

**PROJECT TITLE**

**OPTIMIZING USER, GROUP, AND ROLE  
MANAGEMENT WITH ACCESS CONTROL AND  
WORKFLOWS**

Team Id	NM2025TMID00858
Team size	4
Team Leader	AFRIN NISHA B
Team Member	GNANA SARASWATHI G
Team Member	ABI A
Team Member	JEYA NIVEDHA P

## **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 management interface. The top navigation bar includes the ServiceNow logo, navigation tabs (All, Favorites, History, Workspaces, Admin), a user profile dropdown (User - Alice p), and a search bar. The main content area is titled 'User Alice p' and contains two columns of form fields. The left column includes fields for User ID (alice), First name (Alice), Last name (p), Title, Department, and checkboxes for Password needs reset, Locked out, Active (checked), Web service access only, and Internal Integration User. The right column includes fields for 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 a Photo field with a 'Click to add...' link. Below the form fields are 'Update', 'Set Password', and 'Delete' buttons. A 'Related Links' section contains links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the bottom, there is a tabbed interface with 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles' tab is currently selected, showing a table with columns for 'Table' and 'Search'.

ServiceNow

User - Alice p

User ID:

First name:

Last name:

Title:

Department:

Password needs reset: ☐

Locked out: ☐

Active: ☒

Web service access only: ☐

Internal Integration User: ☐

Email:

Language:

Calendar integration:

Time zone:

Date format:

Business phone:

Mobile phone:

Photo: [Click to add...](#)

Update Set Password Delete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

[Reset a password](#)

Entitled Custom Tables Roles Groups Delegates Subscriptions User Client Certificates

Table Search

Create one more user:

7. Create another user with the following details

8. Click on submit

The screenshot shows the ServiceNow user interface for editing a user profile. The browser tabs include 'stan.madhavan login - Search', 'Student', 'developer.servicenow.com - Ser...', 'ServiceNow Developers', and 'Bob p | User | ServiceNow'. The URL is a long alphanumeric string. The page header shows 'User - Bob p' and a search bar. The main content area is divided into two columns of form fields. The left column contains 'User ID' (with a blue highlight), 'First name' (Bob), 'Last name' (p), 'Title' (with a dropdown arrow), 'Department' (with a search icon), and several checkboxes: 'Password needs reset', 'Locked out', 'Active' (checked), 'Web service access only', and 'Internal integration user'. The right column contains 'Email' (bob@gmail.com), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone', and 'Mobile phone'. Below these fields are buttons for 'Update', 'Set Password', and 'Delete'. At the bottom, there are 'Related Links' (New linked accounts, New Subscriptions, Reset a password) and a tabbed interface with 'Enabled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. A table header is visible at the very bottom with columns for 'Table' and 'Search'.

## 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 the 'Group - New Record' form in ServiceNow. The 'Name' field is filled with 'project team'. The 'Manager' field has a search icon. The 'Group email' and 'Parent' fields also have search icons. The 'Description' field is empty. A 'Submit' button is located at the bottom left of the form.

## Milestone 3: Roles

### Activity 1: Create roles

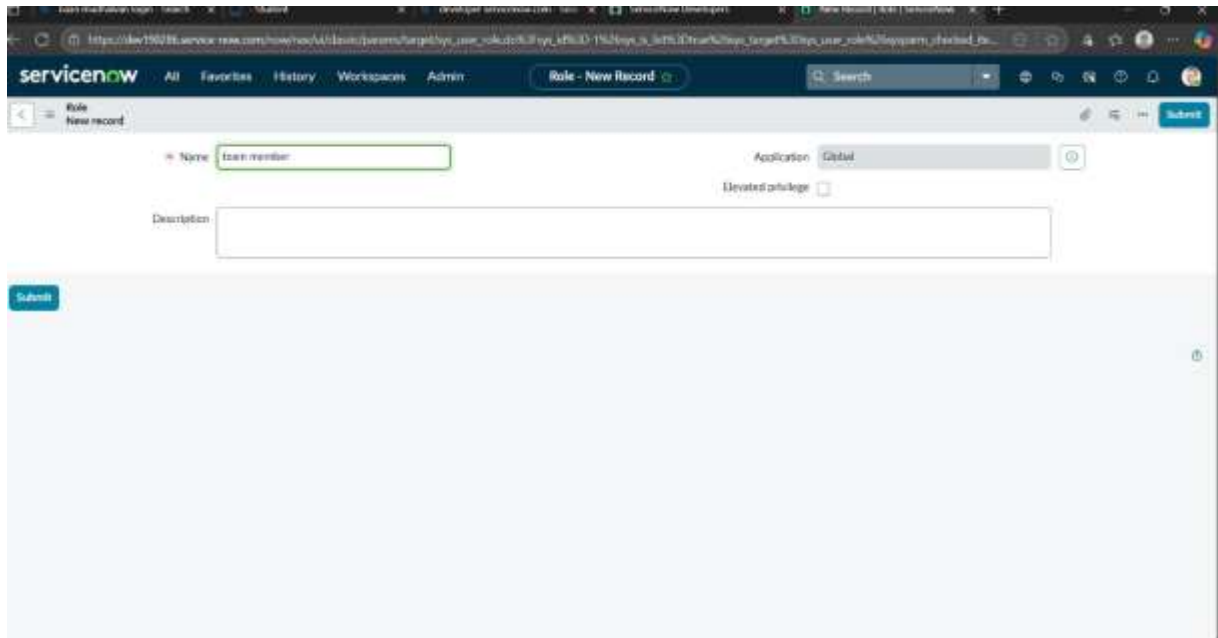
1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit.

The screenshot shows the 'Role - project member' form in ServiceNow. The 'Name' field is filled with 'project member'. The 'Application' field is filled with 'Global'. The 'Description' field is empty. Below the form, there are tabs for 'Contains Roles', 'Applications with Role', 'Metadata with Role', and 'Custom Tables'. The 'Contains Roles' tab is active, showing a search bar and a 'No records to display' message.

Create one more role:

7. Create another role with the following details

8. Click on submit



The screenshot shows the ServiceNow 'Role - New Record' form. The 'Name' field is filled with 'team member'. The 'Application' dropdown is set to 'Global'. The 'Elevated privilege' checkbox is unchecked. A 'Description' text area is empty. A 'Submit' button is visible at the bottom left.

## 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

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record Submit Cancel

\* Name: u\_project\_table

Extends table:

Create module ☒

Create mobile module ☒

Add module to menu: --Create new--

New menu name: project table

Remote Table ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
X	project id					false
X	project name					false
X	project manager					false
	id					

8. Click on submit

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record Submit Cancel

\* Name: u\_project\_table

Extends table:

Create module ☒

Create mobile module ☒

Add module to menu: --Create new--

New menu name: task table 2

Remote Table ☐

Columns Controls Application Access

Table Columns Column label Search

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		(empty)	32		false
X			(empty)	40		false
X			(empty)	40		false

Insert a new row...

## 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 'Table - New Record' form in ServiceNow. The form is titled 'Table - New Record' and has a search bar. Below the search bar is a table of dictionary entries. The table has columns: Column label, Type, Reference, Max length, Default value, and Display. The entries are as follows:

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

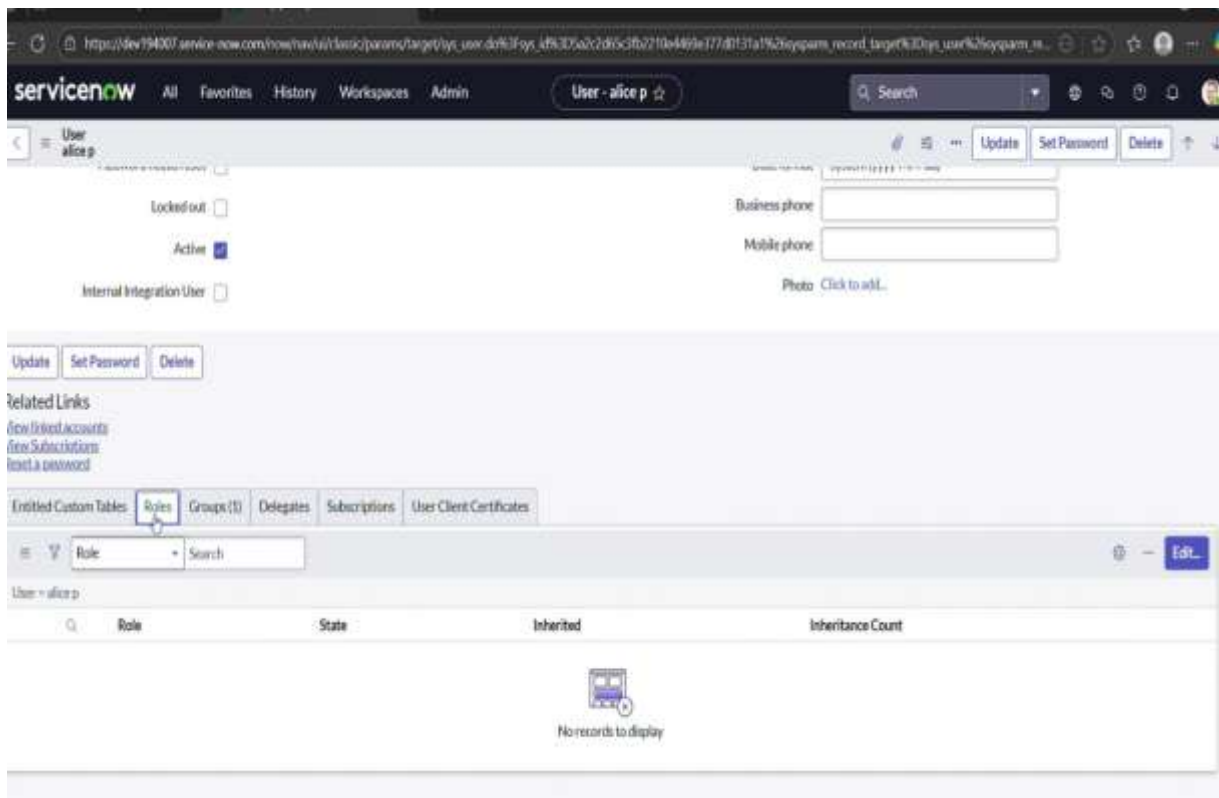
At the bottom of the form, there are 'Submit' and 'Cancel' buttons. Below the buttons is a 'Related Links' section.

## 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





## 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.

**servicenow** All Favorites History Workspaces Admin User - alice p Search

User - alice p

Update Set Password Delete

☐ Password needs reset  
☐ Locked out  
☒ Active  
☐ Internal Integration User

Date format: System (yyyy-MM-dd)

Business phone

Mobile phone

Photo Click to add...

Update Set Password Delete

Related Links

[View linked accounts](#)  
[View Subscriptions](#)  
[Reset a password](#)

Entitled Custom Tables: **Roles (2)** Groups (1) Delegates Subscriptions User Client Certificates

Role Search

Actions on selected rows... Edit...

User - alice p

Role	State	Inherited	Inheritance Count
<a href="#">u_project_table_user</a>	Active	false	
<a href="#">u_task_table_2_user</a>	Active	false	

1 to 2 of 2

## 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.

The screenshot shows the ServiceNow 'User' form for a user named 'bob p'. The form is divided into two main sections: personal information on the left and system/communication details on the right. The left section includes fields for User ID, First name, Last name, Title, Department, Password needs reset, Locked out, Active, and Internal integration user. The right section includes Email, Mobile type, Language, Calendar integration, Time zone, Date format, Business phone, Mobile phone, and a Photo link. At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete', followed by 'Related Links' and a list of 'Entitled Custom Tables' including Roles, Groups, Delegation, Subscriptions, and User Client Certificate.

## Milestone 7: Application access

### Activity 1: Assign table access to application

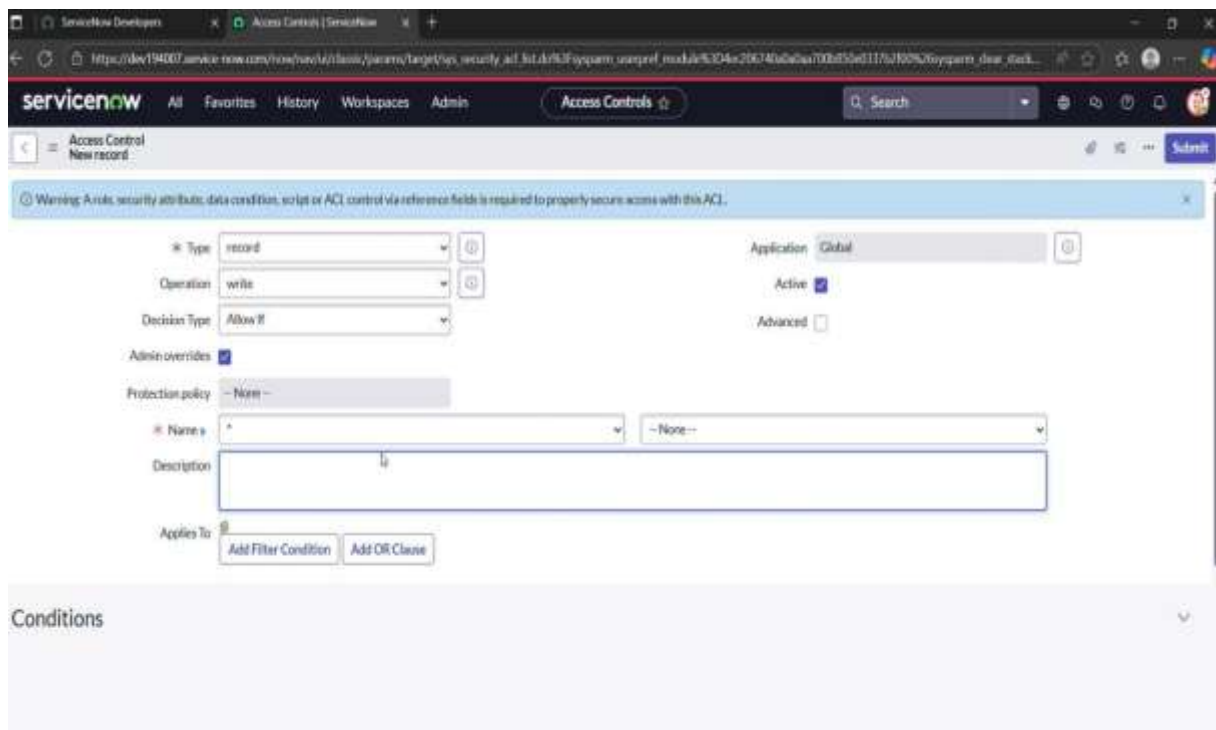
1. while creating a table it automatically create application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give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

The screenshot shows the ServiceNow 'Application Menu' form for 'project table'. The form includes a description, a 'Roles' field with a dropdown menu, a 'Category' field with a dropdown menu, and a 'Text' field. Below these fields are 'Update' and 'Delete' buttons. At the bottom, there is a table with columns for 'Title', 'Table', 'Active', 'Filter', 'Order', 'Link type', 'Device type', 'Roles', and 'Updated'. The table is currently empty.

## 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 Control' 'New record' form. At the top, there is 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.' The form fields include: 'Type' (dropdown menu), 'Operation' (dropdown menu), 'Decision Type' (dropdown menu), 'Application' (dropdown menu), 'Active' (checkbox), 'Advanced' (checkbox), 'Admin overrides' (checkbox), 'Protection policy' (dropdown menu), 'Names' (dropdown menu), and 'Description' (text area). Below the 'Names' field, there is an 'Applies To' section with 'Add Filter Condition' and 'Add OR Clause' buttons. At the bottom, there is a 'Conditions' section with a dropdown arrow.

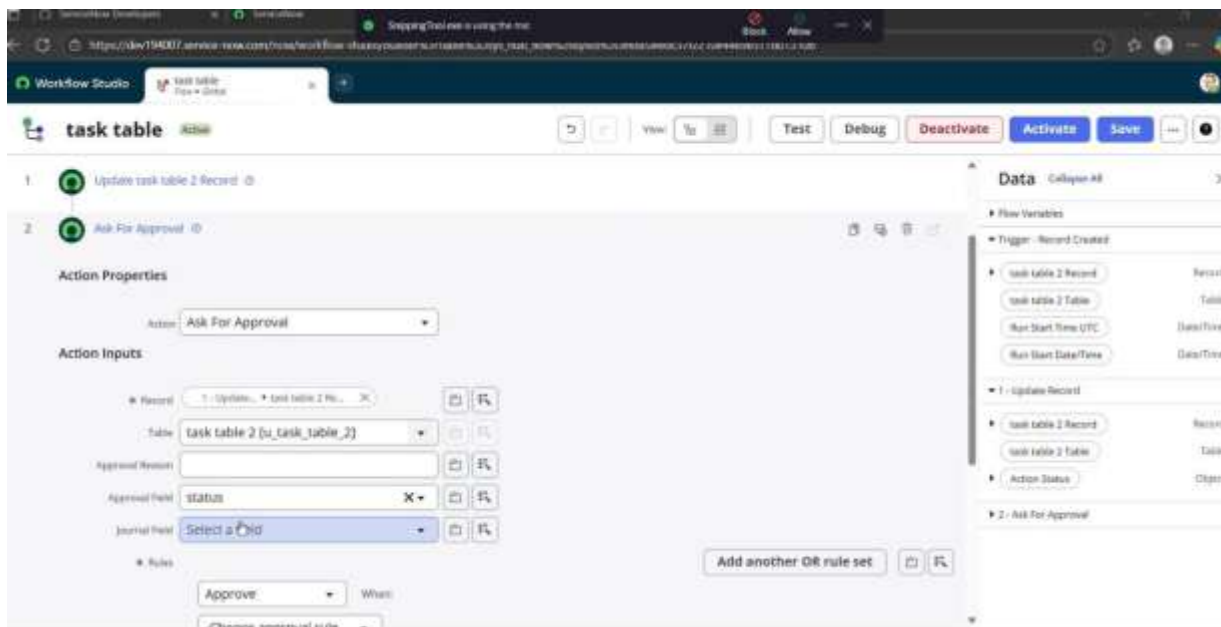
6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields
12. Click on profile on top right side

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.

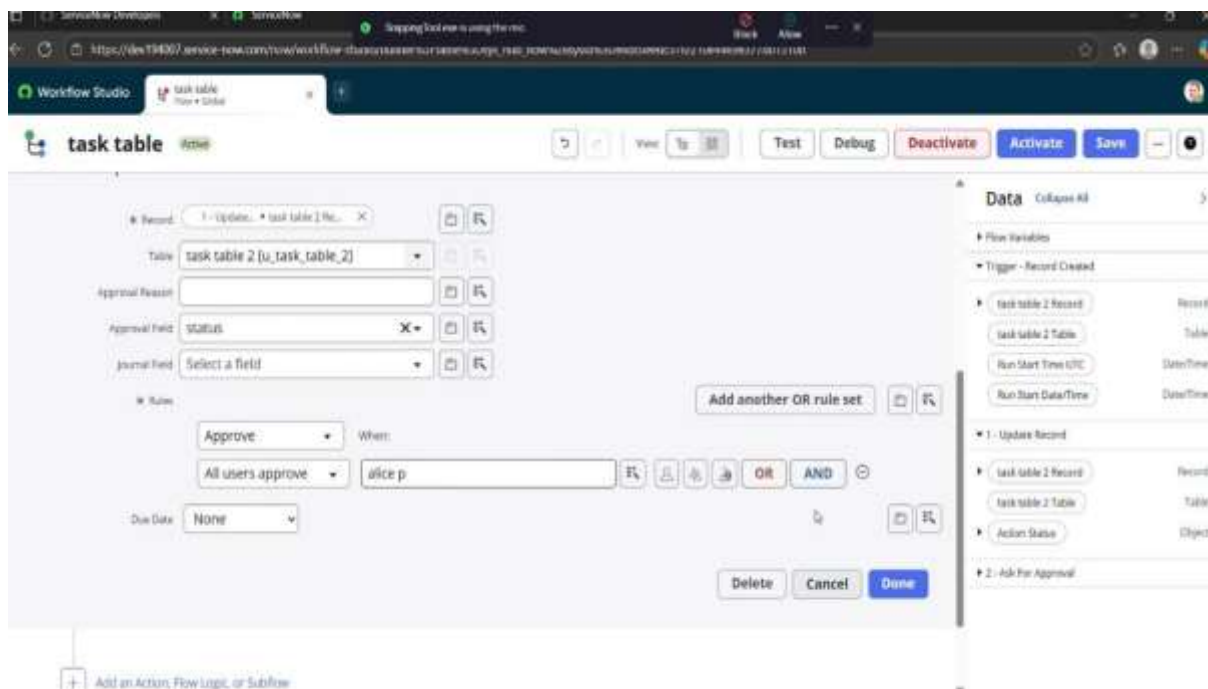
2. Select action in that, search for “update records”.

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 displays the ServiceNow 'Approvals' page. At the top, there's a navigation bar with 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and an 'Approvals' button. A search bar is also present. Below the navigation bar, there's a filter section with 'Approvals' and 'Created' dropdowns, and a search input. The main area shows a table of approval requests. The table has columns for 'State', 'Approver', 'Comments', 'Approval for', and 'Created'. The first row is highlighted in blue and shows a 'Requested' state with an approver 'alice.g.'. The subsequent rows show various 'Requested' and 'Rejected' states with different approvers and creation times. At the bottom, there's a pagination bar showing '1 to 20 of 664' items.

State	Approver	Comments	Approval for	Created
Requested	alice.g.		(empty)	2024-10-22 22:26:19
Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
Requested	Fred Luddy		(empty)	2024-09-01 12:17:33
Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
Requested	Howard Johnson		CHG0000096	2024-09-01 06:15:29
Requested	Ron Kathering		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 Kathering		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.