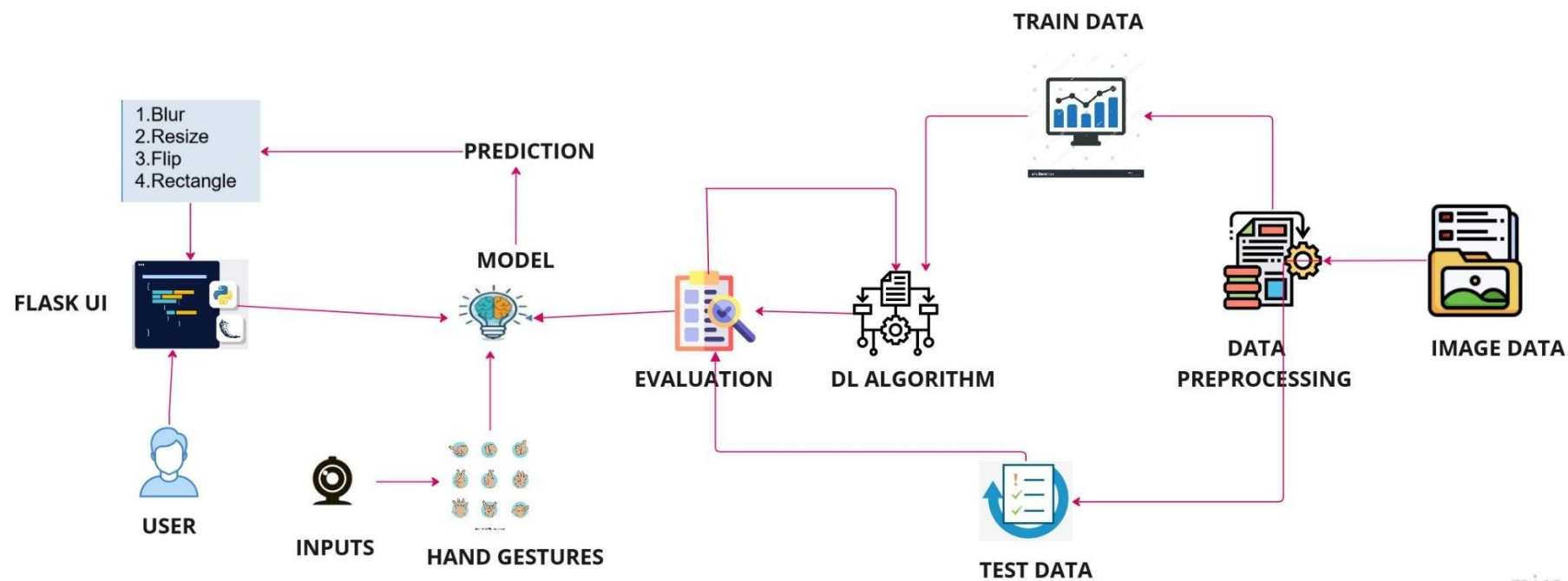| Date	15October2022
Team ID	PNT2022TMID07081
Project Name	Project – A Gesture based tool for sterile browsing of Radiology images
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, JavaScript
2.	Dataset	Collect or create the hand gesture dataset	From Online
3.	Application Logic-1 – Data pre-processing	Import all the library files required for data pre-processing	Python
4.	Application Logic-2-Model Building	Build the CNN model	Python
5.	Application Logic-3-Application Building	Create HTML File	HTML, CSS, Javascript.
6.	File Storage	Store the code files and datasets	System Storage
7.	Deep Learning	Used to analyse visual imagery, image processing, video capture and analysis including features like face detection and object detection.	CNN, Opencv
8.	Cloud database	Train the model on IBM cloud	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Application development, data pre-processing.	Visual studio code, anaconda navigator.
2.	Security Implementations	It identify the gesture action only when the hand is in front of the camera.	Opencv
3.	Scalable Architecture	It can be used in any environment and is able to identify the gesture actions in both bright and dim backgrounds. It can recognize the gesture action upto 5 meters distance between the camera and person.	Opencv
4.	Availability	It is used to reduce the possibility of spreading infections, avoid the delay and the focus of doctors on surgery is improved.	Artificial Intelligence
5.	Performance	Rapid response to the gesture actions.	CNN model