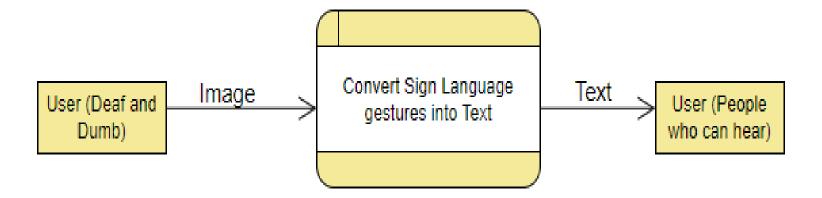
Project Design Phase-II Data Flow Diagram & User Stories

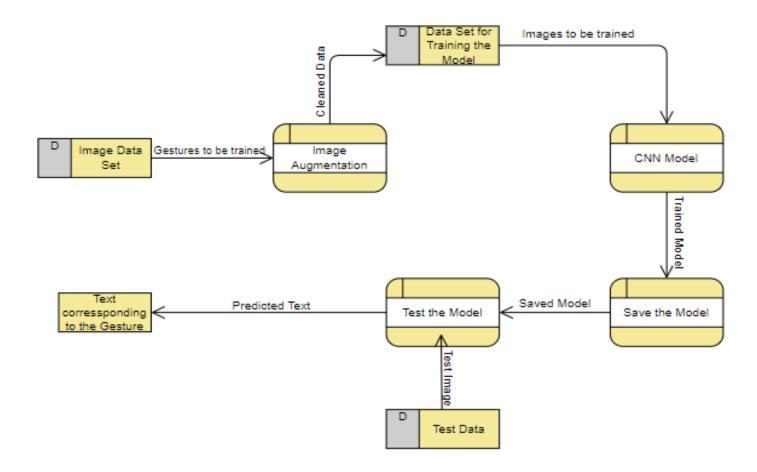
| Date | 20 October 2022 |
|---------------|---|
| Team ID | PNT2022TMID25478 |
| Project Name | Real-Time Communication System Powered by |
| | Al for Specially Abled |
| Maximum Marks | 4 Marks |

Data Flow Diagrams:

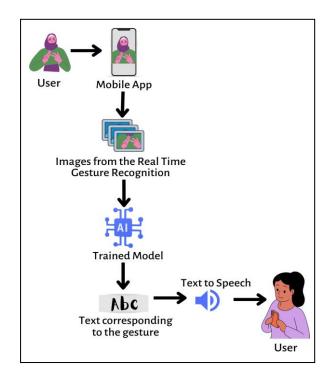
Level - 0 DFD:



Level - 1 DFD:



Simplified Flow Diagram:



- 1. User (specially abled) can open the App and start recording their sign language.
- 2. The App will take images from the real time video footage and passes it to the trained AI model
- 3. The model classifies the gesture and returns the corresponding text.
- 4. The text is then converted into speech for the normal people to hear.

User Stories

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|--|--|----------------------|---|--|----------|----------|
| Customer (Mobile user - People who cannot hear) | Convert sign language into text | USN-1 | As a user, I can open camera in the app and record my signs to be converted into text | I can communicate with normal people effectively | High | Sprint-1 |
| | | USN-2 | As a user, I can upload my previous sign gestures to communicate faster | I can have a list of frequently used signs to make for fast reference | Medium | Sprint-2 |
| | Dashboard | USN-3 | Buttons to record the signs, to convert in real-time and other buttons should be available in the right places | All features must be easily accessible | High | Sprint-1 |
| | | USN-4 | Emergency calls must be available so that I can press a button in times of emergency to get the attention of others | I can feel safe because of the Emergency Button which can get me help. | High | Sprint-4 |
| Customer (Mobile user - People who can hear and talk) | Convert sign language into text | USN-5 | As a user, I can open back camera in the app and record the specially abled people's signs to be converted into text | I can understand the mode of communication of specially-abled people effectively | High | Sprint-2 |
| | Show the message to convey in the form of text | USN-6 | As a user, I can open a Text-pad that is available in the app, so that the deaf people can see the message I need to convey | I can convey my message to them effectively | Medium | Sprint-3 |
| Administrator | Integrate application with trained model | USN-7 | As an admin, I should be able to integrate the AI model into the application and maintain the application | I can give best experience the the mobile app users | High | Sprint-1 |