

Project Design Phase

Solution Architecture

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| Date | 02 Nov 2025 |
| Team ID | NM2025TMID04852 |
| Project Name | Optimizing User, Group, and Role Management with Access Control and Workflows |
| Maximum Marks | 4 Marks |

Solution Architecture:

Workflow for Role-Based Access Control and Task Management

- 1. User Identification and Role Assignment**
 - Each team member is assigned a role upon onboarding (e.g., Project Manager, Team Member).
 - Roles determine the level of access and control over project resources and tasks.
- 2. Task Creation and Allocation**
 - The Project Manager creates tasks and assigns them to specific team members based on their roles.
 - Tasks are categorized by priority, deadline, and required skills.
- 3. Access Control Implementation**
 - Role-based permissions ensure that users only access relevant tools, documents, and information.
 - Admin rights remain with the Project Manager, while members access only assigned task zones.
- 4. Task Execution and Status Updates**
 - Team members execute tasks and regularly update progress within the system.
 - Each status change (e.g., In Progress, Blocked, Completed) triggers a notification to the relevant stakeholders.
- 5. Review and Feedback**
 - The Project Manager reviews task outputs and provides feedback or approvals.
 - A feedback loop ensures continuous improvement and knowledge transfer.
- 6. Reporting and Documentation**
 - The system generates reports on task completion, timelines, and performance.
 - These insights help in future project planning and accountability.

Example - Solution Architecture Diagram:

Figure 1: Architecture and data flow diagram of optimizing User, Group, and Role Management with Access Control and Workflows

Optimizing User, Group, and Role Management with Access Control Workflow

