

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	15 February 2026
Team ID	LTVIP2026TMIDS34355
Project Name	Flavour Fusion: AI-Driven Recipe Blogging
Maximum Marks	4 Marks

Functional Requirements

These are the core features and actions the **Flavour Fusion** system must perform to satisfy the user's needs.

FR No	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Access Management	<ul style="list-style-type: none">• Registration through Form• Secure Login via Gmail/Google OAuth• Password Reset functionality
FR-2	Project Configuration	<ul style="list-style-type: none">• Input field for Recipe Topic• Dropdown for Word Count Selection (800, 1200, 1500)

FR-3	AI Content Generation	<ul style="list-style-type: none"> • Integration with Google Gemini API for recipe creation • Prompt engineering for specific dietary styles (Vegan, Gluten-Free)
FR-4	UX Engagement	<ul style="list-style-type: none"> • Automated Programmer Joke delivery during loading state • Real-time display of generation progress
FR-5	Output Management	<ul style="list-style-type: none"> • View generated blog in formatted Markdown • Copy-to-clipboard functionality • Option to save as PDF or Doc

Non-functional Requirements

These define the quality attributes and performance constraints of the system.

NFR. No	Non-Functional Requirement	Description
NFR-1	Usability	The interface should be intuitive and responsive across mobile and desktop devices, requiring no more than three clicks to generate a blog.
NFR-2	Security	Secure handling of API keys using environment variables and encryption for any stored user data.
NFR-3	Reliability	The system must handle API timeouts gracefully by offering a retry option or showing an error message without crashing.
NFR-4	Performance	The Joke Module must load within 1 second of clicking "Generate," even if the AI content takes longer to process.
NFR-5	Availability	The web application should be hosted on a cloud platform ensuring 99.5% uptime for global users.
NFR-6	Scalability	The backend architecture must support multiple simultaneous AI generation requests without data crossover between users.

