Project Design Phase
Solution Architecture

Date	17 June 2025
Team ID	LTVIP2025TMID59427
Project Name	Project - Smart SDLC – AI Requirement Analyzer
Maximum Marks	4 Marks

Solution Architecture:

The frontend is built with **Streamlit**, providing an interface to upload .txt files and trigger analysis.
Once the user clicks "Analyze," the app constructs a prompt using the uploaded content.
It then sends a request to the **OpenRouter API** with the selected AI model (e.g., Mistral).
The AI model processes the text and returns structured software requirements.
The results are displayed in the Streamlit UI in a clean, readable format.
All API keys and configurations are securely stored using secrets.toml in Streamlit Cloud.

Example - Solution Architecture Diagram: