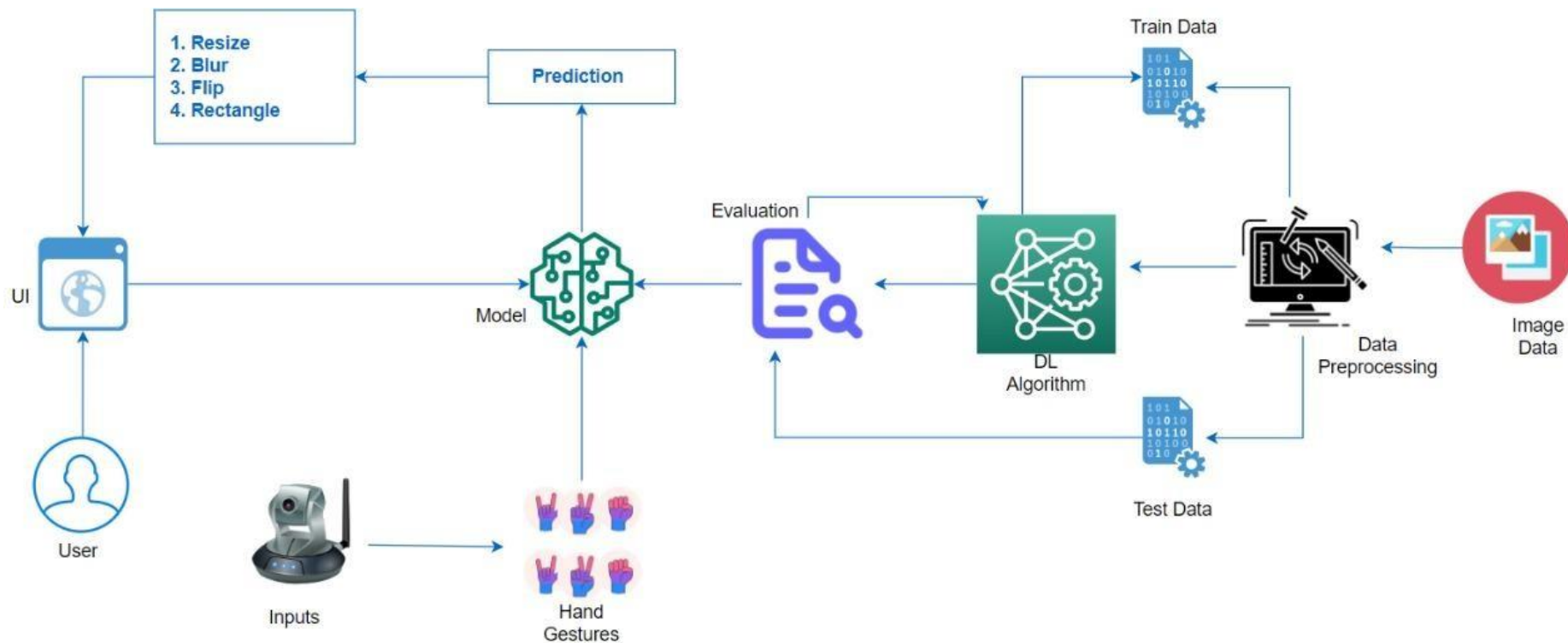


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID34850
Project Name	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	UI ( Web )	HTML, CSS, JavaScript.
2.	Application Logic-1 Image Pre-processing	Input image is pre-processed with the help of library files.	Python, TensorFlow
3.	Application Logic-2Building Model	Building CNN model to recognize the gesture.	Python, Keras
4.	Application Logic-3Creation of app	App is built to obtain gesture as input and to provide as output.	HTML, CSS, JavaScript
5.	Dataset	Hand gesture data set.	From IBM
6.	Cloud Database	User input image is stored in cloud.	IBM Cloud
7.	File Storage	File storage contains dataset and source code.	Device or Drive
8.	Machine Learning Model	CNN Model was used to recognize the pre-processed image by image capturing or by video segmenting.	CNN Model by Python, Keras

**Table-2: Application Characteristics:**

<b>S.No</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology</b>
1.	Open-Source Frameworks	Application development, data pre-processing.	Visual studio code, Anaconda navigator, TensorFlow
2.	Security Implementations	It identifies the gesture only when the hand is infront of the camera.	OpenCV
3.	Scalable Architecture	It can be used in any environment and is able to identify the gesture	OpenCV
4.	Availability	It is used to reduce the possibility of spreadinginfections	AI
5.	Performance	Rapid response to the gesture.	CNN