

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

Date	31 January 2025
Team ID	LTVIP2025TMID29410
Project Name	Smart SDLC using Generative AI on IBM Cloud
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	AI-Powered Code Generation	Generate code from user stories using generative AI Preview and approve generated code
FR-2	Version Control Integration	Sync with GitHub/IBM Cloud Code Engine Commit and view version history
FR-3	SDLC Stage Tracking	Track progress through Requirement, Design, Development, Testing, and Deployment stages
FR-4	Workflow Automation	Trigger CI/CD pipelines Automate testing and deployment using IBM Cloud DevOps tools
FR-5	Project Dashboard	Real-time updates on project KPIs, progress, and status across SDLC phases
FR-6	Role-Based Access	Admin, Developer, Tester roles with specific permissions

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Intuitive UI/UX for non-technical users using IBM Cloud App Services
NFR-2	Security	Data encryption, access control, and OAuth integration with IBM Identity Services
NFR-3	Reliability	Ensure 99.9% uptime and automated rollback using IBM Cloud Monitoring
NFR-4	Performance	System response within 2 seconds for key actions like code generation
NFR-5	Availability	24/7 availability with load balancing via IBM Cloud Kubernetes Service
NFR-6	Scalability	Horizontal scaling using IBM Cloud Foundry or IBM Cloud Code Engine