

## Project Design Phase Solution Architecture

Date	13 February 2026
Team ID	LTVIP2026TMIDS66199
Project Name	TransLingua: AI-Powered Multi-Language Translator
Maximum Marks	4 Marks

### Solution Architecture:

The solution architecture of *Explore with AI* bridges the gap between the problem of manual travel planning and the implementation of an AI-powered automated system.

The architecture is designed to be lightweight, modular, and scalable. It integrates a web-based user interface with backend application logic and a cloud-based generative AI service.

### Solution Architecture Diagram:

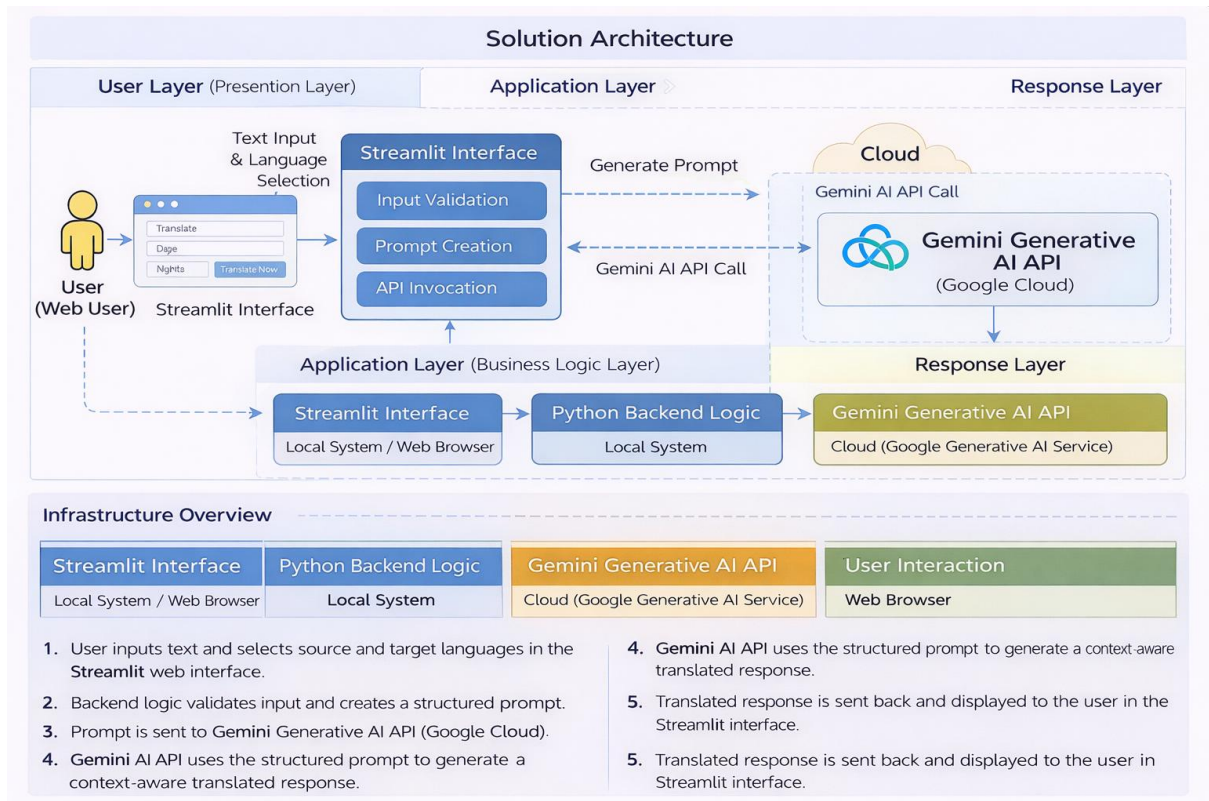


Figure 1: Architecture and data flow of travel itinerary application

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>