

Project Design Phase

Solution Architecture

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| DATE | NOVEMBER 2, 2025 |
| TEAM ID | NM2025TMID00396 |
| PROJECT TITLE | Optimizing User, Group, and Role Management with Access Control and Workflows |

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:

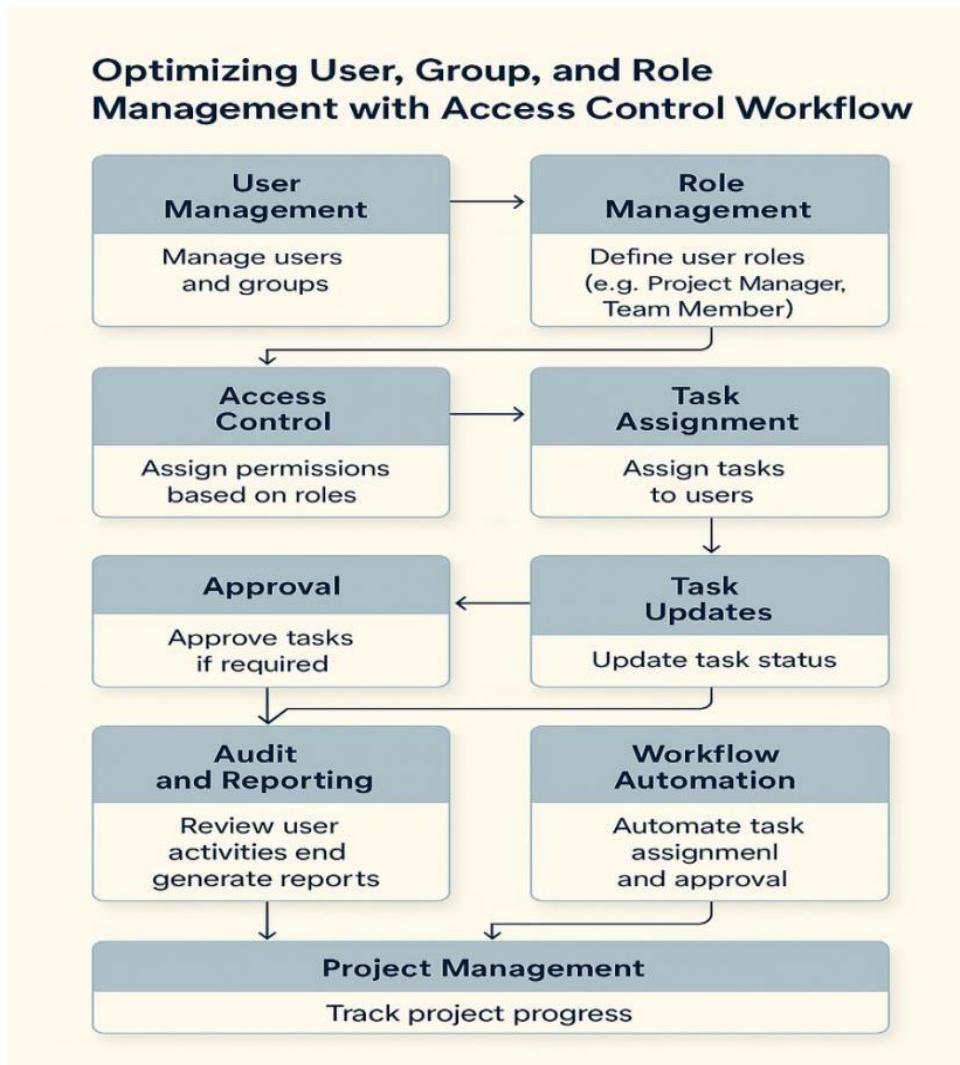


Figure : Architecture and data flow of the Optimizing User, Group, and Role Management with Access Control and Workflows