



**servicenow**



**UNIVERSITY COLLEGE OF ENGINEERING – PATTUKKOTTAI**

**RAJAMADAM – 614701**

(A CONSTITUENT COLLEGE OF ANNA UNIVERSITY, CHENNAI)

Department of  
**COMPUTER SCIENCE AND ENGINEERING**

Accompanied with  
**NAAN MUDHALVAN AND SERVICENOW  
ADMINISTRATION**

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: NM2025TMID0**

**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

ServiceNow User - Alice p

User ID:

First name:

Last name:

Title:

Department:

Email:

Language:

Calendar integration:

Time zone:

Date format:

Business phone:

Mobile phone:

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

☐ Password needs reset  
☐ Locked out  
☒ 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](#)

Table Search

Create one more user:

7. Create another user with the following details

8. Click on submit

ServiceNow User - Bob p

User ID:

First name:

Last name:

Title:

Department:

Email:

Language:

Calendar integration:

Time zone:

Date format:

Business phone:

Mobile phone:

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

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

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

Related Links

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

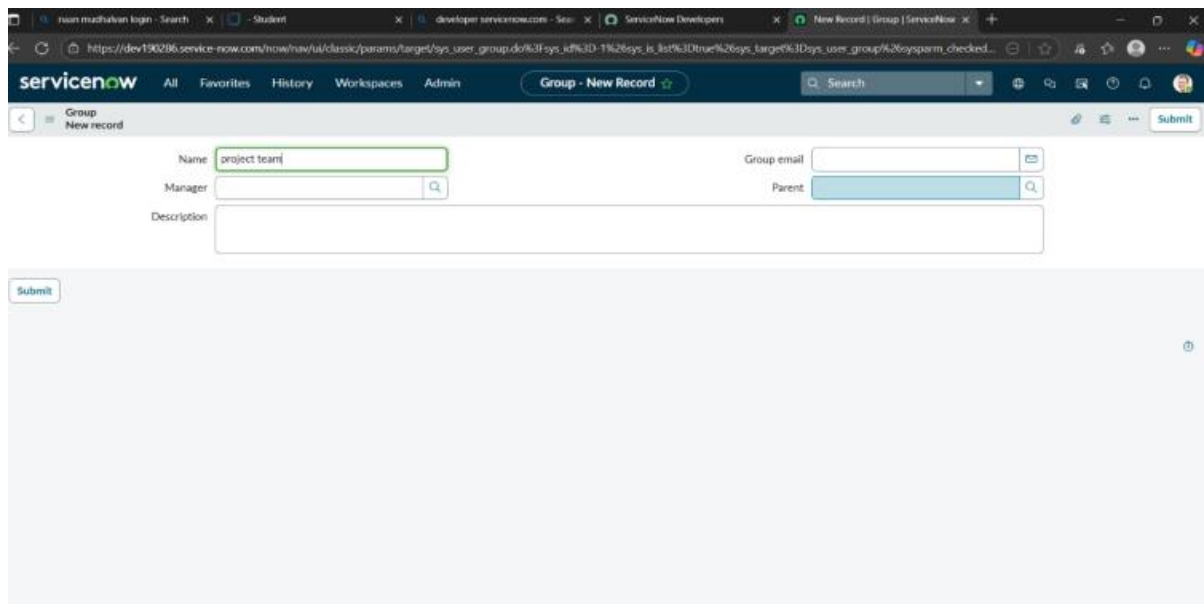
[Entitled Custom Tables](#) [Roles](#) [Groups](#) [Delegates](#) [Subscriptions](#) [User Client Certificates](#)

Table 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 ServiceNow 'Group - New Record' form. The form is titled 'Group - New Record' and has a 'Submit' button in the top right corner. The form fields are:

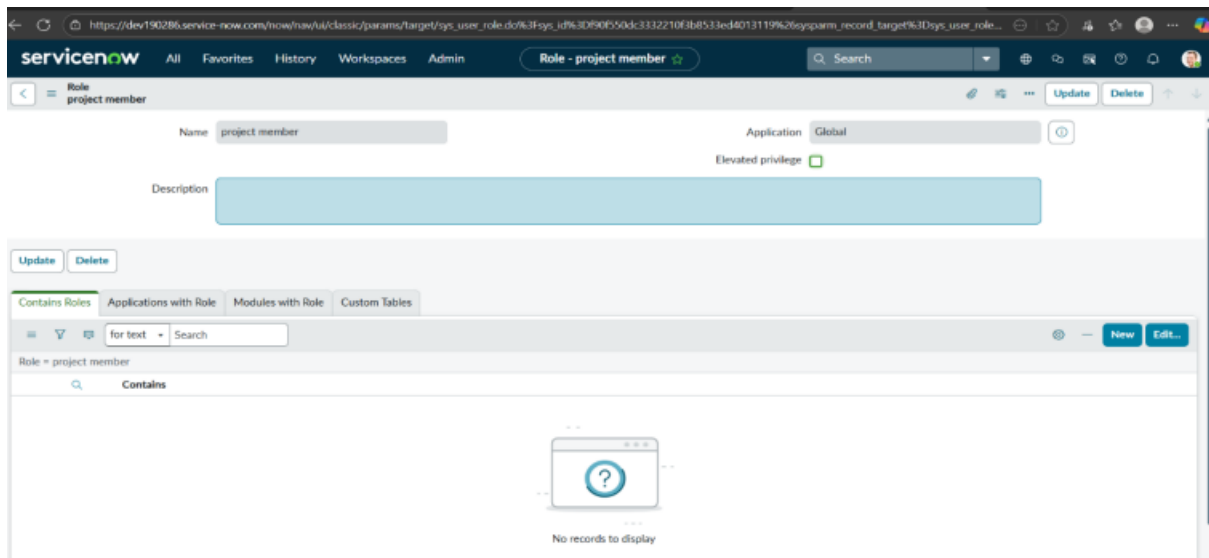
- Name: project team
- Group email: (empty)
- Manager: (empty)
- Parent: (empty)
- Description: (empty)

The 'Submit' button is located at the bottom left of the form.

## Milestone 3: Roles

### Activity 1: Create roles

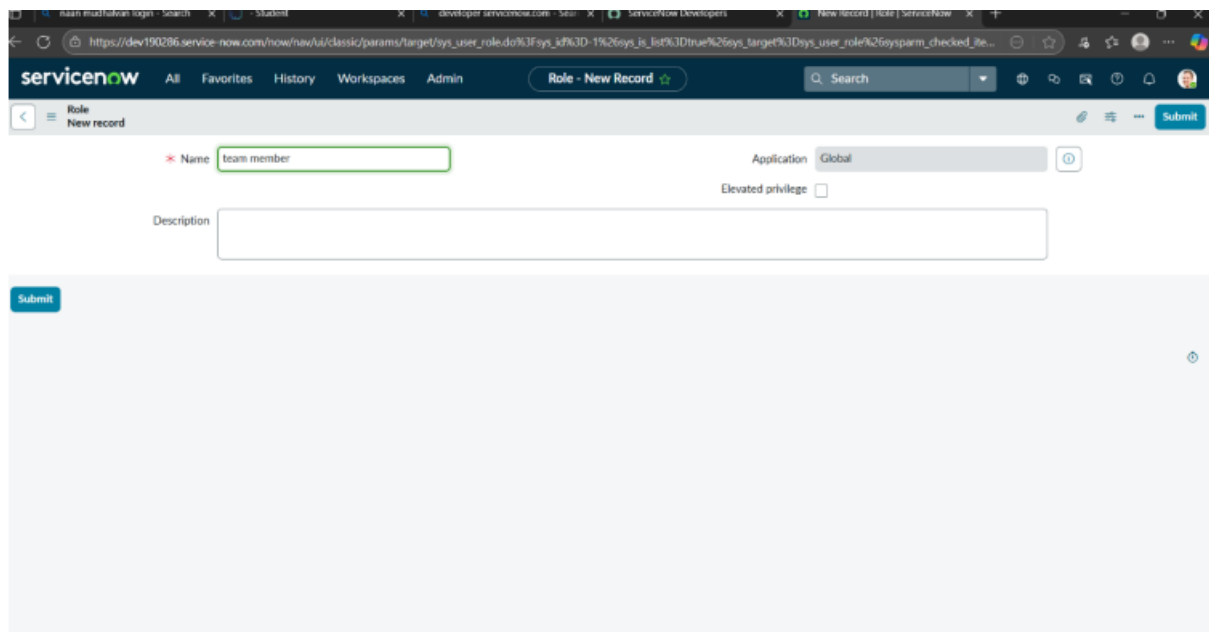
1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit.



Create one more role:

7.Create another role with the following details

8.Click on 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' form. The 'Name' field is set to 'u\_project\_table'. The 'Extends table' field is empty. The 'Create module' and 'Create mobile module' checkboxes are checked. The 'Add module to menu' dropdown is set to 'Create new'. The 'New menu name' field is set to 'project table'. The 'Remote Table' checkbox is unchecked. Below these fields are tabs for 'Columns', 'Controls', and 'Application Access'. The 'Columns' tab is active, showing a table of 'Dictionary Entries' with columns: 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. The entries are 'project id', 'project name', and 'project manager'. A new entry is being added with the label 'st'.

Column label	Type	Reference	Max length	Default value	Display
project id					false
project name					false
project manager					false
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%3D1%26sys\_is\_list%3Dtrue%26sys\_target%3Dsys\_db\_object%26sysparm\_checked\_items%3D...

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record

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
Updated by	String	{empty}	40	false	
Updates	Integer	{empty}	40	false	
Updated	Date/Time	{empty}	40	false	
Sys ID	Integer	{empty}	32	false	
		{empty}	40	false	
		{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.

ServiceNow Developers | New Record | Table | ServiceNow

https://dev194007.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3fsys\_id%3D1%26sys\_is\_list%3Dtrue%26sys\_target%3Dsys\_db\_object%26sysparm\_checked\_items%3D...

servicenow All Favorites History Workspaces Admin Table - New Record Search

Table New record

Table Columns Column label Search

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	

Insert a new row...

Submit Cancel

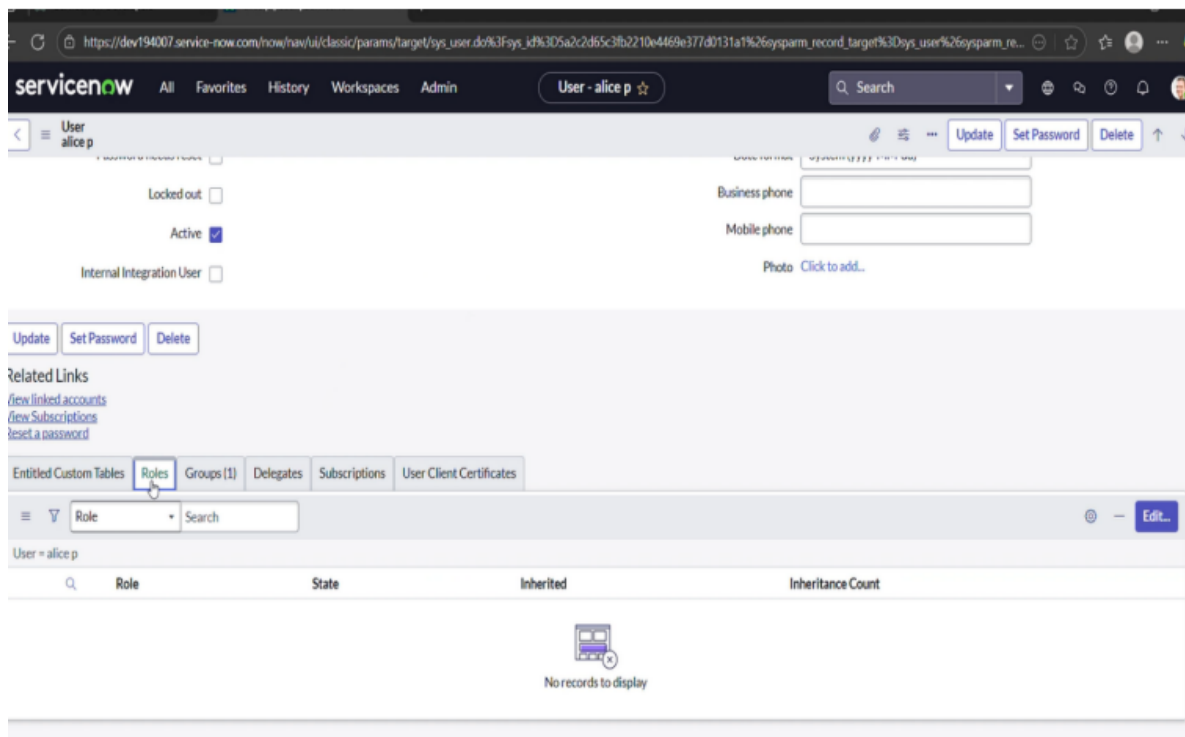
Related Links



## 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.

The screenshot shows the ServiceNow user profile page for 'User - alice p'. The page includes a header with navigation links (All, Favorites, History, Workspaces, Admin) and a search bar. The user profile section shows fields for 'Password needs reset', 'Locked out', 'Active' (checked), and 'Internal Integration User'. There are also fields for 'Date format', 'Business phone', 'Mobile phone', and a 'Photo' link. Below the profile section, there are tabs for 'Entitled Custom Tables', 'Roles (2)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles (2)' tab is selected, showing a table of roles assigned to the user.

Role	State	Inherited	Inheritance Count
u_project_table_user	Active	false	
u_task_table_2_user	Active	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

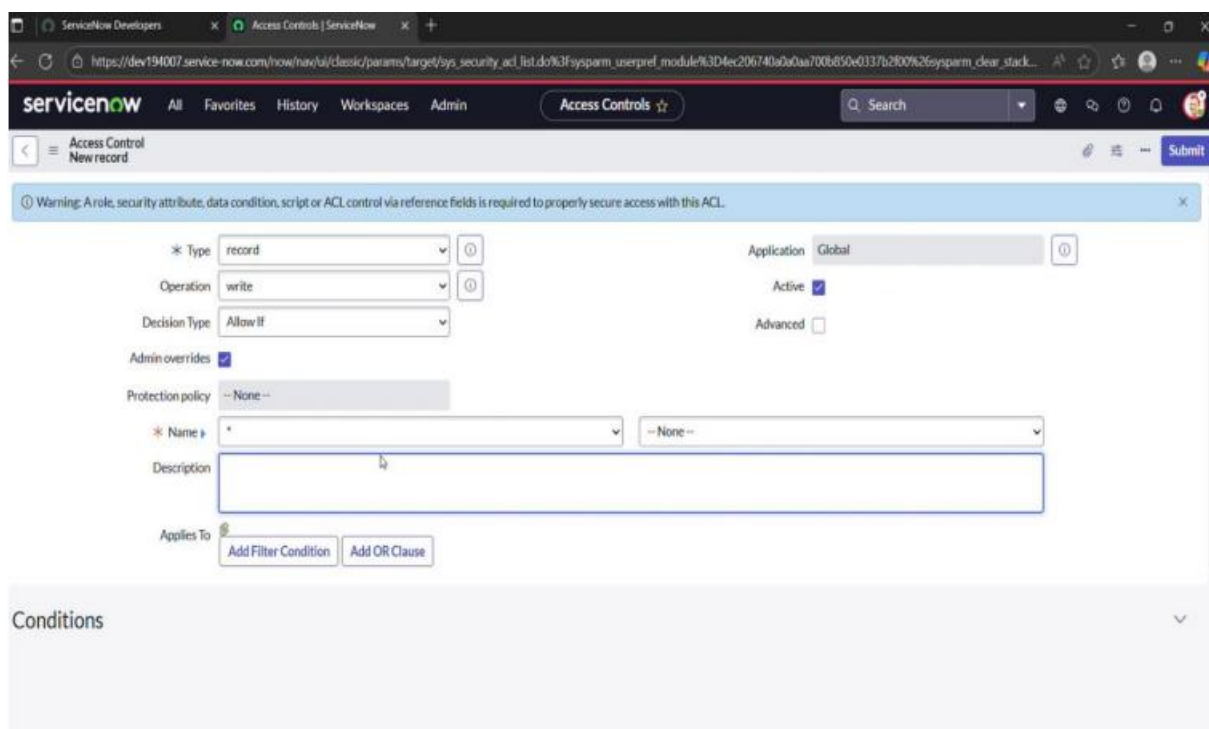
8. We can see the task table2.



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

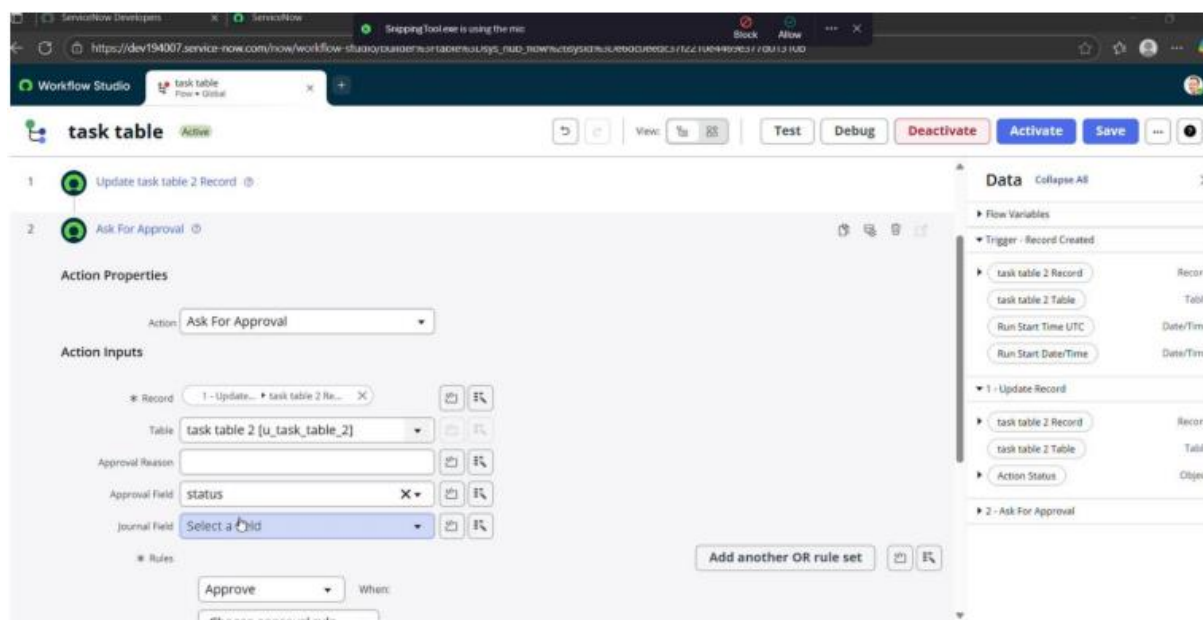
3. Click on Flow Designer under Process Automation.

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

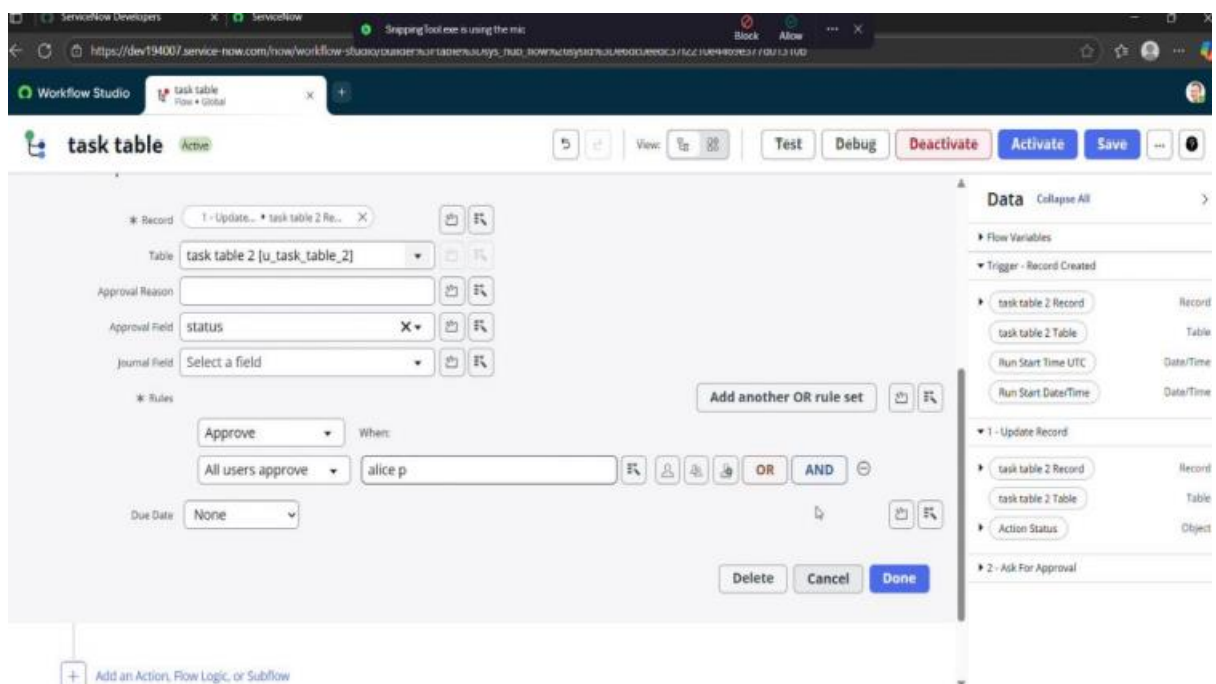
Field: comments Operator: is Value: feedback

Field: assigned to Operator: is Value: bob

5. After that click on Done.

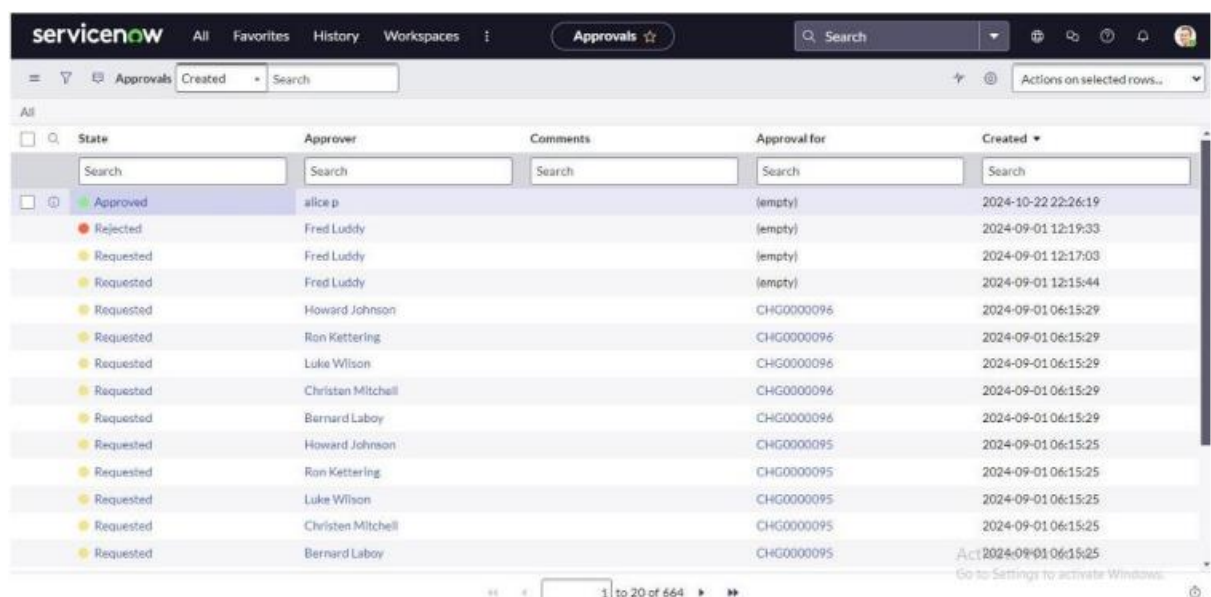
Next step:

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. 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 displays the ServiceNow 'Approvals' page. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and an 'Approvals' button. A search bar is present on the right. Below the navigation bar, there's a filter section with 'All' selected and a search input. The main table has columns: State, Approver, Comments, Approval for, and Created. The first row is highlighted in blue, showing 'Approved' status for 'alice p' with a creation time of '2024-10-22 22:26:19'. Subsequent rows show 'Rejected' and 'Requested' statuses for various approvers like 'Fred Luddy', 'Howard Johnson', 'Ron Ketterling', 'Luke Wilson', 'Christen Mitchell', and 'Bernard Laboy'. The bottom of the page shows a pagination bar indicating '1 to 20 of 664' items.

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 Ketterling		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 Ketterling		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.