**Project Design Phase**

**Proposed Solution Template**

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| Date | 15 February 2025 |
| Team ID | LTVIP2026TMIDS78841 |
| Project Name | Flavour Fusion: AI-Driven Recipe Blogging |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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

| S.No. | Parameter | Description |
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| 1. | Problem Statement (Problem to be solved) | Food bloggers, home cooks, and content creators often struggle to consistently produce high-quality, engaging, and well-structured recipe blogs. Writing detailed recipe content takes significant time and effort, especially when maintaining creativity, clarity, and proper formatting. Additionally, users may need blogs of specific word lengths tailored for websites, SEO, or social media platforms.<br><br>There is a need for an intelligent system that can quickly generate customized recipe blogs based on user input while maintaining quality, creativity, and structure. |
| 2. | Idea / Solution description | Flavour Fusion is an AI-driven web application that generates customized recipe blogs using Google's Gemini 1.5 Flash large language model.<br><br>The application allows users to:<br>• Enter a recipe topic.<br>• Specify the desired word count.<br>• Generate a structured and engaging blog instantly.<br><br>The system uses a Streamlit-based user interface where the input is collected and sent to the Gemini API. The AI model processes the input and generates a complete blog post including |

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| | | introduction, ingredients, preparation steps, tips, and conclusion.<br><br>Additionally, the application displays a fun programmer joke while the blog is being generated to enhance user experience. |
| 3. | Novelty / Uniqueness | The uniqueness of Flavour Fusion lies in:<br><br>• AI-powered customized blog generation.<br>• User-controlled word count specification.<br>• Integration with Gemini 1.5 Flash for fast and high-quality content.<br>• Real-time content generation.<br>• A programmer joke feature that makes the experience entertaining.<br>• Easy-to-use Streamlit web interface.<br><br>Unlike traditional recipe generators, this system creates detailed blog-style content rather than just listing ingredients and steps. |
| 4. | Social Impact / Customer Satisfaction | Flavour Fusion benefits:<br><br>• Food bloggers who need quick and creative content.<br>• Home cooks looking for structured recipes.<br>• Professional chefs managing content platforms.<br>• Digital marketers requiring SEO-friendly food blogs.<br><br>The system reduces content creation time, increases productivity, and improves creativity. By automating blog writing, users can focus more on cooking and less on writing.<br><br>The entertaining joke feature also enhances user engagement and satisfaction. |
| 5. | Business Model (Revenue Model) | The potential revenue model for Flavour Fusion includes:<br><br>• Freemium Model: |

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| | | ○ Free basic blog generation with limited word count.<br>○ Premium subscription for advanced features (longer blogs, multiple generations, export options).<br>• API Usage Model:<br>○ Providing AI blog generation services to food blogging platforms.<br>• Advertisements:<br>○ Displaying ads related to cooking products and ingredients.<br>• Subscription Plans:<br>○ Monthly or yearly premium plans for unlimited usage. |
| 6. | Scalability of the Solution | Flavour Fusion is highly scalable because:<br>• It is built using Streamlit, which supports web deployment.<br>• The backend integrates with Gemini API, which can handle multiple requests.<br>• The application can be deployed on cloud platforms.<br>• The system can be expanded to:<br>○ Multi-language blog generation.<br>○ Image generation for recipes.<br>○ Nutrition analysis integration.<br>○ User accounts and saved blog history.<br>The architecture supports future enhancements and can handle increasing user demand efficiently. |