

## Project Design Phase-II

### Solution Requirements (Functional & Non-functional)

Date	17 June 2025
Team ID	LTVIP2025TMID29152
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	4 Marks

#### **Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Register via email form
FR-2	Upload and Classify PDF	Upload PDF file classify content using AI.
FR-3	Chat Assistant	Query submission and response via chat.
FR-4	AI Code generator	Input a prompt for code then generate code.
FR-5	Code summarizer	Paste code receive a summarized explanation.
FR-6	Bug fixer	Paste buggy code receive auto fixes code.
FR-7	Test case generator	Upload code generate integrated test cases.
FR-8	Feedback	Submit feedback through form.

#### **Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The system should provide an intuitive and user friendly interface on mobile.
NFR-2	<b>Security</b>	Ensure secure login, secure API access and user data protection
NFR-3	<b>Reliability</b>	System must operate consistently without unexpected errors or crashes.
NFR-4	<b>Performance</b>	Responses from AI modules must be provided in under seconds for smooth UX.
NFR-5	<b>Availability</b>	SmartSDLC should maintain 99.9% uptime with minimal maintenance disruptions.
NFR-6	<b>Scalability</b>	Capable of scaling to handle thousands of concurrent users and large file sizes.