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

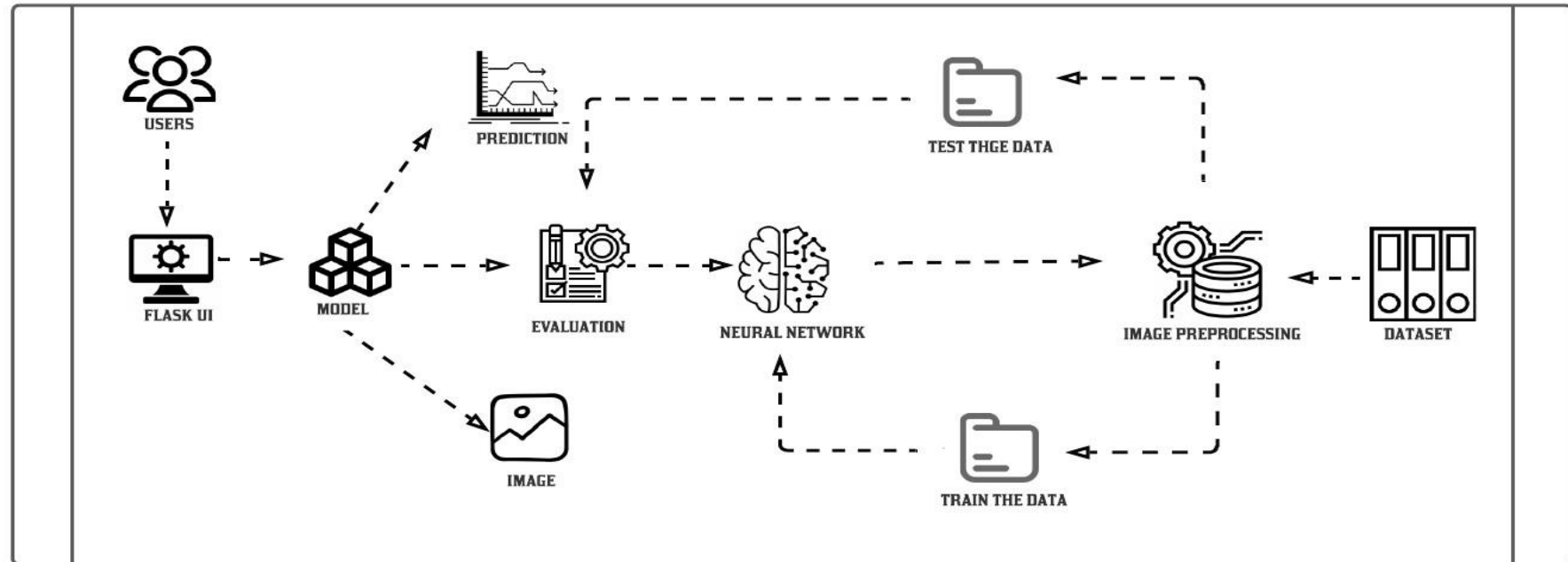| Date	14 October 2022
Team ID	PNT2022TMID23882
Project Name	Real-Time Communication System Powered By AI For Specially Abled
Maximum Marks	4 Marks

TECHNICAL ARCHITECTURE

Table-1: Components and Technology

S.No	Component	Description	Technology
1.	User Interface	Interact with content or software running on a remote server through a web browser. e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Speech into sign language	Java / Python
3.	Application Logic-2	Speech to readable language	IBM Watson Assistant
4.	Application Logic-3	Sign language to speech	IBM Watson STT Service
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Provides access to a database without requiring the setup of physical hardware, the installation of software or the need to configure the database.	IBM DB2, IBM Cloudant etc.
7.	File Storage	It stores data in a hierarchical structure. The data is saved in files and folders, and presented to both the system storing it and the system retrieving it in the same format.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API	An external or open API is an API designed for access by a larger population as well as web developers.	IBM Weather API, etc.
9.	Machine Learning Model	A machine learning model is a file that has been trained to recognize certain types of patterns.	Object Recognition Model, etc.

10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.
		A server configuration defines a specific database as the repository for its data.	
		Local Server Configuration: Serves a client within the local network or LAN.	
		Cloud Server Configuration: Process of setting hardware and software details for elements of a cloud environment to ensure that they can interoperate and communicate.	

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	It is a open-source which enables rapid development of secure and maintainable websites	Django
2.	Security Implementations	Technical tools and techniques that are used to implement security services. A mechanism might operate by itself, or with others, to provide a particular service	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Supports higher workloads without any	Devops

S.No	Characteristics	Description	Technology
		fundamental changes to it.	
4.	Availability	Measure used to evaluate whether an application is functioning properly and usable to meet the requirements of an individual or business.	Conferencing Technology
5.	Performance	Indicates how the app is functioning and how responsive the app is to the end-user.	Natural Language Processing