

Date	18 June 2025
Team ID	LTVIP2025TMID30187
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Mentor Name	Dr Shaik Salma Begum
Maximum Marks	4 Marks

# Optimizing User, Group, and Role Management with Access Control and Workflows

## Milestone 1: Understanding the Problem

### Problem Context:

In a small project team setup, such as one involving a Project Manager (Alice) and a Team Member (Bob), inefficient handling of user roles, group definitions, and permissions often leads to confusion in task assignment and accountability. The current system does not support structured workflows or role-based access, resulting in overlapping responsibilities and security gaps.

---

## Milestone 2: Goal Identification

### Objectives:

- Define clear user roles (e.g., Manager vs. Contributor)
- Restrict actions using role-based access control (RBAC)
- Automate workflow stages like task creation, assignment, completion, and closure
- Improve accountability via audit logs and notifications

---

## Milestone 3: Instance Setup on ServiceNow

- Created and activated a ServiceNow Developer Instance from [developer.servicenow.com](https://developer.servicenow.com)
- Logged in using the instance credentials
- Verified the environment for custom development

---

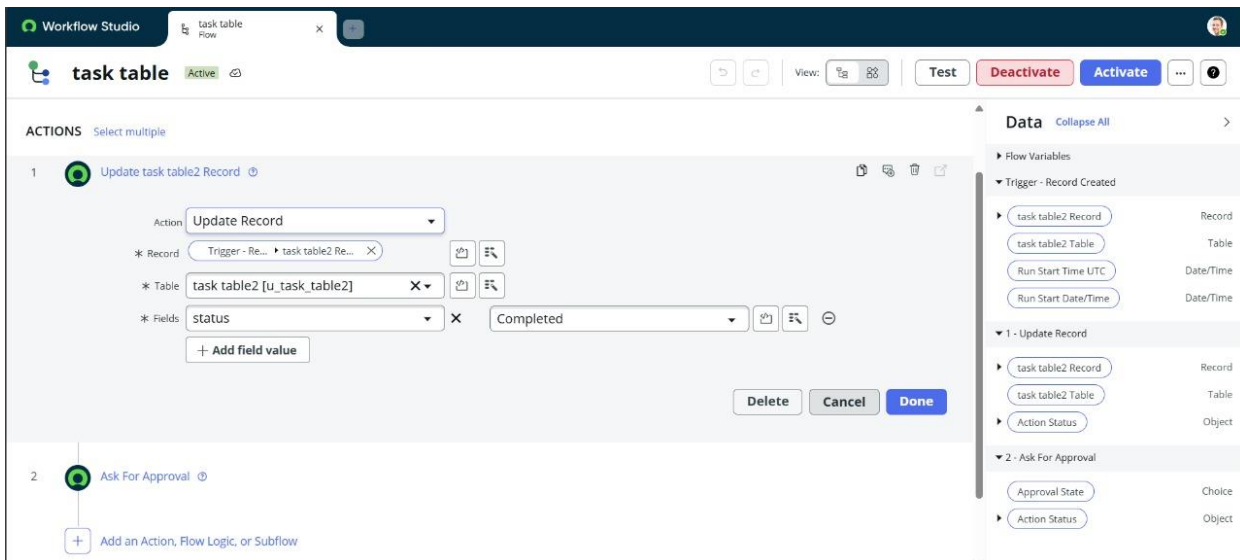
## Milestone 4: Create Update Set

- Navigated to: **Local Update Sets**
- Created a new update set: AccessControlWorkflow
- Made it current for capturing all customizations

---

## Milestone 5: Role Definition Table Creation

- Created a new table: Role Definitions
- Fields included: Role Name, Permissions, Description
- Configured auto-numbering and number maintenance with prefix: RWF



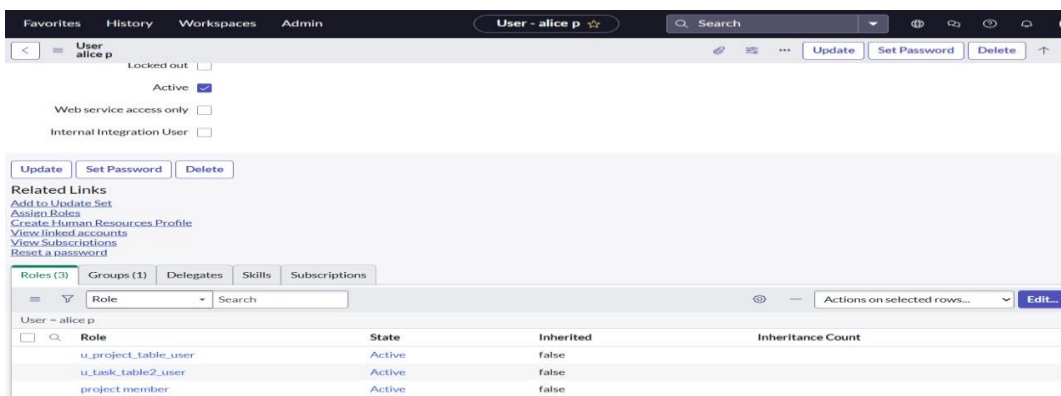
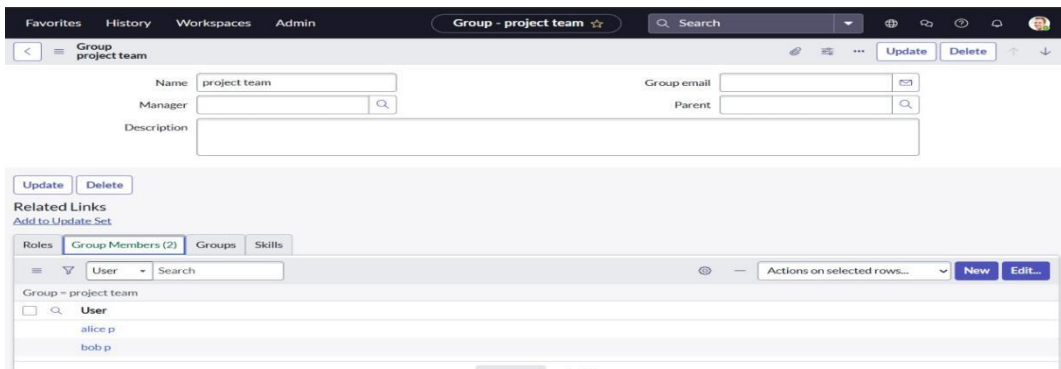
## Milestone 6: User and Group Table Creation

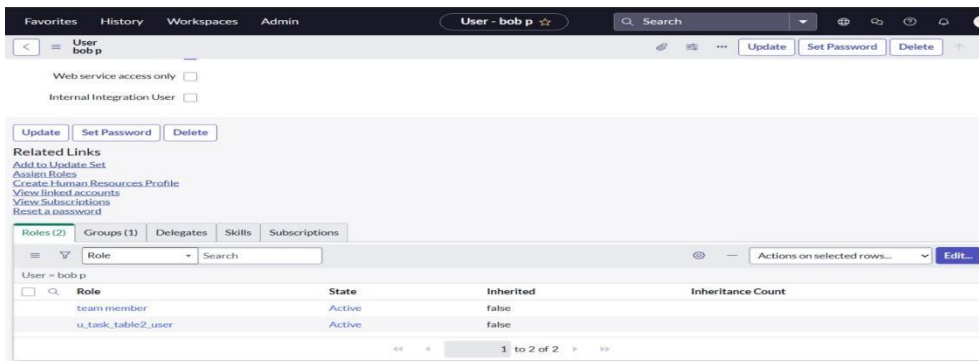
- Created two tables:

**User Management** – stores user details and assigned roles

**Group Management** – stores group names, members, and linked permissions

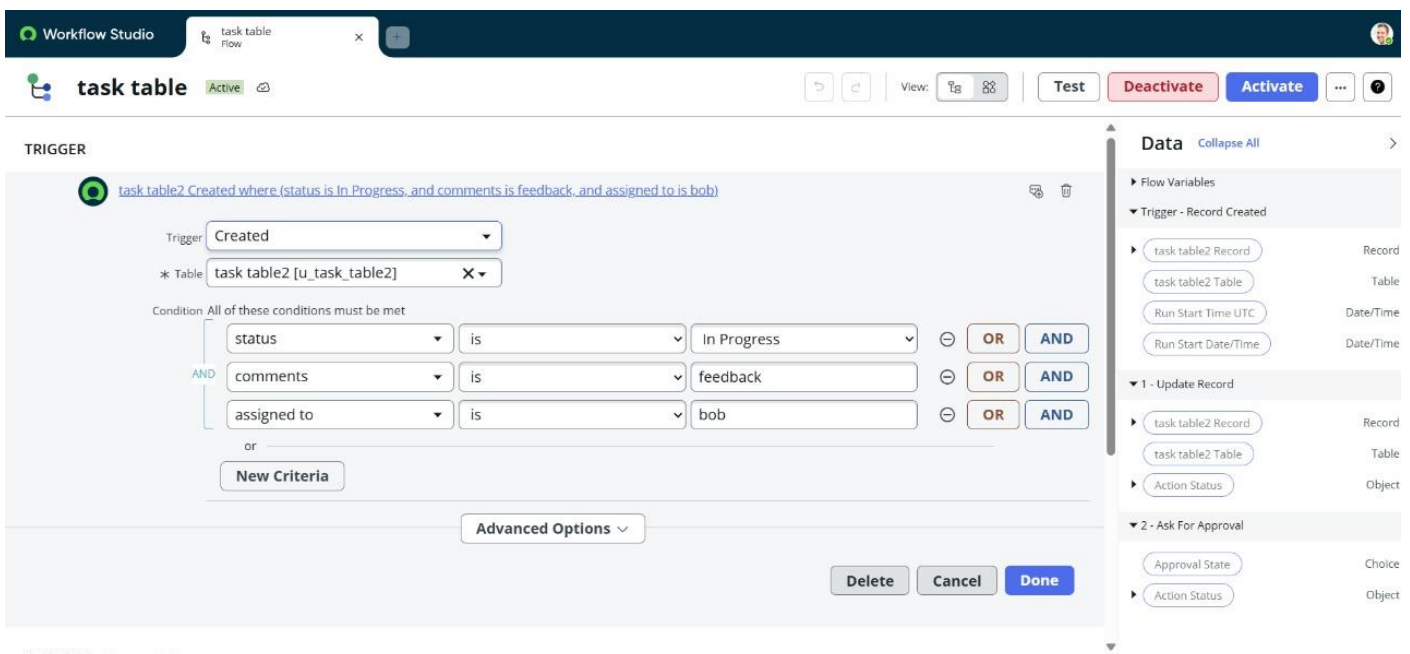
- Linked Users to Groups and Roles via reference fields





## Milestone 7: Workflow Implementation

- Designed a workflow for task management with the following states:
  - Task Created
  - Task Assigned
  - In Progress
  - Completed
  - Closed by Manager
- Used ServiceNow Flow Designer to automate transitions and set up notifications



FavoritesHistoryWorkspaces

task table2 - Created 2025-06-26 20:00:34

Search

task table2  
Created 2025-06-26 20:00:34

UpdateDelete

task id

assigned to

due date

task name

comments

status

UpdateDelete

Related Links

Add to Update Set

FavoritesHistoryWorkspacesAdmin

Approvals

Search

ApprovalsStateSearch

List controls = alice p

State	Approver	Comments	Approval for	Created
Approved	alice p		(empty)	2025-06-26 20:00:36

## Milestone 8: Business Rule Setup

- Created Business Rules to:
  - Prevent task reassignment by unauthorized users
  - Trigger alerts on status changes
  - Maintain logs of changes per user

Workflow Studio

task table

task table

Active

TestDeactivateActivate

ACTIONS

1 Update task table2 Record

Update Record

Record Trigger - Re... task table2 Re...

Table task table2 [u\_task\_table2]

Fields status Completed

2 Ask For Approval

Data

Flow Variables

Trigger - Record Created

task table2 Record Record

task table2 Table Table

Run Start Time UTC Date/Time

Run Start Date/Time Date/Time

1 - Update Record

task table2 Record Record

task table2 Table Table

Action Status Object

2 - Ask For Approval

Approval State Choice

Action Status Object

## Milestone 9: Configure Relationships

- Linked Task Table with User and Role tables
- Created Related Lists to display task ownership under user profiles
- Enabled Manager-only visibility to closed/completed tasks

Favorites

History

Workspaces

Admin

Table - project table ☆

Q Search

⌕

🌐

🔗

🔍

🔔

👤

<

≡

Table  
project table

🔗

⚙️

⋮

Delete

Update

Delete All Records

↑

↓

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

\* Label

Application 

Global ⓘ

\* Name

Columns

Controls

Application Access

≡

🔍

Table Columns

for text

Search

⚙️

⏪

⏩

1 to 13 of 13

⏪

⏩

—

New

Dictionary Entries

🔍	Column label	Type	Reference	Max length	Default value	Display
	Updates	Integer	(empty)		40	false
✖	project manager	String	(empty)		40	false
	Updated by	String	(empty)		40	false
✖	status	Choice	(empty)		40	false
✖	projct name	String	(empty)		40	false
	Updated	Date/Time	(empty)		40	false
✖	description	String	(empty)		40	false
✖	end date	Date	(empty)		40	false

## Milestone 10: Testing & Validation

- Tested workflows by logging in as both Alice (Manager) and Bob (Team Member)
- Verified:
  1. Bob could only update assigned tasks
  2. Alice had full access
  3. Status changes triggered alerts
  4. Unauthorized actions were blocked

FavoritesHistoryWorkspacesAdmin

Application Menu - task table2

Search

<≡Application Menu task table2

UpdateDelete

An application menu is a group of modules in the application navigator. Choose the roles that are required to access the application and add or remove modules in the related list below. [More Info](#)

\* Titletask table2

ApplicationGlobal

Active☒

Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.

Roles

u\_task\_table2\_user, project member, team member

Specifies the [menu category](#), which defines the navigation menu style. The default value is Custom Applications.

CategoryCustom Applications

The text that appears in a tooltip when a user points to this application menu

Hint

Description

UpdateDelete