

## Project Design Phase

### Problem – Solution Fit

Date	09 February 2026
Team ID	LTVIP2026TMIDS66199
Project Name	TransLingua: AI-Powered Multi-Language Translator
Maximum Marks	2 Marks

### Problem – Solution Fit:

The **Problem–Solution Fit** for *Explore with AI* focuses on addressing the common challenges faced by travelers in planning personalized trips efficiently and without stress.

### Purpose:

- ❑ To solve the problem of language barriers by providing an AI-powered automated translation solution.
- ❑ To improve user adoption by aligning with modern behavior, where users prefer quick, web-based, and intelligent digital tools for real-time communication.
- ❑ To clearly communicate the value of AI-driven, context-aware translation as a faster and more reliable alternative to manual or traditional translation methods.
- ❑ To reduce common user frustrations such as inaccurate translations, high translation costs, time-consuming manual efforts, and lack of multilingual accessibility.
- ❑ To understand user communication needs and enhance the experience by delivering accurate, real-time, and multi-language translation through an easy-to-use web interface.

**Template:**

## TransLingua: AI-Powered Multi-Language Translator

### Understand User Needs for Real-Time, Accurate Text Translation

<b>1. CUSTOMER SEGMENT(S)</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">CS</span> <ul style="list-style-type: none"> <li>International travelers</li> <li>Business professionals working globally</li> <li>Students &amp; researchers collaborating internationally</li> <li>Content creators handling multilingual audiences</li> </ul>	<b>2. CUSTOMER CONSTRAINTS</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">CC</span> <ul style="list-style-type: none"> <li>Rely on slow or inaccurate translation methods</li> <li>Difficulty finding reliable real-time translators</li> <li>High costs of professional translation</li> <li>Juggle multiple translation apps</li> </ul>	<b>3. AVAILABLE SOLUTIONS</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">AS</span> <ul style="list-style-type: none"> <li>Google Translate</li> <li>Bing Translator</li> <li>Translation devices</li> <li>Asking bilingual friends for help</li> </ul>
<b>4. JOBS-TO-BE-DONE / PROBLEMS</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">J&amp;P</span> <ul style="list-style-type: none"> <li>Translate text in real time</li> <li>Understand conversations in foreign languages</li> <li>Communicate easily in multiple languages</li> <li>Find accurate translations quickly</li> </ul>	<b>5. PROBLEM ROOT CAUSE</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">RC</span> <ul style="list-style-type: none"> <li>Inconsistent translation quality</li> <li>Limited support for context-aware translation</li> <li>Switching between tools is inefficient</li> <li>Lack of all-in-one translation platform</li> </ul>	<b>6. BEHAVIOUR</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">BE</span> <ul style="list-style-type: none"> <li>Switch between translation apps</li> <li>Ask bilingual friends for help</li> <li>Translate phrase-by-phrase to make sense</li> <li>Double-check translations manually</li> </ul>
<b>7. TRIGGERS</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">TR</span> <ul style="list-style-type: none"> <li>Upcoming international trip</li> <li>Cross-border business opportunity</li> <li>Multilingual academic research</li> </ul>	<b>8. EMOTIONS: BEFORE / AFTER</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">EM</span> <ul style="list-style-type: none"> <li>Overwhelmed</li> <li>Frustrated</li> <li>Insecure</li> <li>Inefficient</li> </ul>	<b>9. YOUR SOLUTION</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">CH</span> <ul style="list-style-type: none"> <li>Web application (Streamlit)</li> <li>Select text and languages</li> <li>Click "Translate Now"</li> <li>Instantly receive translated text</li> </ul>
<b>7. TRIGGERS</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">TR</span> <ul style="list-style-type: none"> <li>Upcoming international trip</li> <li>Cross-border business opportunity</li> <li>Multilingual academic research</li> </ul>	<b>8. YOUR SOLUTION</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">SU</span> <ul style="list-style-type: none"> <li>AI-powered web application for real-time text translation</li> </ul>	<b>10. CHANNELS &amp; BEHAVIOUR</b> <span style="background-color: #FFDAB9; padding: 2px 5px;">CH</span> <ul style="list-style-type: none"> <li>Web application (Streamlit)</li> <li>Select text and languages</li> <li>Click "Translate Now"</li> <li>Instantly receive translated text</li> </ul>

## References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>