# Project Design Phase-II

## Solution Requirements (Functional & Non-functional)

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| Date | 20 June 2025 |
| Team ID | LTVIP2025TMID31897 |
| Project Name | EduTutor AI: Personalized Learning with Generative AI and LMS |
| Maximum Marks | 4 Marks |

## Functional Requirements:

Following are the functional requirements of the proposed solution.

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| --- | --- | --- |
| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
| FR-1 | User Registration | Register via Email Register via Gmail or LinkedIn |
| FR-2 | User Login | Login with Email/Password Social Login (Gmail/LinkedIn) Password Recovery |
| FR-3 | AI Tutoring Chatbot | Ask questions in natural language Receive AI-generated responses Contextual answers based on user's progress |
| FR-4 | PDF Summarizer | Upload PDF documents Summarize chapters or entire files Highlight key points and concepts |
| FR-5 | Quiz Generator | Generate quizzes from PDF content or AI topics Multiple question types (MCQ, short answer) Difficulty level options |
| FR-6 | Progress Tracker | Track completed lessons and quizzes Display learning milestones Provide personalized progress reports |

## Non-functional Requirements:

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

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| NFR No. | Non-Functional Requirement | Description |
| NFR-1 | Usability | Simple UI/UX for students of all levels; mobile-friendly interface |
| NFR-2 | Security | Secure login, encrypted file uploads, and AI data privacy compliance |
| NFR-3 | Reliability | The system should be robust with accurate AI outputs and minimal downtime |
| NFR-4 | Performance | Fast AI responses (< 2 seconds), real-time quiz generation, quick PDF processing |
| NFR-5 | Availability | System should be available 24/7 with high uptime and proper maintenance alerts |
| NFR-6 | Scalability | Should support a growing number of users, PDFs, and AI queries |
| NFR-7 | Accessibility | Accessible design for users with disabilities; keyboard and screen reader support |
| NFR-8 | Maintainability | Code should be modular and well-documented for easy updates and bug fixes |