

PROJECT TITLE

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

Team Id	NM2025TMID02297
Team size	4
Team Leader	ANUSHIYA DEVI M
Team Member	AJITHA M
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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 for a user named 'Alice p'. The form is divided into two main sections: personal information and system settings. The personal information section includes fields for User ID, First name, Last name, Title, and Department. The system settings section includes fields for Email, Language, Calendar integration, Time zone, Date format, Business phone, and Mobile phone. There are also checkboxes for 'Password needs reset', 'Locked out', 'Active', 'Web service access only', and 'Internal Integration User'. At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete', followed by a 'Related Links' section with links to 'View linked accounts', 'View subscriptions', and 'Reset a password'. Below the form is a tabbed interface with tabs for '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'.

User ID:

First name:

Last name:

Title:

Department:

Email:

Language:

Calendar integration:

Time zone:

Date format:

Business phone:

Mobile phone:

Photo:

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' management page for a user named 'Bob p'. The interface includes a top navigation bar with 'servicenow' logo and tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The user profile is displayed with the following details:

- User ID:** bob
- First name:** Bob
- Last name:** p
- Title:** (empty)
- Department:** (empty)
- Email:** bob@gmail.com
- Language:** --None--
- Calendar integration:** Outlook
- Time zone:** System (America/Los_Angeles)
- Date format:** System (yyyy-MM-dd)
- Business phone:** (empty)
- Mobile phone:** (empty)
- Photo:** Click to add...

On the left side, there are checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), 'Web service access only', and 'Internal integration user'. At the bottom, there are tabs for 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Groups' tab is currently selected, showing a table 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 form has the following fields:

- Name: project team
- Manager: (empty)
- Description: (empty)
- Group email: (empty)
- Parent: (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 form has the following fields:

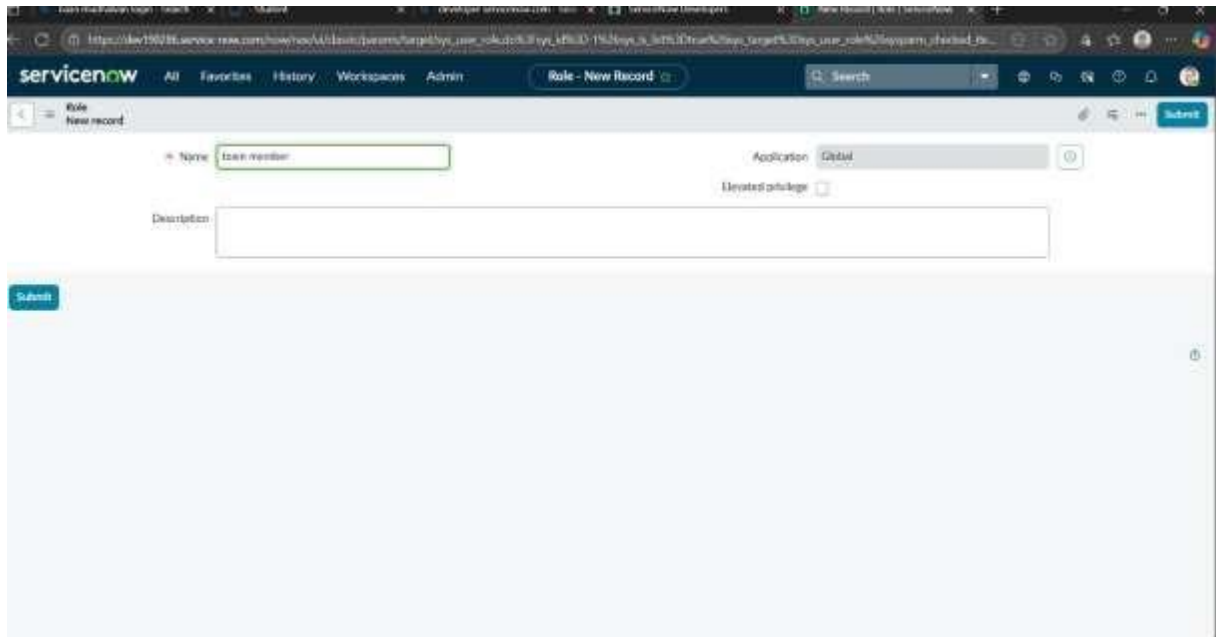
- Name: project member
- Application: Global
- Description: (empty)
- Escalated privilege: ☐

Below the form, there are four tabs: 'Contains Roles', 'Applications with Role', 'Metadata with Role', and 'Custom Tables'. The 'Contains Roles' tab is active, showing a search bar and a message 'No records to display'.

Create one more role:

7. Create another role with the following details

8. Click on submit



The screenshot shows the ServiceNow 'Rule - New Record' form. The 'Name' field is filled with 'team-member'. The 'Application' dropdown is set to 'Global'. The 'Description' field 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: look 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.

Table - New Record

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	Integer	(empty)		32	false
X	Created by	String	(empty)		40	false
X	Created	Date/Time	(empty)		40	false
X	taskid	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

Insert a new row...

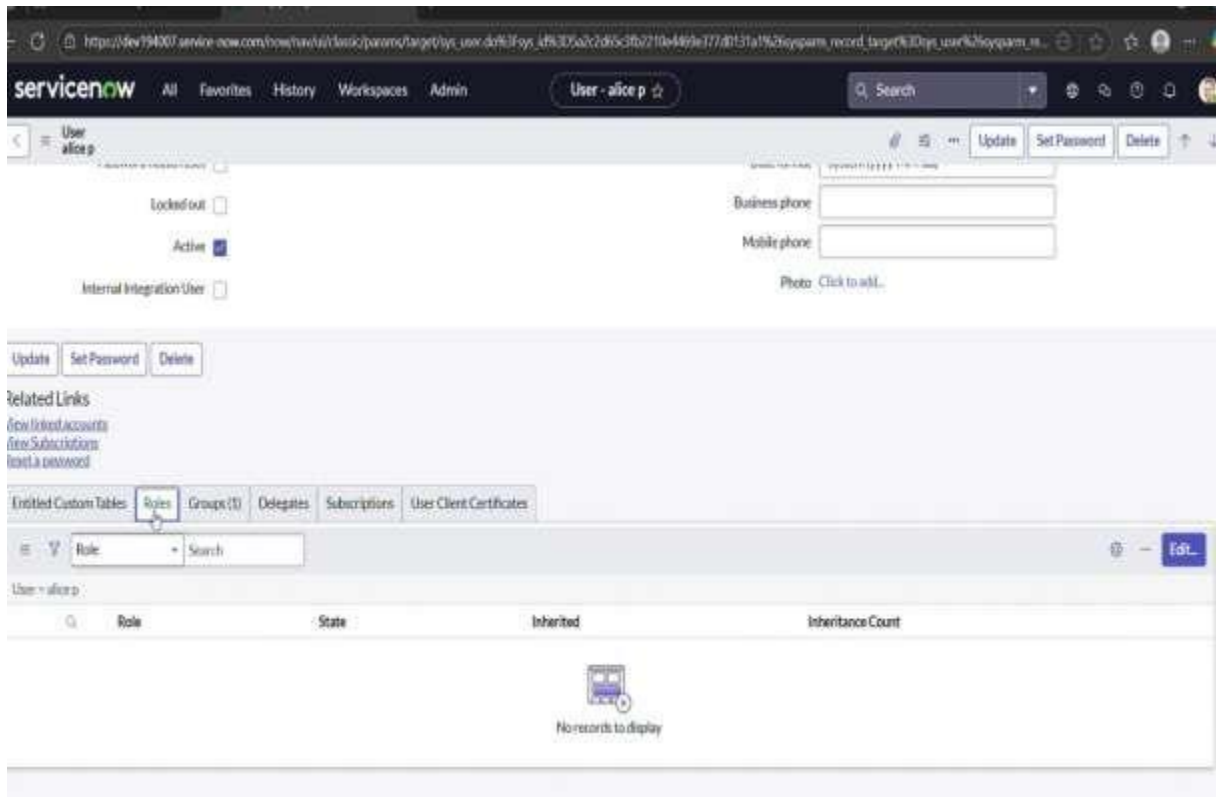
Submit Cancel

Related Links

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
u_project_table_user	Active	false	
u_task_table_2_user	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. The left section contains fields for 'User ID' (filled with 'bob'), 'First name' (filled with 'bob'), 'Last name' (filled with 'p'), 'Title', 'Department', and checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), and 'Internal integration User'. The right section contains fields for 'Email' (filled with 'bob@digital.com'), 'Monthly type' (set to 'Human'), 'Language' (set to 'None'), 'Calendar integrations' (set to 'Outlook'), 'Time zone' (set to 'System (America/Los_Angeles)'), 'Date format' (set to 'System (yyyy-MM-dd)'), 'Business phone', 'Mobile phone', and a 'Photo' field with a 'Click to add...' link. At the bottom of the form are buttons for 'Update', 'Set Password', and 'Delete'. Below the form is a section for 'Related Links' and a table for 'Enrolled Custom Tables' with columns for 'Role', 'Group', 'Delegation', 'Subscriptions', and 'User Client Certificate'.

Milestone 7: Application access

Activity 1: Assign table access to application

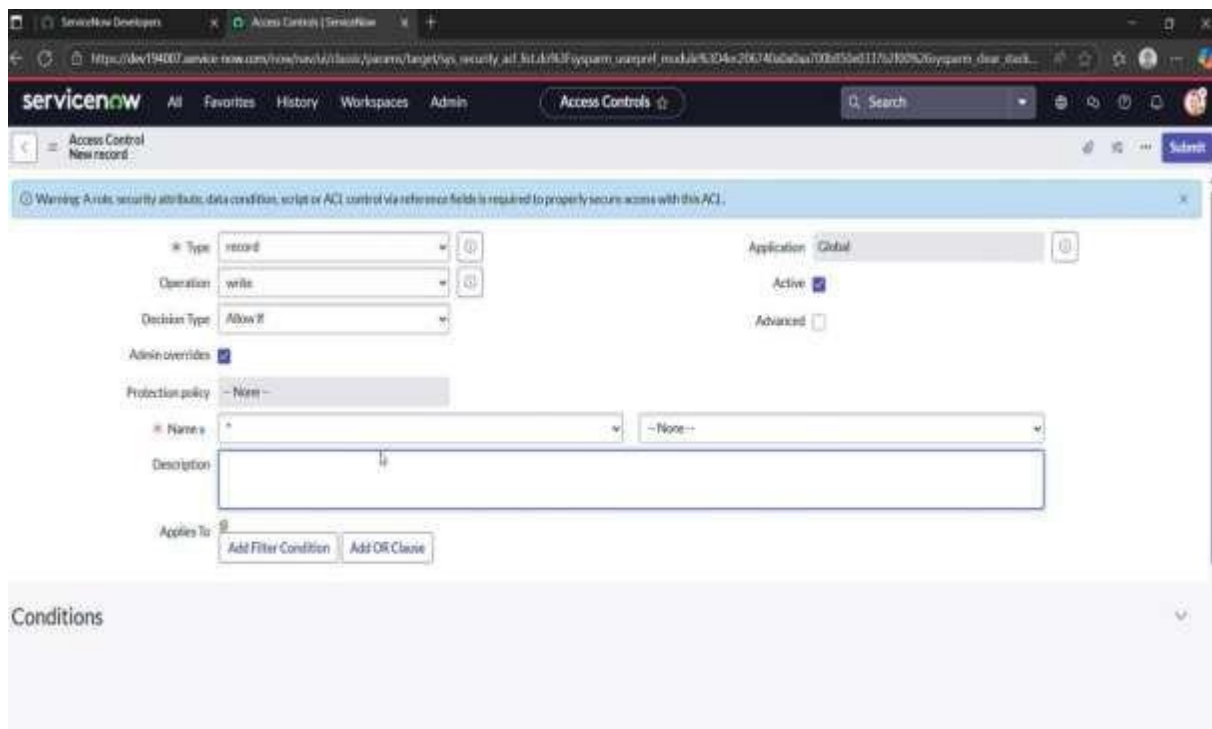
1. while creating a table it automatically create application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give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

The screenshot shows the ServiceNow 'Application Menu' form for an application named 'project table'. The form has a title bar that says 'Application Menu - project table' and buttons for 'Update' and 'Delete'. Below the title bar is a blue informational bar that reads: 'Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.' The main form area contains a 'Roles' field with a dropdown menu showing 'u.project_table.user'. Below this is another blue informational bar that reads: 'Specify the menu category, which defines the navigation menu style. The default value is Custom Applications.' This is followed by a 'Category' field with a dropdown menu showing 'Custom Applications'. Below this is another blue informational bar that reads: 'The text that appears in a tooltip when a user points to this application menu.' This is followed by 'Title' and 'Description' fields. At the bottom of the form are buttons for 'Update' and 'Delete'. Below the form 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 contains several fields: 'Type' (dropdown menu with 'record' selected), 'Operation' (dropdown menu with 'write' selected), 'Decision Type' (dropdown menu with 'Allow If' selected), 'Application' (dropdown menu with 'Global' selected), 'Active' (checkbox, checked), and 'Advanced' (checkbox, unchecked). There is also a checkbox for 'Admin overrides' which is checked. Below these is a 'Protection policy' dropdown menu with '- None -' selected. The 'Name' field is a text input with a dropdown menu showing '- None -'. The 'Description' field is a larger text input. At the bottom, there is an 'Applies To' section with buttons for 'Add Filter Condition' and 'Add OR Clause'. Below the form is a section titled 'Conditions'.

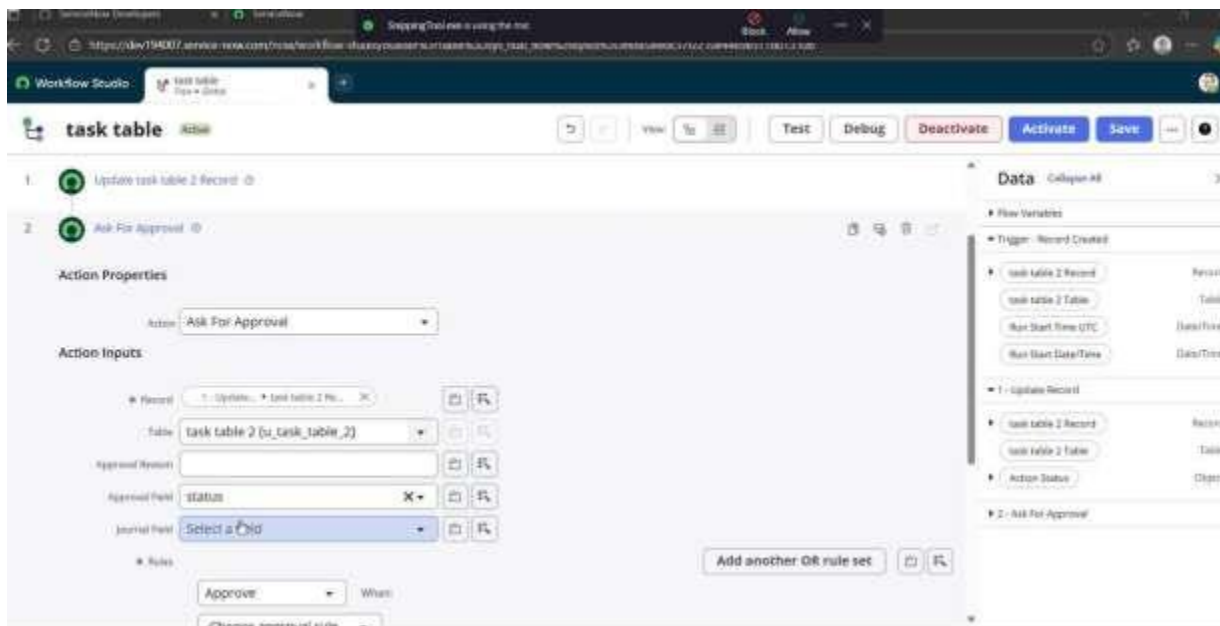
6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields
12. Click on profile on top right side

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.

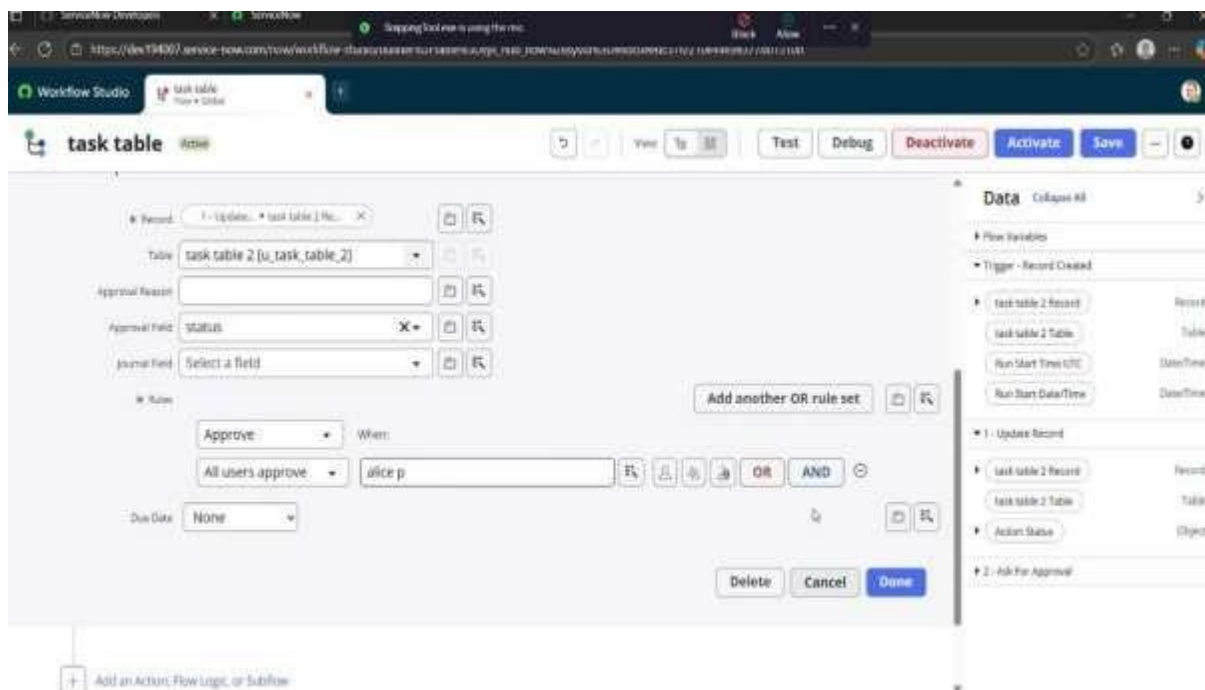
2. Select action in that, search for “update records”.

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. The interface includes a top navigation bar with 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and an 'Approvals' button. A search bar is located on the right. Below the navigation bar, there's a filter section with 'All' selected and a 'Created' dropdown. The main area contains a table of approval requests with columns for State, Approver, Comments, Approval for, and Created. The table lists various requests, mostly in a 'Requested' state, with approvers like Fred Luthy, Howard Johnson, Ron Kathering, Luke Wilson, Christen Mitchell, Bernard Laboy, and Howard Johnson. The 'Approval for' column contains IDs like CH00000096 and CH00000095. The 'Created' column shows dates from 2024-09-01 to 2024-10-22. A pagination bar at the bottom indicates '1 to 20 of 564' items.

State	Approver	Comments	Approval for	Created
Approved	alice a		(empty)	2024-10-22 22:26:19
Rejected	Fred Luthy		(empty)	2024-09-01 12:19:33
Requested	Fred Luthy		(empty)	2024-09-01 12:17:33
Requested	Fred Luthy		(empty)	2024-09-01 12:15:44
Requested	Howard Johnson		CH00000096	2024-09-01 06:15:29
Requested	Ron Kathering		CH00000096	2024-09-01 06:15:29
Requested	Luke Wilson		CH00000096	2024-09-01 06:15:29
Requested	Christen Mitchell		CH00000096	2024-09-01 06:15:29
Requested	Bernard Laboy		CH00000096	2024-09-01 06:15:29
Requested	Howard Johnson		CH00000095	2024-09-01 06:15:25
Requested	Ron Kathering		CH00000095	2024-09-01 06:15:25
Requested	Luke Wilson		CH00000095	2024-09-01 06:15:25
Requested	Christen Mitchell		CH00000095	2024-09-01 06:15:25
Requested	Bernard Laboy		CH00000095	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.