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

| Date | 16October 2022 |
|---------------|---|
| Team ID | PNT2022TMI22395 |
| Project Name | Real time communication system powered by AI for specially disabled |
| Maximum Marks | 4 Marks |

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

Example: Real time communication system powered by AI for specially disabled

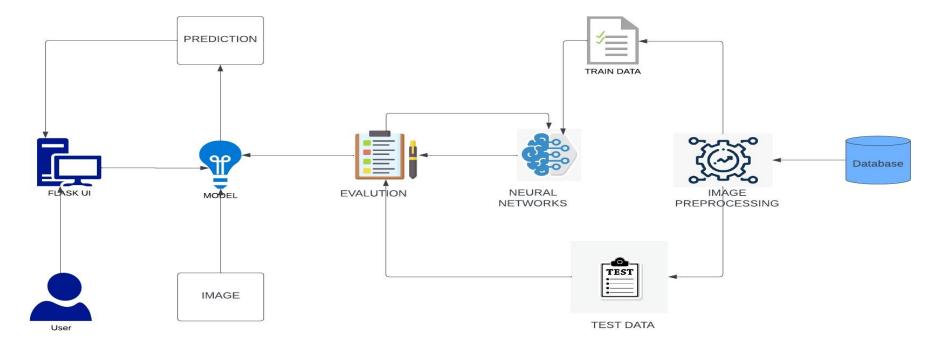


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|------------------------|---|---|
| 1. | User Interface | The user interface is the point of human computer interaction and communication in device | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | Converting speech into sign language | Java / Python |
| 3. | Application Logic-2 | Converting sign language to speech | IBM Watson STT service |
| 4. | Application Logic-3 | Converting speech to readable content | IBM Watson Assistant |
| 5. | Database | Data Type, Configurations etc. | MySQL, Rational database etc. |
| 6. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 7. | File Storage | Methodology used to organize and store data on a computer hard drive | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API | Defines communication between normal people and deaf people | IBM Weather API, etc. |
| 9. | Machine Learning Model | Training | Object Recognition Model, etc. |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|---|---|
| 1. | Open-Source Frameworks | List the open-source frameworks used | Technology of Opensource framework |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Devops |
| 4. | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | Conferencing technology |
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | NLP |