

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID33857 |
| Project Name | Real-Time Communication System Powered by AI for Specially Abled |
| Maximum Marks | 4 Marks |

Functional Requirements:

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|-------------------------------------------------------------------------------------------------|
| FR-1 | User Registration | Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email |
| FR-3 | User Communication | Communication can be done through pc or mobile camera. |
| FR-4 | User requirement | Option should be shown for hand sign to text and voice conversion and vice versa. |
| FR-5 | Communication requirement | Tutors can be made available to have one to one teaching for users. |
| FR-6 | Regulatory requirements | App shutdown in case of cyber attack |
| FR-7 | Reporting | If any issues are found in the application, automatically it will be notified to the developer. |
| FR-8 | Compliance to rules / laws | Terms and conditions, private policy, End user subscription agreement. |

Non-functional Requirements:

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NFR-1 | Usability | The camera captures all expressions including facial expressions and hand gestures which can be easily used by all age groups. It can be used by deaf-mute people and their caretakers. |
| NFR-2 | Security | The system is more secure and information of the customers is also maintained confidentially. |
| NFR-3 | Reliability | The system is very liable, it can last for long amounts of time if well maintained. |
| NFR-4 | Performance | The performance of the model is efficient. The cost-effective nature of the system makes it extremely liable. The latency is very less for the conversion process. |
| NFR-5 | Availability | The solution is suitable for different languages and can be used in many countries. It can be trained for all the available sign languages. This model can be used at any time anywhere. |

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| NFR-6 | Scalability | The system gives output rapidly. It also predicts quickly when it gets so many inputs at a time. It predicts different types of sign language at a time. Upto 25000 users can use this model at a time. |
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