

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	5 November 2025
Team ID	NM2025TMID09142
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

Technical Architecture:

The deliverable presents the architectural design and technology stack implemented in the project “Optimizing User, Group, and Role Management with Access Control and Workflows”. It illustrates how various components—such as user management, group assignments, and role-based access control—are integrated within a workflow-driven system to ensure secure operations and maintain data integrity.

Example:

Table-1: Components & Technologies:

S.No	Component	Description	Technology Date & Time
1	User Interface	The admin interacts through a web dashboard to manage users, groups, and roles.	ServiceNow Web UI
2	Application Logic - 1	Implements automated workflows for role and group assignments.	ServiceNow Flow Designer
3	Application Logic - 2	Validates user-role and group relationships before performing updates.	ServiceNow Scripts / GlideRecord

4	Application Logic - 3	Sends notifications for updates or changes in access privileges	ServiceNow Notifications
5	Database	Stores details related to users, groups, and roles.	ServiceNow CMDB
6	Cloud Infrastructure	Hosted and managed securely on the ServiceNow SaaS environment.	ServiceNow SaaS Platform
7	File Storage	Maintains system logs and audit records for tracking.	ServiceNow System Logs
8	External API	Connects with HRMS systems for identity verification and synchronization.	ServiceNow REST API

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology Date & Time
1	Security Implementation	Ensures role-based access control, ACL protection, and secure workflows.	ServiceNow ACLs & Scoped Applications
2	Scalable Architecture	Provides a SaaS-based scalable framework suitable for large enterprises.	ServiceNow Cloud Platform
3	Availability	Maintains high system uptime through redundant ServiceNow instances.	Load-balanced SaaS Nodes

4	Performance	Optimized workflows enhance system performance and reduce delays.	Flow Designer, Background Scripts
5	Integration	Enables seamless connectivity with external systems via REST APIs.	ServiceNow Integration Hub