**Project Design Phase**

**Proposed Solution Template**

| Date | June 2025 |
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| Team ID | LTVIP2025TMID33933 |
| Project Name | Edu Tutor AI |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

| S.No. | Parameter | Description |
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| 1 | Problem Statement (Problem to be solved) | Traditional education systems struggle to provide personalized learning experiences at scale. Students often receive generic content that doesn't align with their individual learning pace, style, or goals. There's also a lack of integration between AI tools and classroom management platforms. |
| 2 | Idea / Solution Description | EduTutor AI is a personalized education platform powered by IBM Watsonx’s Granite-13B model and integrated with Google Classroom. It enables customized tutoring based on a student’s learning profile, offering targeted study material, topic-based assistance, and intelligent content generation. Built using FastAPI, Streamlit, Pinecone, and LangChain, the system supports real-time AI interaction, topic suggestion, and performance tracking. |
| 3 | Novelty / Uniqueness | - Uses IBM Granite LLMs for deep contextual understanding. - Integrates LangChain for contextual memory and document handling. - Personalized content generation tailored to user input and curriculum data. - Combines AI foundation models with real-world education APIs (Google Classroom). |
| 4 | Social Impact / Customer Satisfaction | EduTutor AI democratizes access to high-quality education by offering scalable, intelligent tutoring to students regardless of their location or background. It promotes inclusive education and reduces the dependency on expensive private coaching. Teachers also benefit from automation and better insights into student progress. |
| 5 | Business Model (Revenue Model) | - Freemium model: Basic access for free; premium features such as advanced analytics, priority AI support, and curriculum planning tools for a fee. - Subscription plans for schools/institutions. - Custom enterprise solutions for educational platforms and edtech companies. |
| 6 | Scalability of the Solution | EduTutor AI is built using scalable cloud-native technologies (IBM Cloud, FastAPI, Pinecone). The modular architecture allows easy integration with more LLMs, learning platforms, and languages. It can support millions of users with minimal latency and be deployed globally with regional language customization. |