

## Project Design Phase-II

### Data Flow Diagram & User Stories

<b>Date</b>	29 October 2025
<b>Team ID</b>	NM2025TMID00560
<b>Project Name</b>	Optimizing User, Group, and Role Management with Access Control and Workflows
<b>Maximum Marks</b>	4 Marks

### Data Flow Diagrams (DFD)

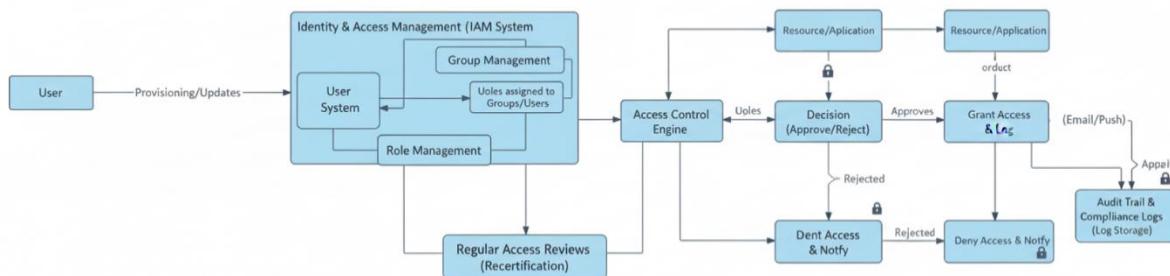
- A **Data Flow Diagram (DFD)** visually represents how data moves through the **User, Group, and Role Management System**.
- It demonstrates how user requests are validated, approved through workflows, and executed securely using **access control policies**.
- This ensures data consistency, prevents unauthorized changes, and maintains complete audit tracking.

### DFD Summary

The DFD emphasizes **automation, validation, and accountability** in user management.

It ensures every access update passes through a **secure workflow** and all activities are fully logged, reducing manual errors and ensuring compliance.

### Optimizing User, Group, and Role Management with Access Control and Workflows



# User Stories

User Stories capture the **functional expectations** of users and administrators.

They describe how each component of the system behaves within the context of workflow automation and access control enforcement.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Administrator	User Management	USN-1	As an admin, I want to create and modify users, assign roles, and manage group memberships through an approval-based workflow.	The system must validate inputs, ensure dependency checks, and trigger workflows for approvals before changes apply.	High	Sprint-1
System	Access Validation	USN-2	As a system, I must validate user, role, and group dependencies before any modification or deletion.	The system should block updates that violate access control rules or dependency checks.	High	Sprint-1
Manager / Approver	Workflow Approval	USN-3	As an approver, I want to review and approve user or role modification requests routed through workflow automation.	The system should send approval notifications, log actions, and update access after validation.	High	Sprint-2
Security Auditor	Audit and Logging	USN-4	As an auditor, I want to review logs of all user and role activities for compliance purposes.	Every user, group, or role change must generate an audit record with time, user ID, and action details.	Medium	Sprint-3
User	Notification	USN-5	As a user, I want to be notified when my access level or group membership changes.	The system must send automated notifications upon access modification.	Medium	Sprint-3