

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

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Team size:3

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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 displays the ServiceNow 'User' management page for a user named 'Alice p'. The interface includes a top navigation bar with 'All', 'Favorites', 'History', 'Workspaces', and 'Admin' tabs. A search bar is present on the right. The main form is divided into two columns. The left column contains fields for 'User ID' (filled with 'alice'), 'First name' (filled with 'Alice'), 'Last name' (filled with 'p'), 'Title' (empty), 'Department' (empty), and checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), 'Web service access only', and 'Internal Integration User'. The right column contains fields for 'Email' (filled with 'alice@gmail.com'), 'Language' (set to '-- None --'), 'Calendar integration' (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 top right of the form are buttons for 'Update', 'Set Password', and 'Delete'. Below the form, there is a 'Related Links' section with 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'. A 'Table' search bar is located at the very bottom.

Create one more user:

7. Create another user with the following details
8. Click on submit

ServiceNow User profile page for 'Bob p'.

Fields and values:

- 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...

Checkboxes:

- Password needs reset: ☐
- Locked out: ☐
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

Buttons: 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 the 'Group - New Record' form in ServiceNow. The 'Name' field is filled with 'project team'. There are also fields for 'Manager', 'Group email', 'Parent', and 'Description'. A 'Submit' button is located at the bottom left of the form area.

## 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' dropdown is set to 'Global'. There is an 'Elevated privilege' checkbox. Below the form are tabs for 'Contains Roles', 'Applications with Role', 'Modules 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 'Role - New Record' form. The form is titled 'Role - New Record' and has a 'Submit' button in the top right corner. The 'Name' field is labeled with a red asterisk and contains the text 'team member'. The 'Application' field is labeled 'Global'. The 'Elevated privilege' checkbox is unchecked. The 'Description' field is empty. A 'Submit' button is located at the bottom left of the form area.

## 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

https://dev194007.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Dsys\_db\_object%26sysparm\_checked\_items%3...

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record

\* Name

Extends table

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

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
+	<input type="text" value="st"/>					

8. Click on submit

ServiceNow Developers New Record | Table | ServiceNow

https://dev194007.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Dsys\_db\_object%26sysparm\_checked\_items%3...

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record

\* Name

Extends table

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

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	40	false
X	Updates	Integer	(empty)	40	40	false
X	Updated	Date/Time	(empty)	40	40	false
X	Sys ID		(empty)	32	32	false
X			(empty)	40	40	false
X			(empty)	40	40	false
+	<input type="text" value="(emp)"/>					

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.

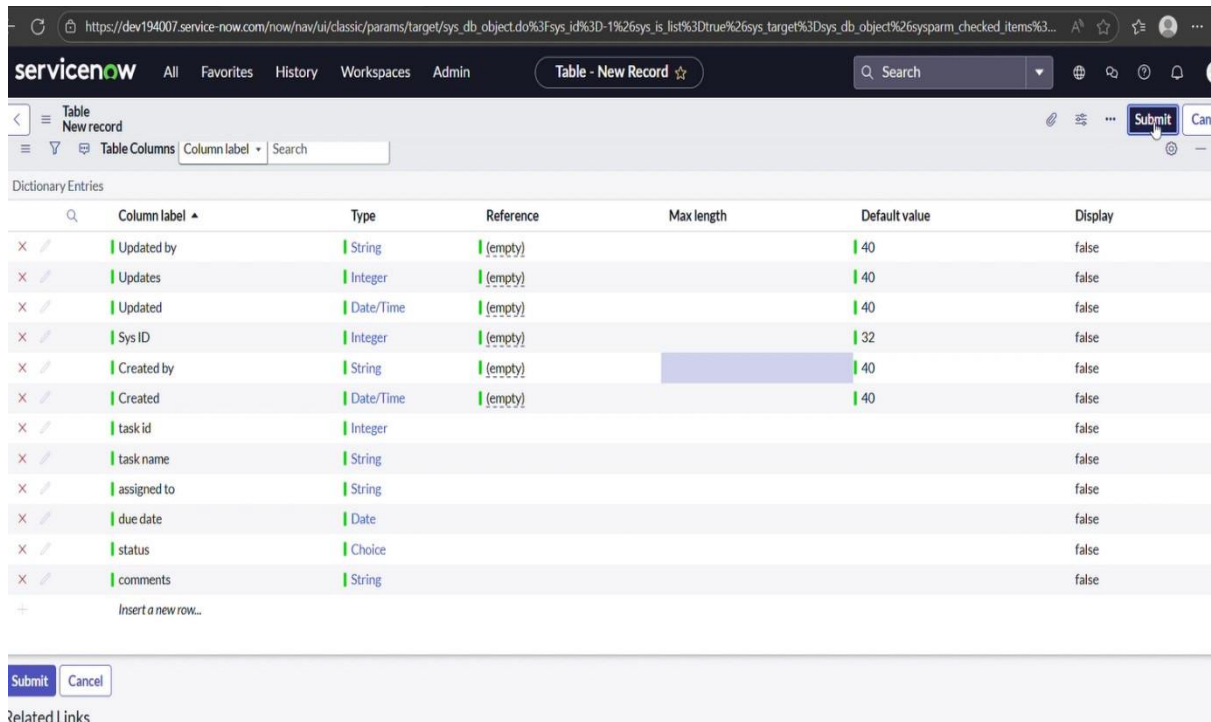


Table - New Record

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)		40	false
Updates	Integer	(empty)		40	false
Updated	Date/Time	(empty)		40	false
Sys ID	Integer	(empty)		32	false
Created by	String	(empty)		40	false
Created	Date/Time	(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

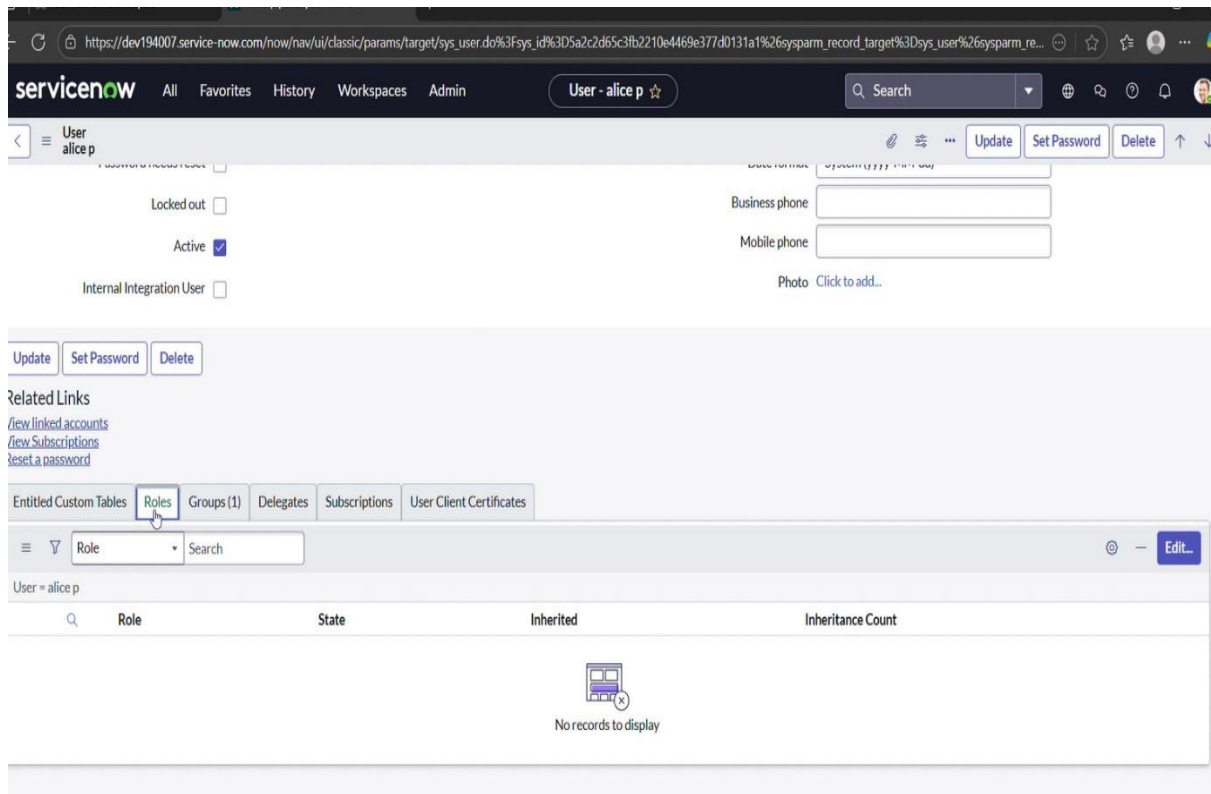
Submit Cancel

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 Q Search

User alice p Update Set Password Delete

Password needs reset ☐
 Date format System (yyyy-MM-dd)

Locked out ☐
 Business phone

Active ☒
 Mobile phone

Internal Integration User ☐
 Photo Click to add...

Update Set Password Delete

[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

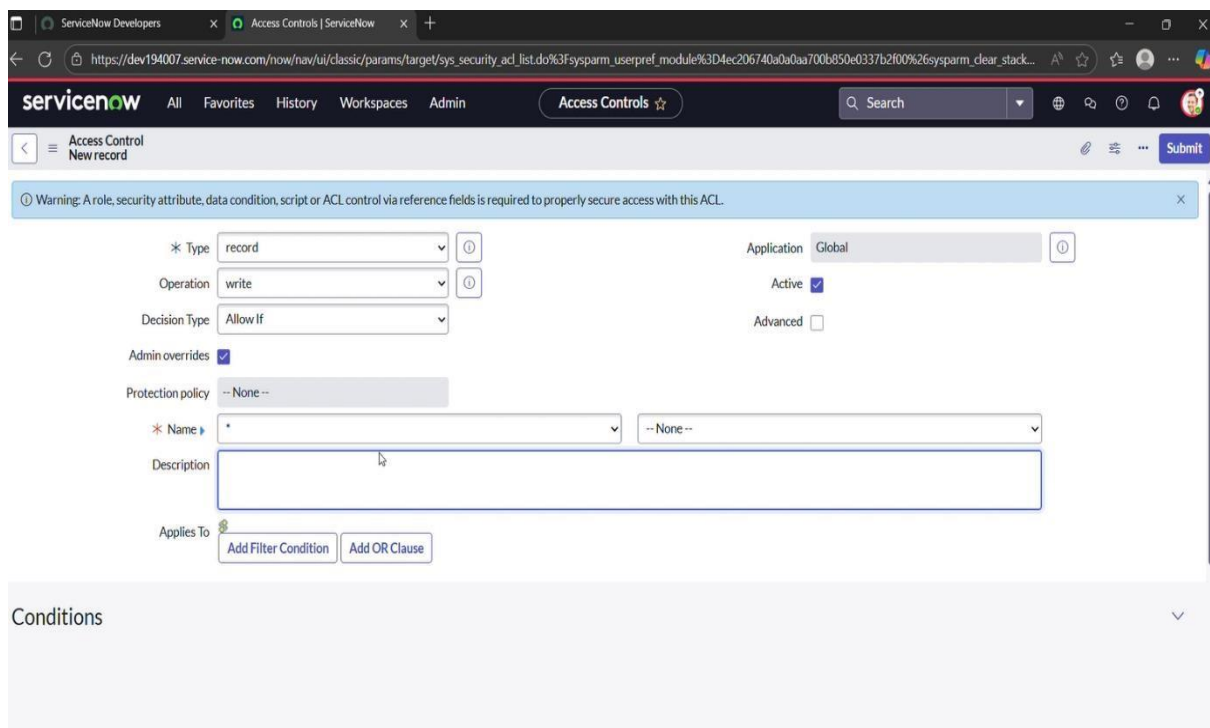
1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the bob p user
4. Under team member
5. Click on edit
6. Select team member and give table role and save
7. Click on profile icon Impersonate user to bob
8. We can see the task table2.



## 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' '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 includes several fields: 'Type' (record), 'Operation' (write), 'Decision Type' (Allow If), 'Application' (Global), 'Active' (checked), 'Advanced' (unchecked), 'Admin overrides' (checked), 'Protection policy' (None), 'Name' (a dropdown menu), and 'Description' (a text area). Below the form, there is a section for 'Applies To' with buttons for 'Add Filter Condition' and 'Add OR Clause'. At the bottom, there is a 'Conditions' section with a dropdown arrow.

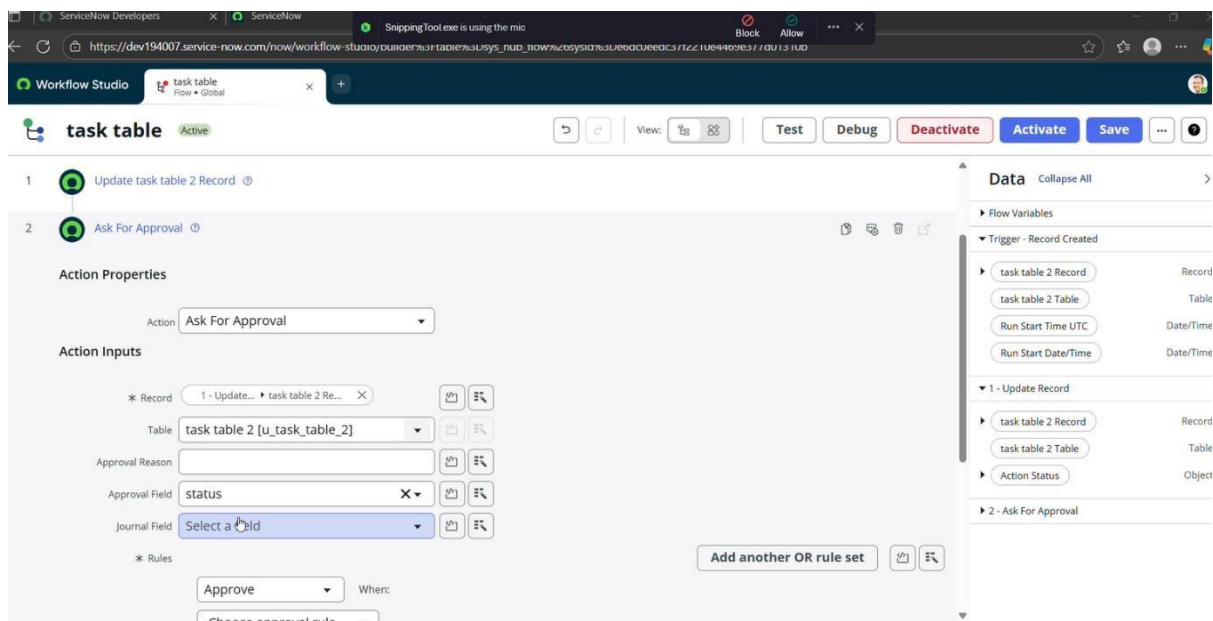
6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields
12. Click on profile on top right side

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:

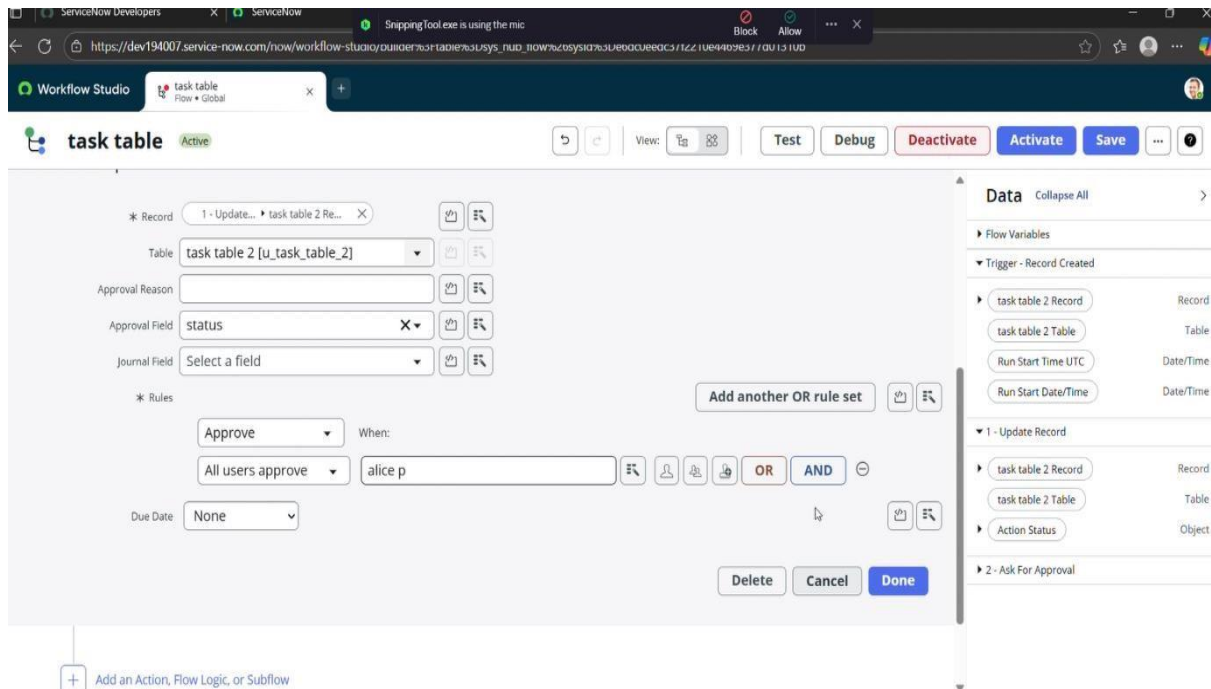
1. Click on Add an action.

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)

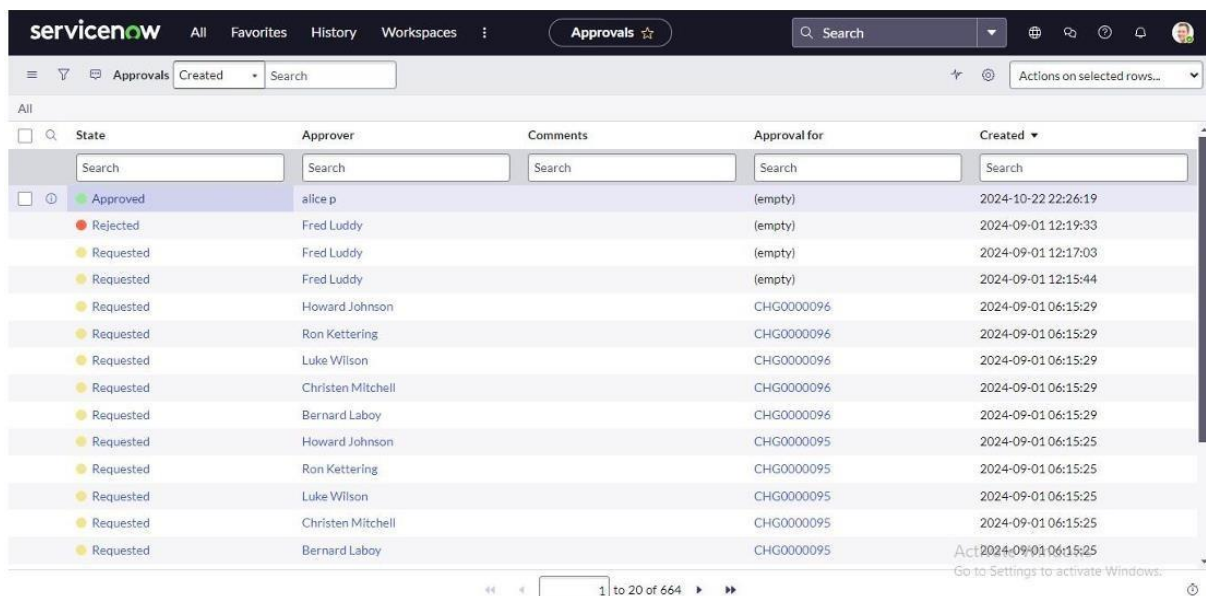
4. Table will be auto assigned after that

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. Its 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' page. The table lists various approval requests with columns for State, Approver, Comments, Approval for, and Created. The first row is highlighted as 'Approved' by 'alice p' on '2024-10-22 22:26:19'. Subsequent rows show 'Rejected' and 'Requested' states for different approvers and request IDs.

State	Approver	Comments	Approval for	Created
Approved	alice p		(empty)	2024-10-22 22:26:19
Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
Requested	Fred Luddy		(empty)	2024-09-01 12:17:03
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.