



Project Metadata

Item	Details
Date	02 November 2025
Team ID	NM2025TMID00980
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks



Data Flow Diagrams

A Data Flow Diagram (DFD) visually represents how data moves through the ServiceNow system during user provisioning, role assignment, and access control enforcement. It helps clarify how users are created, assigned to groups and roles, and how ACLs validate access permissions.

In this project, DFDs illustrate the interaction between the admin, Flow Designer, ACL engine, and user/group/role tables. The system automatically provisions users, assigns them to appropriate groups and roles, and enforces access restrictions through ACLs. Business rules validate the logic and prevent misconfigurations.



Example Data Flow

1. **Admin creates a new user**
2. **Flow Designer triggers group and role assignment based on user attributes**
3. **ACL engine checks access permissions for each user based on assigned roles**
4. **Business Rules validate provisioning logic and block unauthorized changes**
5. **Audit logs capture all actions for compliance and traceability**



If you'd like to include a visual DFD diagram, I can help design one or format your sketch into a clean layout.



User Stories

User stories define what different users need from the system in simple, goal-focused language. In this project, they ensure that user provisioning, group assignment, and access control are automated, secure, and scalable.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Administrator	User Provisioning	USN-1	As an admin, I want to create users with correct attributes and access levels.	Users are created with valid roles and group memberships.	High	Sprint-1
System (Auto-check)	Role Assignment	USN-2	As a system, I must assign roles based on department or title.	Roles are assigned automatically via Flow Designer.	High	Sprint-1
Developer	ACL Enforcement	USN-3	As a developer, I want to restrict access to sensitive fields using ACLs.	ACLs block unauthorized access and allow valid users based on role.	High	Sprint-2
Project Manager	Group Management	USN-4	As a manager, I want users to be added to correct groups dynamically.	Group assignment reflects user attributes and updates automatically.	Medium	Sprint-2

Tester	Validation	USN-5	As a tester, I want to impersonate users to verify access control behavior.	Impersonation confirms ACL enforcement and role-based restrictions.	Medium	Sprint-3
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