

## Project Design Phase

### Solution Architecture

Date	24 June 2025
Team ID	LTVIP2025TMID30187
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
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Maximum Marks	4 Marks

#### Solution Architecture:

The *Optimizing User, Group, and Role Management* project addresses the confusion and inefficiency in small project teams due to lack of role clarity, access control, and workflow structure. This architecture defines how ServiceNow is used to build a secure, role-based, and trackable task management system tailored for streamlined collaboration and accountability.

#### Purpose of the Solution Architecture

- Identify the ideal configuration of user, group, and role settings on ServiceNow to enable structured access and task ownership.
- Describe how tables, roles, workflows, and forms work together to support clear task delegation and lifecycle management.
- Define system features, phases, and technical needs to ensure robust implementation.
- Provide documentation to support maintainability, scalability, and stakeholder communication.

#### Solution Structure

The architecture consists of:

- **Core Tables:**

**Project Tasks:** Captures individual project activities, their statuses, and assignments.

**User Roles:** Stores information on users (e.g., Project Manager, Team Member) and their corresponding roles..

#### Relationships:

- Link tasks to users and roles to enforce access control.
- Enable visibility into task status by role (e.g., Manager sees all tasks, Member sees only assigned tasks).

#### Automation Components:

- **Business Rules:** Trigger alerts or changes (e.g., notify manager when task is overdue).

- **Flow Designer:** Automates approval routing and status updates.
- **Script Includes / ACLs:** Enforce field-level access based on role.

#### **User Interface Elements:**

- **Custom Forms:** Tailored forms for task submission, assignment, and tracking.
- **Related Lists:** View all tasks under a specific project or team member.

#### **Configuration Management:**

- **Update Sets:** Manage and migrate configurations.
- **Role-based UI Policies:** Adjust form views dynamically based on user role.

### **Phases of Development**

1. Set up ServiceNow PDI and initial configurations.
2. Define users, roles, and groups.
3. Design task tracking tables and forms.
4. Implement business rules and flows for access control and status automation.
5. Conduct testing with user roles (Alice and Bob).
6. Finalize documentation and prepare for demonstration.

#### **Specifications**

- Built entirely within ServiceNow's low-code/no-code environment.
- Configurations aligned to ServiceNow best practices for scalability and maintainability.
- Ready for extension to include advanced reporting, dashboards, or additional automation as needed.

## Solution Architecture Diagram:

