**Project Design Phase-II**

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

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID36031 |
| Project Name | **Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques** |
| 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 | Registration through Form  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Medical Data Handling | Manual entry, file upload, hospital database integration |
| FR-4 | Prediction Engine | Model analysis, result generation, confidence score |
| FR-5 | Report Generation | Summary report, downloadable PDF, doctor notes |
| FR-6 | Doctor Access | View patient reports, dashboard login |
| FR-7 | Patient Dashboard | View results, view history, edit info |

**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** | Easy-to-use interface for patients and doctors, intuitive dashboards |
| NFR-2 | **Security** | Patient data encrypted at rest and in transit; role-based access |
| NFR-3 | **Reliability** | System recovers gracefully from failures and ensures consistent output |
| NFR-4 | **Performance** | Prediction results delivered within 2–5 seconds of data submission |
| NFR-5 | **Availability** | System accessible 24/7 with minimal downtime |
| NFR-6 | **Scalability** | Can handle increased users, patients, and hospital integrations without performance drops |