**Project Design Phase**

**Solution Architecture**

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| Team ID | NM2025TMID07828 |
| 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** o Each team member is assigned a role upon onboarding (e.g., Project Manager, Team Member). o Roles determine the level of access and control over project resources and tasks.
2. **Task Creation and Allocation** o 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** o Role-based permissions ensure that users only access relevant tools, documents, and information. o Admin rights remain with the Project Manager, while members access only assigned task zones.
4. **Task Execution and Status Updates** o Team members execute tasks and regularly update progress within the system. o Each status change (e.g., In Progress, Blocked, Completed) triggers a notification to the relevant stakeholders.
5. **Review and Feedback** o The Project Manager reviews task outputs and provides feedback or approvals.
   * A feedback loop ensures continuous improvement and knowledge transfer.
6. **Reporting and Documentation** o The system generates reports on task completion, timelines, and performance. o These insights help in future project planning and accountability.

**Example - Solution Architecture Diagram:**

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

