

## 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	<b>User Access Management</b>	<ul style="list-style-type: none"><li>• Registration through Form</li><li>• Secure Login via Gmail/Google OAuth</li><li>• Password Reset functionality</li></ul>
FR-2	<b>Project Configuration</b>	<ul style="list-style-type: none"><li>• Input field for Recipe Topic</li><li>• Dropdown for Word Count Selection (800, 1200, 1500)</li></ul>

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

## Non-functional Requirements

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

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

