

Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2026TMIDS91514
Project Name	TransLingua – AI-Powered Multi-Language Translator
Maximum Marks	2 Marks

Problem – Solution Fit

Customer Problem

Students, professionals, and travelers face difficulty understanding and communicating in different languages. Existing translation tools may be inaccurate, slow, or difficult to use, and some require installation or complex setup.

This creates confusion, delays communication, and reduces productivity.

Proposed Solution

TransLingua is a web-based AI-powered language translation application developed using Streamlit and Google Gemini Generative AI. It allows users to enter text, select source and target languages, and receive instant, accurate translations.

The solution directly addresses the customer's need for:

- Fast translation
 - Accurate AI-generated output
 - Simple and accessible web interface
 - Secure and reliable system
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Problem–Solution Fit Justification

The proposed solution effectively solves the identified customer problem by:

- Providing real-time translation using advanced AI models
- Offering a lightweight, web-based interface with no complex installation
- Ensuring secure API integration and reliable performance

Thus, the TransLingua application demonstrates a clear alignment between the customer's problem and the AI-based solution, achieving strong problem–solution fit