Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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| Team ID | PNT2022TMID50449 |
| Project Name | Project - Real-Time Communication System  Powered by AI for Specially Abled |
| Maximum Marks | 4 Marks |

# Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Form  Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | User Login | Login through Form  Login through Gmail |
| FR-4 | Image Upload | Image Upload via Drag & Drop  Image Upload by choosing from local file subsystem |
| FR-5 | Text Entry | Text Entry by Copy-Paste  Text Entry by Typing |
| FR-6 | Conversion | Sign-Language to Speech Conversion  Text to Sign-Language Conversion |
| FR-7 | Activity Log | View list of active users  View log of translations performed |

# Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The application can be used by clients without prior knowledge of machine-learning algorithms. Basic knowledge of text-entry and file directory  subsystem is sufficient |
| NFR-2 | **Security** | Access is provided only to registered users, either through a username-password pair or via their  Gmail account |
| NFR-3 | **Reliability** | The application has an extremely low failure rate / downtime and has a clear, predictable flow of  operations |
| NFR-4 | **Performance** | The application provides accurate translations from  sign-language to speech as well as from text-to-sign language |

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| NFR-5 | **Availability** | Clients can use the application to perform  conversions provided they have a stable Internet connection |
| NFR-6 | **Scalability** | The application seamlessly and efficiently handles a growing number of clients / users without any  significant reduction in performance |