

Project Design Phase
Proposed Solution Template

Date	26 june 2025
Team ID	LTVIP2025TMID59401
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Many businesses lack an intelligent, low-cost way to automate responses, generate content, or integrate AI without deep technical expertise.
2.	Idea / Solution description	This project provides an AI-powered chatbot using IBM Watson/Watsonx integrated with FastAPI and Streamlit. It accepts user input and generates relevant AI responses with token management and efficient API usage.
3.	Novelty / Uniqueness	Combines IBM Watson's enterprise-grade AI with lightweight, open-source tools like FastAPI and Streamlit. Implements token caching to reduce API load.
4.	Social Impact / Customer Satisfaction	Enables small businesses, students, and startups to access advanced AI without high costs. Offers real-time feedback and personalized assistance.
5.	Business Model (Revenue Model)	Can be offered as a SaaS chatbot solution for companies. Subscription-based pricing or API-call-based billing. Add-ons for analytics and custom training.
6.	Scalability of the Solution	Scalable with minimal infrastructure. Can handle multiple users via API scaling. Easily extendable to support multiple languages and advanced NLP features.