

## Project Design Phase-II

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

|               |   |
|---------------|---|
| Date          | 2 November 2025   |
| Team ID       | NM2025TMID02839   |
| Project Name  | Optimizing User, Group, and Role Management with Access Control and Workflows |
| 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 Creation                 | Create Alice and Bob users for testing access.                   |
| FR-2   | Group Management              | Create groups for managing department access levels.             |
| FR-3   | Role Management               | Create roles and assign them to users for specific permissions.  |
| FR-4   | Application Access            | Assign table-level access to applications based on role.         |
| FR-5   | Access Control List (ACL)     | Configure ACLs for dynamic permission control.                   |
| FR-6   | Workflow Automation           | Design a flow to auto-assign operational tickets to user groups. |
| FR-7   | Testing and Validation        | Verify user access, ACL permissions, and workflow triggers.      |

**Non-functional Requirements:**

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

| <b>FR No.</b> | <b>Non-Functional Requirement</b> | <b>Description</b>   |
|---------------|-----------------------------------|--|
| NFR-1         | Usability                         | Interface should be intuitive for admins and group managers.             |
| NFR-2         | Security                          | Only authorized roles can manage access, groups, and ACLs.               |
| NFR-3         | Reliability                       | System should correctly apply roles and ACLs before any access change.   |
| NFR-4         | Performance                       | Access checks and workflow triggers should execute instantly.            |
| NFR-5         | Availability                      | The access management system should be available at all times.           |
| NFR-6         | Scalability                       | Must handle growing numbers of users, groups, and workflows efficiently. |