**Project Design Phase-II**

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

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| Date | 21 June 2025 |
| Team ID | LTVIP2025TMID54785 |
| Project Name | LearnHub: Your Center For Skill Enhancement |
| 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 | Manual registration via a form for students and teachers |
| FR-2 | User Confirmation | Upon form submission, users are immediately registered and can log in without approval delay |
| FR-3 | User Authentication | Secure login using credentials (email and password) with JWT-based token authentication |
| FR-4 | Role-Based Dashboard | Users are redirected to role-specific dashboards (Student or Teacher) after login |
| FR-5 | Course Creation (Teacher) | Teachers can create new courses with title, description, and multimedia content (videos/images/text) |
| FR-6 | Course Management | Teachers can update or delete their created courses |
| FR-7 | Course Viewing (Student) | Students can browse all available courses with previews |
| FR-8 | Course Enrollment (Student) | Students can enroll in available courses from their dashboard |
| FR-9 | Content Access | Enrolled students can view full course content including videos, documents, and images |
| FR-10 | Progress Tracking | Students can track their completion status for enrolled courses |
| FR-11 | Logout | Users can securely log out, ending the JWT session |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | LearnHub provides a clean, intuitive, and responsive interface using React, allowing both students and teachers to easily navigate and use the system with minimal training. |
| NFR-2 | **Security** | User data is protected with JWT-based authentication and secure password storage using hashing. Role-based access ensures only authorized users can access respective dashboards and features. |
| NFR-3 | **Reliability** | The system is designed to function consistently, ensuring users can register, log in, and access content without interruption. Error handling is implemented to catch and log failures. |
| NFR-4 | **Performance** | Built with Vite and React for fast loading times and smooth transitions. The application is optimized to handle multiple simultaneous users with minimal lag. |
| NFR-5 | **Availability** | The platform ensures high uptime and can be hosted on cloud services to maintain continuous access for users. Downtime is minimized through proper deployment and monitoring. |
| NFR-6 | **Scalability** | The architecture allows for future growth in user base and features. Additional components (like quizzes, certificates, payments) can be added without major redesign. |