

**Project Design Phase**  
**Solution Architecture**

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|---------------|---|
| Date          | 01 Nov 2025   |
| Team ID       | NM2025TMID00613   |
| Project Name  | Optimizing User, Group, and Role Management with Access Control and Workflows |
| Maximum Marks | 4 Marks   |

**Solution Architecture:**

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**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.

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**Example - Solution Architecture Diagram:**

*Figure 1: Architecture and data flow of the Optimizing User, Group, and Role Management with Access Control and Workflows*

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

