

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	16 June 2025
Team ID	LTVIP2025TMID32040
Project Name	Smart SDLC – 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	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	AI-Powered SDLC Interaction	Phase selection dropdown Prompt input textbox
FR-4	Image/Diagram Generation	Generate phase-based visual (DFD, Architecture, UML)
FR-5	Knowledge Base Storage	Store previous prompts/responses Allow exporting conversations as text/PDF
FR-6	Multi-Channel Input Support	Enable voice-to-text prompts Support for mobile-friendly inputs

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system should offer a user-friendly interface with intuitive navigation for all SDLC phases.
NFR-2	Security	All user data and interactions must be securely handled with encryption and authentication.
NFR-3	Reliability	The application should produce consistent and accurate outputs for similar prompts.
NFR-4	Performance	The AI should respond within 2–5 seconds for most inputs under typical load conditions.
NFR-5	Availability	The system should ensure 99.5% uptime with minimal downtime or service interruption.
NFR-6	Scalability	The solution should scale to support increased user traffic and larger prompt workloads.