

PROJECT REPORT

Optimizing User, Group, And Role Management With Access Control And Workflows

1. INTRODUCTION

1.1 Project Overview

This project focuses on optimizing user, group, and role management in ServiceNow by implementing structured access control mechanisms and automated workflows. The system ensures proper role-based access, task tracking, approval handling, and accountability throughout the project lifecycle.

1.2 Purpose

- Implement role-based access control (RBAC).
- Automate approval workflows using Flow Designer.
- Ensure structured task management.
- Reduce confusion in task assignments.
- Improve accountability and transparency.

2. IDEATION PHASE

2.1 Problem Statement

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there was difficulty managing tasks efficiently due to lack of clear role definitions, structured workflows, and proper access control. This resulted in confusion regarding approvals and progress tracking.

2.2 Empathy Map Canvas

- Users require clear task visibility and structured approvals.
- Project Managers need control over assignments and approvals.
- Administrators require secure access control and workflow monitoring.

2.3 Brainstorming

- Create users, roles, and groups.
- Implement Access Control Lists (ACLs).
- Design approval workflow using Flow Designer.
- Automate task state updates.
- Enable notification system.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

- 1 User logs into ServiceNow.
- 2 Task is created in Task table.
- 3 Flow Designer triggers approval process.
- 4 Approver reviews and approves/rejects.
- 5 Task status updated automatically.
- 6 Notification sent to stakeholders.

3.2 Solution Requirement

Functional Requirements:

- User and role creation.
- Group assignment.
- Approval workflow automation.
- Automatic status updates.

Non-Functional Requirements:

- Secure access control.
- Reliable workflow execution.
- User-friendly interface.
- Fast system performance.

3.3 Data Flow Diagram (Explanation)

User → Task Table → Flow Designer → Approval Table → Update Record → Notification → User

3.4 Technology Stack

- ServiceNow Platform
- User & Role Management
- Access Control Lists (ACL)
- Flow Designer
- Approval Engine
- Task Table
- Notification System

4. PROJECT DESIGN

4.1 Problem Solution Fit

The designed system eliminates role confusion and approval delays by implementing structured workflows and strict role-based access control.

4.2 Proposed Solution

The solution manages users, groups, and roles efficiently, triggers approvals using Flow Designer, updates task states automatically, and maintains complete tracking within ServiceNow.

4.3 Solution Architecture

User Interface → Task Table → Flow Designer → Approval System → Update Record → Notification System

5. PROJECT PLANNING & SCHEDULING

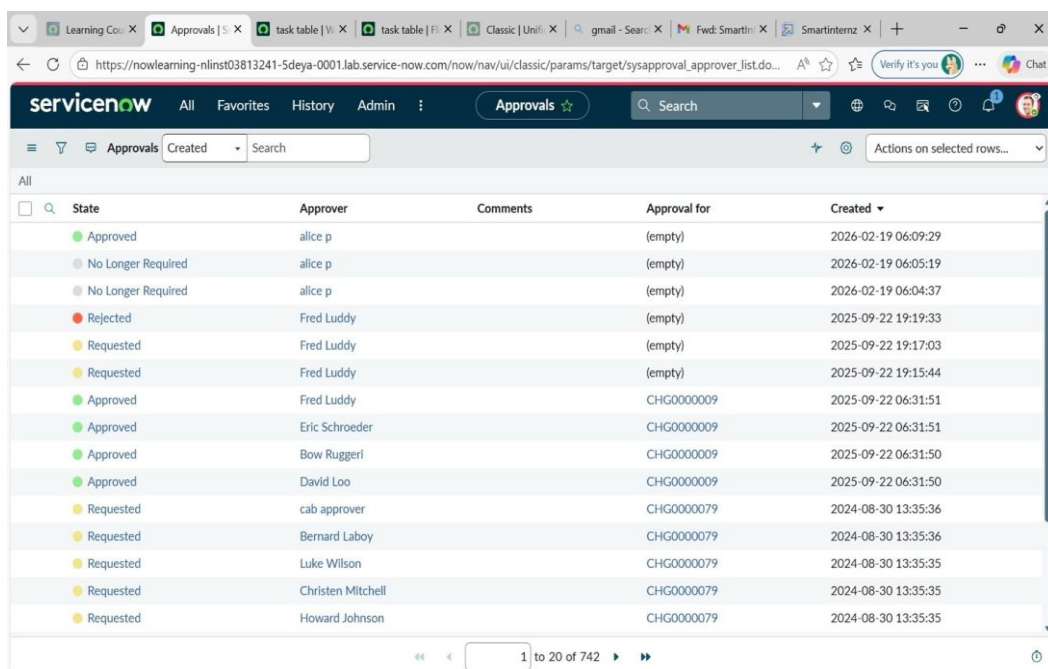
- Phase 1: Requirement Analysis
- Phase 2: User & Role Configuration
- Phase 3: Flow Design
- Phase 4: Approval Setup
- Phase 5: Testing
- Phase 6: Documentation
- Estimated Duration: 2–3 Weeks

6. FUNCTIONAL AND PERFORMANCE TESTING

Tested task creation, approval workflow, automatic state updates, rejection handling, and access restrictions. The system performed successfully under normal conditions.

7. RESULTS

7.1 Output



	State	Approver	Comments	Approval for	Created
	Approved	alice p		(empty)	2026-02-19 06:09:29
	No Longer Required	alice p		(empty)	2026-02-19 06:05:19
	No Longer Required	alice p		(empty)	2026-02-19 06:04:37
	Rejected	Fred Luddy		(empty)	2025-09-22 19:19:33
	Requested	Fred Luddy		(empty)	2025-09-22 19:17:03
	Requested	Fred Luddy		(empty)	2025-09-22 19:15:44
	Approved	Fred Luddy		CHG0000009	2025-09-22 06:31:51
	Approved	Eric Schroeder		CHG0000009	2025-09-22 06:31:51
	Approved	Bow Ruggeri		CHG0000009	2025-09-22 06:31:50
	Approved	David Loo		CHG0000009	2025-09-22 06:31:50
	Requested	cab approver		CHG0000079	2024-08-30 13:35:36
	Requested	Bernard Laboy		CHG0000079	2024-08-30 13:35:36
	Requested	Luke Wilson		CHG0000079	2024-08-30 13:35:35
	Requested	Christen Mitchell		CHG0000079	2024-08-30 13:35:35
	Requested	Howard Johnson		CHG0000079	2024-08-30 13:35:35

workflow:

The screenshot displays the 'EXECUTION DETAILS' for a workflow named 'task table'. The workflow status is 'Completed', and it was run as 'System Administrator'. The execution started on 2026-02-19 at 06:23:57 and took 3ms to complete. The trigger was 'task table 2 Created'. The actions performed were 'Update Record' (1ms) and 'Ask For Approval' (2ms), both of which were completed successfully. The error handler section is currently empty.

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Improved accountability.
- Structured approval process.
- Secure role-based access.
- Automated task tracking
- Clear workflow visibility.

Disadvantages:

- Dependent on ServiceNow platform.
- Initial configuration complexity.
- Requires user training.

9. CONCLUSION

The project successfully demonstrates optimized user, group, and role management with access control and workflow automation in ServiceNow. The implementation improves efficiency, transparency, and structured task handling within the organization.

10. FUTURE SCOPE

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

11. APPENDIX

GitHub & Project Demo Link:

<https://github.com/Thanujakonegari110/servicenow-user-role-management>