

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

Date	02 February 2026
Team ID	LTVIP2026TMIDS49957
Project Name	Translingua: Ai-Powered Multi-Language Translator
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Input Module	Enter text for translation Upload document for translation
FR-2	Input Validation	Validate empty input Validate supported languages
FR-3	AI Integration	Connect to Translation API Send structured input to AI model
FR-4	Translation Processing	Translate text accurately Support multi-language translation
FR-5	Output Display	Display translated text in UI Allow user to copy translated output
FR-6	Additional Feature	Convert translated text to speech Play translated audio output

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The application must have a simple and intuitive Streamlit interface that is easy to use.
NFR-2	<b>Security</b>	API keys must be securely stored and not exposed in the frontend.
NFR-3	<b>Reliability</b>	The system should generate consistent and structured outputs for valid inputs.
NFR-4	<b>Performance</b>	Translation should complete within 1–3 seconds.
NFR-5	<b>Availability</b>	The system should be available 24/7 when deployed online.
NFR-6	<b>Scalability</b>	The system should support multiple users simultaneously.