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

Date	8 November 2022 2022
Team ID	PNT2022TMID08443
Project Name	Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Technology Architecture
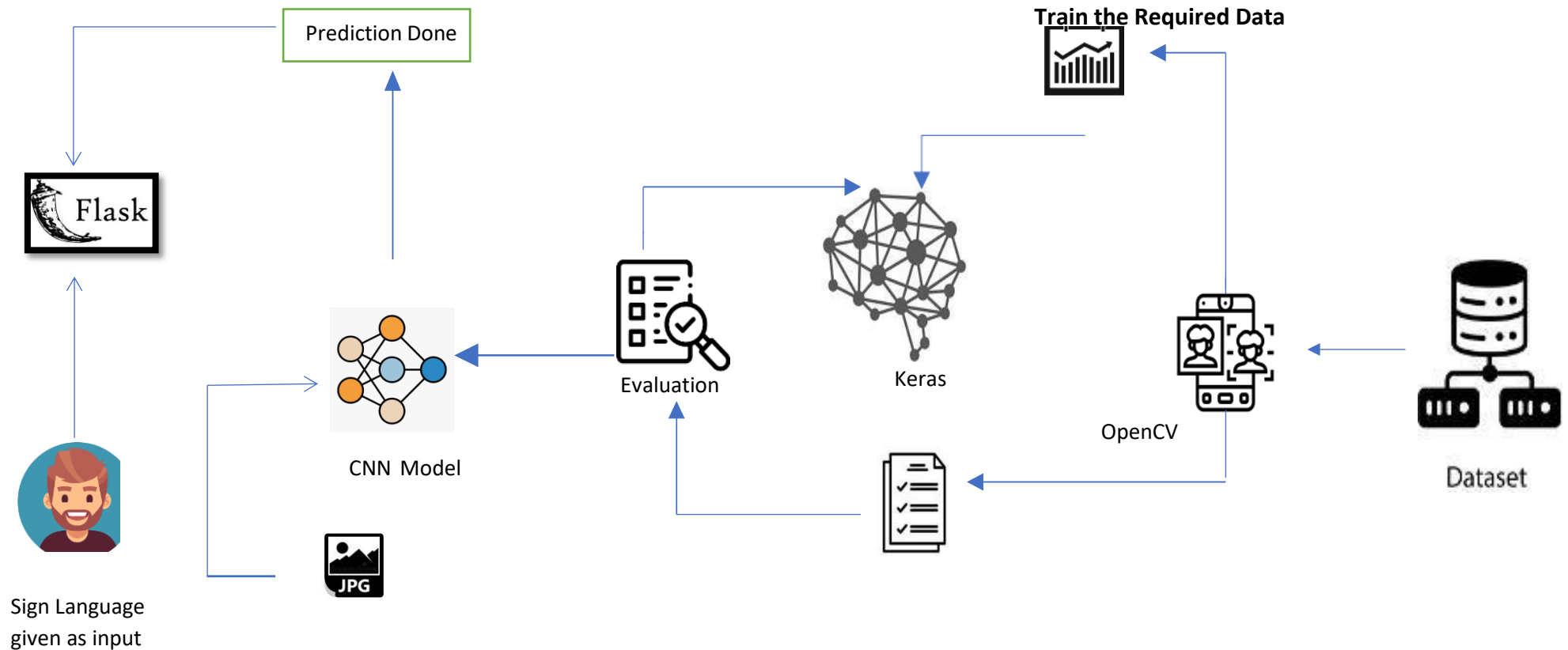
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the application through uploaded image or live video feed.	Flask, HTML, CSS,
2.	Application Logic-1	The captured video is converted into grey scale frame by frame.	Python
3.	Application Logic-2	The obtained text is converted into voice	IBM Watson service
4.	Database	Data Type – Images of different sign languages	MySQL
5.	Cloud Database	Database Service on Cloud	IBM Cloud
6.	Machine Learning Model	The main purpose is to train the neural network to recognize sign languages	Sign Recognition Model
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System	Local

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask, HTML
2.	Availability	Frontend is user friendly and available to all	CSS, Flask

S.No	Characteristics	Description	Technology
3.	Performance	Depends on how large the video is taken	Open CV, Keras