



Table-1 : Components & Technologies:

| S.No | Component                       | Description  | Technology                             |
|------|---------------------------------|--|--|
| 1.   | User Interface                  | Customer have to login through their respective website or phone number. Then interaction will happen with the User interface.       | javascript, CSS,HTML                   |
| 2.   | Application Logic-1             | It requires various types libraries, frameworks to develop the project   | Java / Python                          |
| 3.   | Application Logic-2             | Helps to converting the human gestures/actions into written words.   | Machine learning                       |
| 4.   | Application Logic-3             | Provides helpful,feasible answers after recognising the human gestures.  | ANN,CNN                                |
| 5.   | Database                        | Data could be numbers or words.  | MySQL, Rational database               |
| 6.   | Cloud Database                  | Providing customer to use host database without buying additional hardware..   | Deep learning and neural networks      |
| 7.   | File Storage                    | File storage could be fast, reliable and flexible..  | Local file system                      |
| 8.   | External API-1                  | Used to access the information in the cloud  | Weather API                            |
| 9.   | External API-2                  | Used to access the information for data driven decision making...  | Aadhar API                             |
| 10.  | Machine Learning Model          | Machine learning interact with various algorithms that are required for implementation.  | Image acquisition                      |
| 11.  | Infrastructure (Server / Cloud) | Application deployment on local system /local cloud server configuration.<br>Install the windows version and execute the installer.. | Local, Cloud Foundry, Kubernetes, etc. |

Table-2: Application Characteristics:

| S.No | Characteristics          | Description  | Technology   |
|------|--------------------------|--|--|
| 1.   | Open-Source Frameworks   | The framework which are used.  | Tensor flow, Theano, RNN, PyTorch  |
| 2.   | Security Implementations | Security controls which can implemented by using firewall..  | Firewall and some security related softwares..   |
| 3.   | Scalable Architecture    | The architecture will be scalable (Micro services).  | Data, models, speed and consistency..  |
| 4.   | Availability             | The availablity of application ( use of load balancers, distributed servers etc)                       | Image recognition, sign/gestures recognition, text recognition & real time captioning..                              |
| 5.   | Performance              | Design aspects for the performance of application ( number of requests per second, use of cache etc.., | Using Convolutional neural network, maching learning for conversation and improve the sensivity of the performance.. |