Project Design Phase

Solution Architecture

Date	2 November 2025
Team ID	NM2025TMID06473
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum marks	4 marks

Solution Architecture:

Goals of the Architecture:

- Streamline and secure user, group, and role management in ServiceNow.

- Maintain data integrity using Access Control Lists (ACLs).

- Automate workflows to assign roles and manage permissions efficiently.

- Enhance accountability and reduce manual configuration efforts.

Key Components:

- Users Table (where users such as Alice and Bob are created)

- Groups Table (organizes users by project roles)

- Roles Table (defines access privileges)

- Access Control List (ACL) for permission-based data security

- Project Table and Task Table (custom tables for project tracking)

- Flow Designer (for workflow automation and approval process)

Development Phases:

- Create users (e.g., Alice as Project Manager, Bob as Team Member).

- Create groups for Project Management and assign members.

- Define roles such as Project Manager, Project Member, and Team Member.

- Assign users to roles and configure ACLs for table-level access control.

- Develop and test the Project and Task tables for data entry and tracking.

- Design workflow automation using Flow Designer for approvals and updates.

Solution Architecture Description:

The solution architecture is designed to optimize user, group, and role management within the ServiceNow platform. It establishes a structured workflow for assigning roles, implementing access control, and automating project task updates. Users such as Alice (Project Manager) and Bob (Team Member) are organized under defined groups and roles. Access Control Lists (ACLs) secure the project and task tables, ensuring only authorized users can view or edit data. A Flow Designer workflow automates the approval and completion process for tasks. When a task is created and marked 'in progress' by Bob, the workflow updates the status to 'completed' after approval by Alice. This ensures accountability, transparency, and efficiency within project operations. Overall, this architecture enhances security, improves communication, and simplifies project management within ServiceNow by integrating user roles, ACLs, and workflow automation.

Example - Solution Architecture Diagram: