

## Project Design Phase-II

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

<b>Date</b>	12 JUNE 2025
<b>Team ID</b>	LTVIP2025TMID31167
<b>Project Name</b>	SmartSDLC – AI-Enhanced Software Development Lifecycle
<b>Maximum Marks</b>	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	<ul style="list-style-type: none"><li>- Registration through Form</li><li>- Registration through Gmail</li><li>- Registration through LinkedIn</li></ul>
FR-2	User Confirmation	<ul style="list-style-type: none"><li>- Confirmation via Email</li><li>- Confirmation via OTP</li></ul>
FR-3	Requirement Classification	<ul style="list-style-type: none"><li>- Upload PDF document</li><li>- Extract and classify requirements by SDLC phase</li></ul>
FR-4	Code Intelligence Services	<ul style="list-style-type: none"><li>- Generate code from user story</li><li>- Fix buggy code</li><li>- Generate test cases</li><li>- Summarize source code</li></ul>

---

## Non-Functional Requirements

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

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	The platform provides an intuitive Gradio-based interface accessible to both technical and non-technical users.
NFR-2	Security	Implements secure file handling, user input validation, and restricted API access.
NFR-3	Reliability	Ensures consistent output across repeated usage with reliable model predictions.
NFR-4	Performance	Optimized for fast response time using efficient inference and model loading.
NFR-5	Availability	Deployed on cloud (Google Colab) ensuring availability during development cycles.
NFR-6	Scalability	Designed to integrate with scalable LLM APIs and support future modules like CI/CD integration.