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Completed the project named as  
**OPTIMIZING USER, GROUP, AND ROLE  
MANAGEMENT WITH ACCESS  
CONTROL AND WORKFLOWS**

# **OPTIMIZING USER, GROUPS AND ROLE MANAGEMENT WITH ACCESS CONTROL AND WORKFLOWS**

**Team ID: NM2025TMIDO**  
**Team Size: 4**

**Team Leader: ASWIN RAM T**  
**Team Member: SAKTHI T**  
**Team Member: SAKTHIVEL S**  
**Team Member: SHOBAN VR**

### **Problem Context:**

In a small project environment, a Project Manager (Alice) and a Team Member (Bob) are responsible for delivering tasks. However, the absence of well-defined roles, access restrictions, and structured workflows often creates confusion in responsibilities, accountability, and progress monitoring.

### **Objectives:**

1. **Role Definition:** Clearly outline the duties of Alice as Project Manager and Bob as Team Member, ensuring both responsibility and access boundaries are transparent.
2. **Access Control:** Introduce mechanisms that limit Bob's ability to create or edit projects beyond his assigned tasks, while still allowing him to view and update his responsibilities.
3. **Workflow Organization:** Establish a structured process that enables Alice to assign work, track task progress, and oversee completion in a timely and efficient manner.

**Key Skills/Tools:** Users, Groups, Roles, Tables, Access Control Lists (ACL), Workflow/Flow Designer

### **TASK INITIATION**

Milestone 1: Users

Activity 1: Create Users

1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit

The screenshot shows the ServiceNow User edit screen for a user named Alice p. The page has a header with tabs for All, Favorites, History, Workspaces, Admin, and a search bar. Below the header, the user's name is displayed. The main form contains fields for User ID (alice), First name (Alice), Last name (p), Title, Department, Email (alice@gmail.com), Language (None), Calendar integration (Outlook), Time zone (System (America/Los\_Angeles)), Date format (System (yyyy-MM-dd)), Business phone, Mobile phone, and Photo (Click to add...). There are also checkboxes for Password needs reset, Locked out, Active (checked), Web service access only, and Internal Integration User. At the bottom, there are buttons for Update, Set Password, and Delete.

User - Alice p

User ID: alice

First name: Alice

Last name: p

Title:

Department:

Email: alice@gmail.com

Language: None

Calendar integration: Outlook

Time zone: System (America/Los\_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to add...

Active:

Web service access only:

Internal Integration User:

Update Set Password Delete

Related Links: View linked accounts, View Subscriptions, Reset a password

Entitled Custom Tables Roles Groups Delegates Subscriptions User Client Certificates

Create one more user:

7. Create another user with the following details

8. Click on submit

The screenshot shows the ServiceNow User edit screen for a user named Bob p. The interface is identical to the previous screenshot, with fields for User ID (bob), First name (Bob), Last name (p), Title, Department, Email (bob@gmail.com), Language (None), Calendar integration (Outlook), Time zone (System (America/Los\_Angeles)), Date format (System (yyyy-MM-dd)), Business phone, Mobile phone, and Photo (Click to add...). Checkboxes for Active (checked), Web service access only, and Internal Integration User are present. The bottom of the screen includes a Related Links section and tabs for Entitled Custom Tables, Roles, Groups, Delegates, Subscriptions, and User Client Certificates.

User - Bob p

User ID: bob

First name: Bob

Last name: p

Title:

Department:

Email: bob@gmail.com

Language: None

Calendar integration: Outlook

Time zone: System (America/Los\_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to add...

Active:

Web service access only:

Internal Integration User:

Update Set Password Delete

Related Links: View linked accounts, View Subscriptions, Reset a password

Entitled Custom Tables Roles Groups Delegates Subscriptions User Client Certificates

## Milestone 2: Groups

### Activity 1: Create Groups

1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit.

The screenshot shows a 'Group - New Record' page in ServiceNow. The 'Name' field contains 'project team'. The 'Manager' field is empty and has a placeholder 'Search' with a magnifying glass icon. The 'Group email' and 'Parent' fields are also empty. The 'Description' field is empty. At the bottom left is a 'Submit' button.

## Milestone 3: Roles

### Activity 1: Create roles

1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit.

Role - project member

Name: project member

Application: Global

Elevated privilege:

Contains Roles

No records to display

Create one more role:

7.Create another role with the following details

8.Click on submit

Role - New Record

\* Name: team member

Application: Global

Elevated privilege:

Submit

## Milestone 4: Table

### Activity 1: Create Table

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new
5. Fill the following details to create a new table

Label: project table

Check the boxes Create module & Create mobile module

6. Under new menu name: project table
7. Under table columns give the columns

The screenshot shows the ServiceNow 'Table - New Record' page. At the top, there are tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The title bar says 'Table - New Record'. Below the title, there's a 'Search' bar and some other navigation links. The main form has fields for 'Name' (set to 'u\_project\_table') and 'Extends table'. To the right of these, there are checkboxes for 'Create module' (checked) and 'Create mobile module' (checked). Below these, there's a dropdown for 'Add module to menu' (set to '-- Create new --') and a field for 'New menu name' (set to 'project table'). At the bottom right are 'Submit' and 'Cancel' buttons. A large button at the bottom is labeled 'Remote Table'. Below the form, there's a section titled 'Dictionary Entries' with a table showing three columns: 'Column label' (with entries 'project id', 'project name', and 'project manager'), 'Type' (all listed as 'for text'), and 'Display' (all checked as 'false'). There are also 'Controls' and 'Application Access' tabs above the dictionary table.

## 8. Click on submit

The screenshot shows the ServiceNow Table - New Record interface. At the top, there are fields for 'Name' (u\_task\_table\_2) and 'Extends table'. On the right, there are options for 'Create module' (checkbox checked), 'Create mobile module' (checkbox checked), 'Add module to menu' (dropdown set to 'Create new'), and 'New menu name' (text input 'task table 2'). Below these are sections for 'Columns', 'Controls', and 'Application Access'. The 'Table Columns' section lists the following dictionary entries:

	Column label	Type	Reference	Max length	Default value	Display
X	Updated by	String	{empty}	40		false
X	Updates	Integer	{empty}	40		false
X	Updated	Date/Time	{empty}	40		false
X	Sys ID	String	{empty}	32		false
X		String	{empty}	40		false
X		String	{empty}	40		false

At the bottom, there is a 'Submit' button.

Create one more table:

9.Create another table as: task table 2 and fill with following details.

## 10. Click on submit.

The screenshot shows the ServiceNow Table - New Record interface. At the top, there are fields for 'Name' (task table 2) and 'Extends table'. On the right, there are options for 'Create module' (checkbox checked), 'Create mobile module' (checkbox checked), 'Add module to menu' (dropdown set to 'Create new'), and 'New menu name' (text input 'task table 2'). Below these are sections for 'Columns', 'Controls', and 'Application Access'. The 'Table Columns' section lists the following dictionary entries:

	Column label	Type	Reference	Max length	Default value	Display
X	Updated by	String	{empty}	40		false
X	Updates	Integer	{empty}	40		false
X	Updated	Date/Time	{empty}	40		false
X	Sys ID	Integer	{empty}	32		false
X	Created by	String	{empty}	40		false
X	Created	Date/Time	{empty}	40		false
X	task id	Integer				false
X	task name	String				false
X	assigned to	String				false
X	due date	Date				false
X	status	Choice				false
X	comments	String				false

At the bottom, there is a 'Submit' button.

## Milestone 5: Assign users to groups

### Activity 1: Assign users to project team group

1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save

The screenshot shows the ServiceNow user profile for 'User - alice p'. The top navigation bar includes links for All, Favorites, History, Workspaces, Admin, and a search bar. Below the navigation is a form with fields for Locked out (unchecked), Active (checked), Internal Integration User (unchecked), Business phone, Mobile phone, and Photo (Click to add...). At the bottom of the form are buttons for Update, Set Password, and Delete. A 'Related Links' section lists View linked accounts, View Subscriptions, and Reset a password. The 'Roles' tab is selected in the main navigation bar, and a table below shows the assigned roles:

Role	State	Inherited	Inheritance Count
(empty)	(empty)	(empty)	No records to display

## Milestone 6: Assign roles to users

### Activity 1: Assign roles to alice user

1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user
4. Under project manager

5.Click on edit

6.Select project member and save

7.click on edit add u\_project\_table role and u\_task\_table role

8.click on save and update the form.

User - alice p

Update Set Password Delete

Related Links

New linked accounts  
New Subscriptions  
Reset a password

Role	Inherited	Inheritance Count
u_project_table_user	false	
u_task_table_2_user	false	

### Activity 2: Assign roles to bob user

1. Open servicenow.Click on All >> search for user

2.Select tables under system definition

3.Select the bob p user

4.Under team member

5.Click on edit

6.Select team member and give table role and save

7. Click on profile icon Impersonate user to bob

8. We can see the task table2.

User - bob p

User ID: bob

First name: bob

Last name: p

Title:

Department:

Email: bob@gmail.com

Identity type: Human

Language: – None –

Calendar integration: Outlook

Time zone: System (America/Los\_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to add...

Active

Internal Integration User

[Update](#) [Set Password](#) [Delete](#)

**Related Links**

- New Unlinked accounts
- Show Subscriptions
- Create a password

Entitled Custom Tables Roles Groups (1) Delegates Subscriptions User Client Certificates

Group Search Actions on selected rows... New Edit...

## Milestone 7: Application access

### Activity 1: Assign table access to application

1. while creating a table it automatically create application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give the project member and team member role for task table 2 application

Application Menu - project table

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

Roles: u.project\_table\_user

Category: Custom Applications

Hint:

Description:

[Update](#) [Delete](#)

Module	Order	Search	Actions on selected rows...					
Application menu - project table			<a href="#">New</a>	<a href="#">Edit...</a>	<a href="#">Delete</a>	<a href="#">Update</a>	<a href="#">Delete</a>	
Title	Table	Active	Filter	Order	Link type	Device type	Roles	Updated

## Milestone 8: Access control list

### Activity 1: Create ACL

1. Open service now.
2. Click on All >> search for ACL
3. Select Access Control (ACL) under system security
4. Click on elevate role
5. Click on new

The screenshot shows the ServiceNow Access Controls interface. At the top, there's a warning message: "Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL." Below this, the form fields are visible:

- Type: record
- Operation: write
- Decision Type: Allow If
- Application: Global
- Active: checked
- Advanced: unchecked
- Admin overrides: checked
- Protection policy: None
- Name: \* (empty field)
- Description: (empty text area)
- Applies To: Add Filter Condition, Add OR Clause

Below the main form, there's a section titled "Conditions" which is currently empty.

6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields
12. Click on profile on top right side
13. Click on impersonate user

14. Select bob user

15. Go to all and select task table2 in the application menu bar

16. Comment and status fields have the edit access

## Milestone 9: Flow

Activity 1: Create a Flow to Assign operations ticket to group

1. Open service now.

2. Click on All >> search for Flow Designer

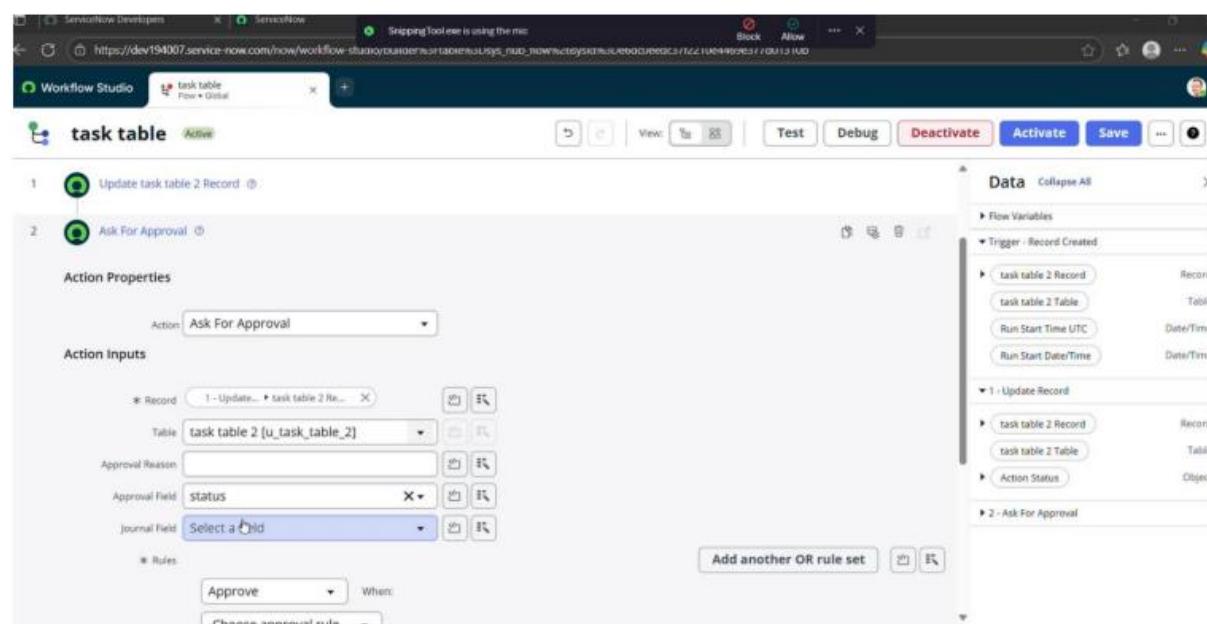
3. Click on Flow Designer under Process Automation.

4. After opening Flow Designer Click on new and select Flow.

5. Under Flow properties Give Flow Name as “task table”.

6. Application should be Global.

7. Click build flow.

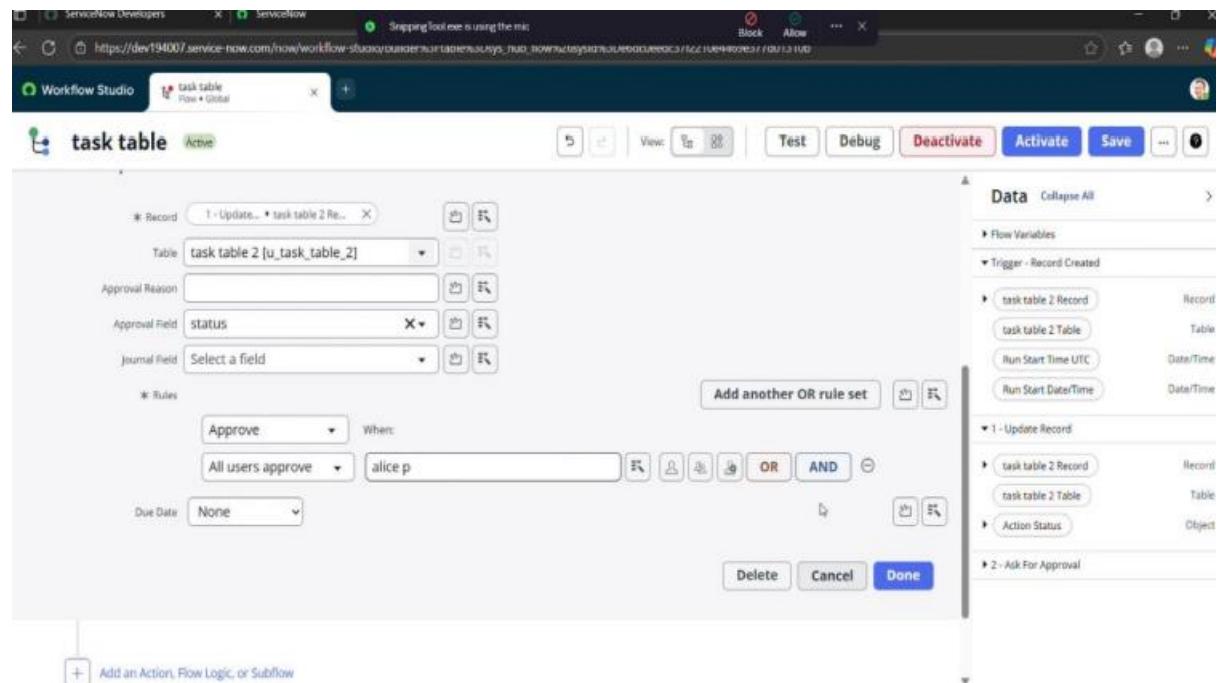


next step:

1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “task table”.
4. Give the Condition as Field: status Operator: is Value: in progress  
Field: comments Operator: is Value: feedback  
Field: assigned to Operator: is Value: bob
5. After that click on Done.

Next step:

1. Click on Add an action.
2. Select action in that, search for “update records”.
3. In Record field drag the fields from the data navigation from Right Side (Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.



Next step:

1. Now under Actions.
2. Click on Add an action.
3. Select action in that, search for “ask for approval”.
4. In Record field drag the fields from the data navigation from Right side 5. Table will be auto assigned after that
6. Give the approve field as “status”
7. Give approver as alice p
8. Click on Done.
9. Go to application navigator search for task table.
10. It status field is updated to completed
11. Go to application navigator and search for my approval
12. Click on my approval under the service desk.
13. Alice p got approval request then right click on requested then select approved

The screenshot shows the ServiceNow Approvals list view. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', 'Approvals', 'Search', and 'Actions on selected rows...'. The main area displays a table with columns: State, Approver, Comments, Approval for, and Created. The table lists various approval requests, some of which are marked as 'Approved' (indicated by a green circle icon). The 'Created' column shows dates ranging from 2024-09-01 to 2024-10-22. The 'Approval for' column contains CHG0000096, CHG0000095, and CHG0000095. The 'Comments' column often contains '(empty)' or names like 'alice p', 'Fred Luddy', etc. The 'Approver' column also lists names like 'Howard Johnson', 'Ron Kettering', 'Luke Wilson', 'Christen Mitchell', 'Bernard Laboy', etc. The 'State' column shows status icons: green for Approved, red for Rejected, yellow for Requested, and grey for Pending.

All	State	Approver	Comments	Approval for	Created
	Search	Search	Search	Search	Search
	Approved	alice p	(empty)		2024-10-22 22:19
	Rejected	Fred Luddy	(empty)		2024-09-01 12:19:33
	Requested	Fred Luddy	(empty)		2024-09-01 12:17:03
	Requested	Fred Luddy	(empty)		2024-09-01 12:15:44
	Requested	Howard Johnson	CHG0000096		2024-09-01 06:15:29
	Requested	Ron Kettering	CHG0000096		2024-09-01 06:15:29
	Requested	Luke Wilson	CHG0000096		2024-09-01 06:15:29
	Requested	Christen Mitchell	CHG0000096		2024-09-01 06:15:29
	Requested	Bernard Laboy	CHG0000096		2024-09-01 06:15:29
	Requested	Howard Johnson	CHG0000095		2024-09-01 06:15:25
	Requested	Ron Kettering	CHG0000095		2024-09-01 06:15:25
	Requested	Luke Wilson	CHG0000095		2024-09-01 06:15:25
	Requested	Christen Mitchell	CHG0000095		2024-09-01 06:15:25
	Requested	Bernard Laboy	CHG0000095		2024-09-01 06:15:25

Conclusion:

This approach provides a streamlined system for managing projects by defining roles, applying access restrictions, and organizing workflows. It helps the team collaborate effectively, improves accountability, simplifies task tracking, and ensures successful project delivery.