**Project Design Phase-II**

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

|  |  |
| --- | --- |
| Date | 25 June 2025 |
| Team ID | LTVIP2025TMID30212 |
| 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 | Registration through Form Registration through Gmail Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Requirement Processing | Upload PDF Classify Requirements using AI |
| FR-4 | Development Automation | Generate Code Generate Tests Fix Bugs Summarize Code |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Clean UI with intuitive layout and clear outputs |
| NFR-2 | **Security** | SHA-256 password hashing, token-based auth |
| NFR-3 | **Reliability** | Consistent performance and error handling |
| NFR-4 | **Performance** | AI responses within few seconds |
| NFR-5 | **Availability** | Accessible via browser, 24/7 testing on localhost |
| NFR-6 | **Scalability** | Modular services can scale with user demand |