

ServiceNow System Administrator

Project Documentation

1. Introduction

Project Title: Optimizing User, Group, and Role Management with Access Control and Workflows

Team Members:

Team ID: LTVIP2026TMIDS65034

Team Size: 3

Team Lead: K THANUJA

Team Member: V TABU

Team Member: Y SAI LAKSHMI

2. Project Overview

Purpose:

- Implement structured Role-Based Access Control (RBAC).
- Automate approval workflows using Flow Designer.
- Improve task tracking and accountability.
- Reduce manual approval delays.
- Ensure secure and controlled system access.

Features:

- User, Role, and Group creation.
- Access Control List (ACL) configuration.
- Automated approval workflow.
- Automatic task state updates.
- Email/notification integration.
- Secure access restriction based on roles.

3. Architecture

Frontend:

ServiceNow interface for task creation, approval view, and status tracking.

Backend:

Flow Designer, Approval Engine, ACLs, Business Rules, Notification System.

Database Tables Used:

- task
- sys_user
- sys_user_group
- sys_user_role
- sysapproval_approver

4. Setup Instructions

Prerequisites:

ServiceNow Developer Instance, Admin access, basic workflow knowledge.

Installation / Setup Steps:

- Login to ServiceNow instance.
- Create Users, Roles, and Groups.
- Configure ACLs.
- Design workflow in Flow Designer.
- Configure Approval process.
- Test full workflow execution.

5. Folder Structure (Logical Structure in ServiceNow)

- User Administration (Users, Roles, Groups)
- Access Control (ACL)
- Flow Designer
- Approvals
- Notifications
- Task Management

6. Running the Application

Login → Create Task → Approval Triggered → Status Updated → Notification Sent.

7. API Documentation

Uses internal ServiceNow APIs and tables for workflow and approval execution.

Flow: User → Task → Flow Designer → Approval → Status Update → Notification.

8. Authentication

- Managed by ServiceNow user management.
- Role-based authentication.
- Group-based authorization.
- ACLs restrict unauthorized access.

9. User Interface

Task form, Approval view, and Status tracking interface with role-based visibility.

10. Testing

- Task creation testing.
- Approval workflow testing.
- Rejection scenario testing.
- Access restriction validation.

- Notification verification.

11. Known Issues

Initial configuration complexity and dependency on ServiceNow platform.

12. Future Enhancements

- Dashboard analytics and reporting.
- Advanced validation using scripts.
- Integration with additional ServiceNow modules.
- Enhanced role hierarchy automation.