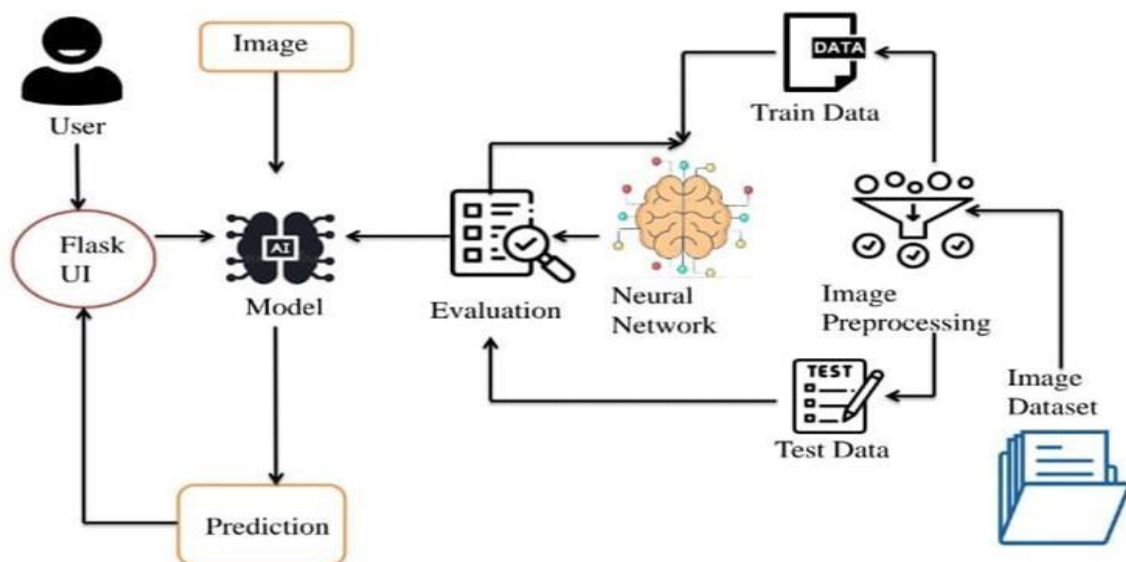# Project Design Phase – 2

Technology Stack (Architecture & Stack)

TEAM ID	PNT2022TMID10824
PROJECT TITLE	Real Time Communication System Powered by AI.
DATE	15 November 2022
MARKS	4 Marks

Technical Architecture

The Deliverable shall include the architecture diagram as below and the information as per the table1 & table2 **References**

https://medium.com/the-internal-startup/how-to-draw-useful-technicalarchitecture-diagrams-2d20c9fda90d **Guidelines**

1. Include all the processes (As an application logic / Technology Block).
2. Provide infrastructural demarcation (Local / Cloud).
3. Indicate external interfaces (third party API' s etc).
4. Indicate Data Storage components / services .
5. Indicate interface to machine learning models (if applicable).

Table-1: Components & Technologies:

S. No	Component	Description	Description Technology
1	User Interface	How user interacts with application E g; Art Intelligence (AI or Computational intelligence).	Sign language, speech recognition and machine vision .
2	Application Logic-1	Use of a convolution neural network to model that is trained on different land gestures.	Python / CNN/python flask IBM Watson /cloud.
3	Application Logic-2	An apps built which use of this model deaf and dumb people.	IBM Watson /cloud
4	Application Logic-3	To develop a system that coverts the sign language into a human hearing voice to convey to normal people.	IBM Watson studio/ deep learning.
5	Database	Data type , configuration etc.	IBM cloud DS .
6	Cloud Database	Access google cloud SQL	Cloud based virtual machine.
7	File Storage	IBM cloud hear / dumb .	Network storage data .
8	External API-1	Many Use case fetching data flow external AP1	HTTP request 3rd party system.
9	External API-2	Encapsulation API	Java script

| 10 | Machine Learning Model | Form of AI makes prediction from data. | IBM cloud /neural network deep learning . |
| 11 | Server/cloud Infrastructure | Compulsory process networking , and storage to access virtual resources. | To build a cloud |

Table -2 Application Characteristics:

S.no	Component	Description	Description Technology
1	Open-Source Frameworks	Google tensor flow open,source software frame work for building a using machine learning neutral networks.	Python /deep learning / PYCHARM
2	Security Implementations	Build a information security team manage issues.	CYBER security and attacks.
3	Scale Architecture	Ability to algorithms data model to operate size of speed and complexity.	Financial and organization process AI system.
4	Availability	Inherent availability (AI)	Information assurance.
5	Performance	Demanded or expected to be full filled by an attributes .	To focus on factual information and carry out employee performance reviews.