

OPTIMIZING USER, GROUP, AND ROLE MANAGEMENT THROUGH ACCESS CONTROL AND WORKFLOWS

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Team Size : 4

Team Leader : HARISH C

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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 creation interface. The browser tabs include 'naan mudhalvan login - Search', 'Student', 'developer.servicenow.com - Search', 'ServiceNow Developers', and 'Alice p | User | ServiceNow'. The URL is 'https://dev190286.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3D36da5585c3332210f3b8533ed40131de%26sysparm_record_target%3Dsys_user%26sysp...'. The page header shows 'servicenow' and navigation links: 'All', 'Favorites', 'History', 'Workspaces', 'Admin'. The user profile 'User - Alice p' is selected. The form contains the following fields and options:

- 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: ☐

Buttons at the top right: Update, Set Password, Delete. Buttons at the bottom left: Update, Set Password, Delete. Related Links: [View linked accounts](#), [View Subscriptions](#), [Reset a password](#). Tabs at the bottom: Entitled Custom Tables, Roles, Groups, Delegates, Subscriptions, User Client Certificates. A search bar is at the bottom right.

Create one more user:

7. Create another user with the following details

8. Click on submit

servicenow All Favorites History Workspaces Admin User - Bob p Search

User ID Email

First name Language -- None --

Last name Calendar integration Outlook

Title Time zone System (America/Los_Angeles)

Department Date format System (yyyy-MM-dd)

Password needs reset ☐ Business phone

Locked out ☐ Mobile phone

Active ☒ Photo [Click to add...](#)

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.

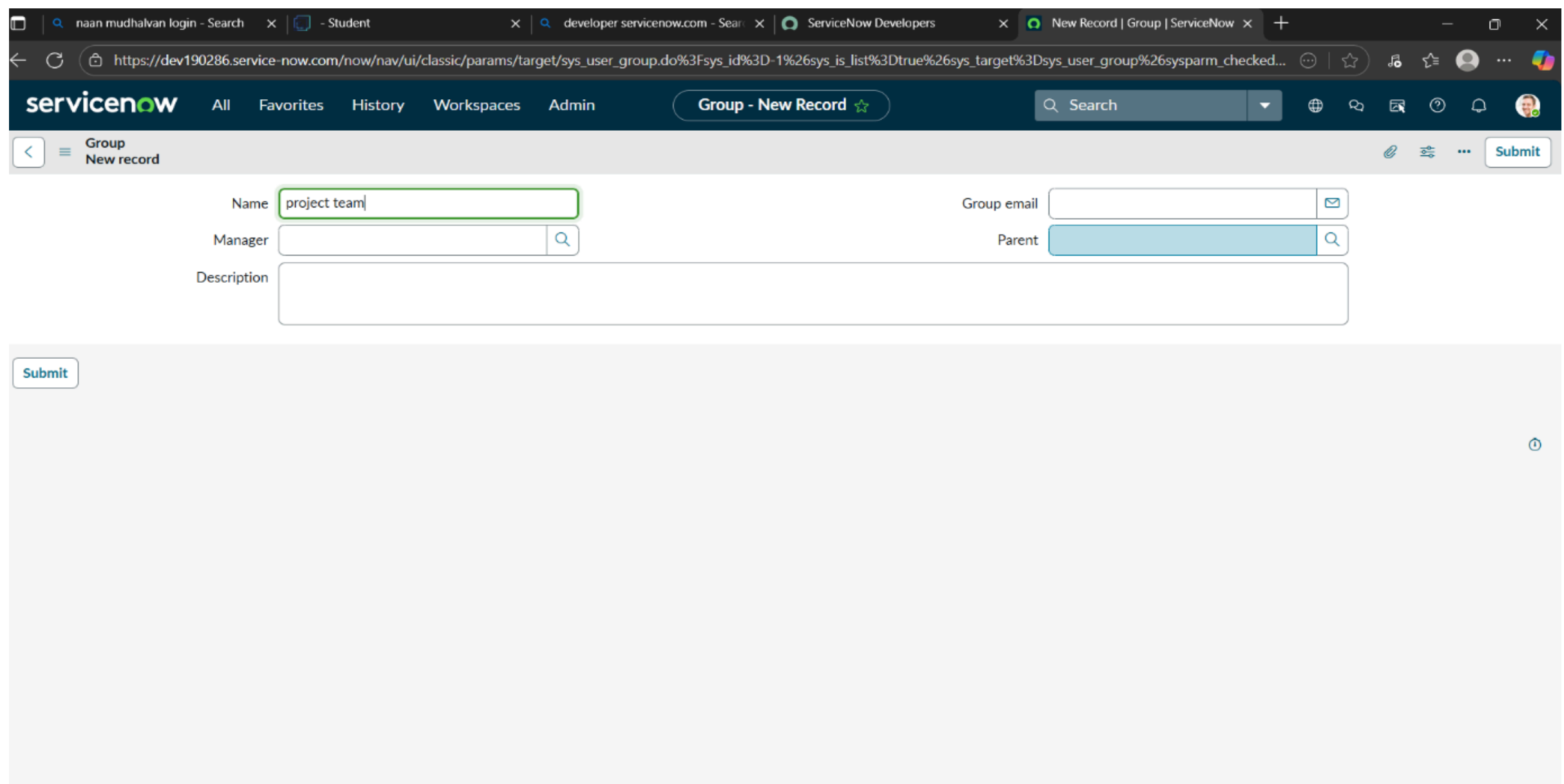
2. Click on All >> search for groups

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. The fields are: Name (project team), Group email (empty), Manager (empty), Parent (empty), and Description (empty). The form is part of a larger page with a header and a sidebar.

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.

ServiceNow Role - project member

Name: project member

Application: Global

Elevated privilege: ☐

Description:

Update Delete

Contains Roles Applications with Role Modules with Role Custom Tables

for text Search

Role = project member

Contains

No records to display

Create one more role:

7. Create another role with the following details

8. Click on submit

ServiceNow Role - New Record

Name: team member

Application: Global

Elevated privilege: ☐

Description:

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

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 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
+	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

Q Search

Submit

Cancel

Table

New record

u_task_table_2

Create module

Extends table

Create mobile module

Add module to menu

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	40	false
Updates	Integer	(empty)	40	40	false
Updated	Date/Time	(empty)	40	40	false
Sys ID	(empty)	(empty)	32	40	false
	(empty)	(empty)	40	40	false
	(empty)	(empty)	40	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

All

Favorites

History

Workspaces

Admin

Table - New Record

Q Search

Submit

Cancel

Table

New record

Table Columns

Column label

Search

Dictionary Entries

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

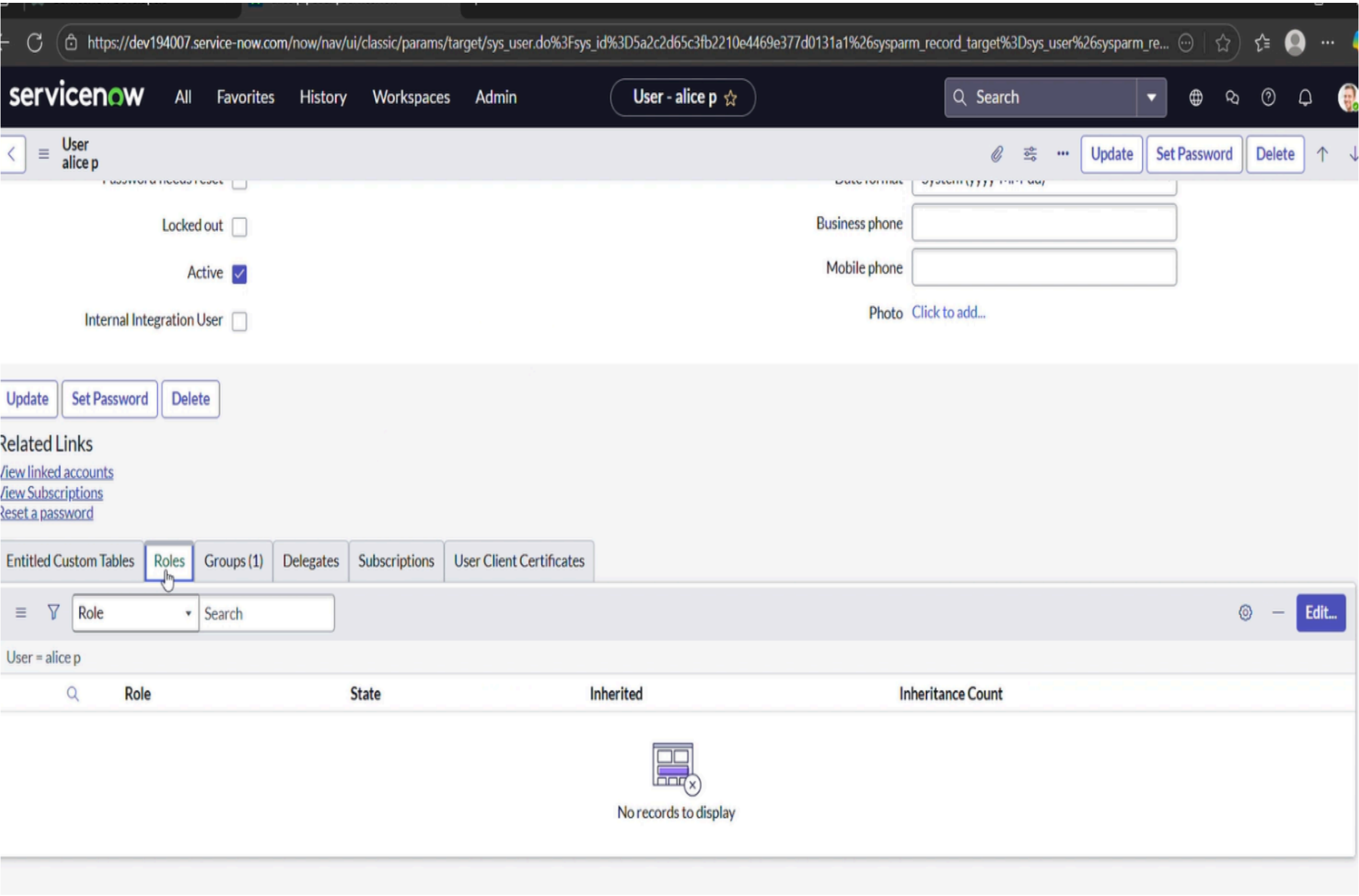
Cancel

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.

servicenow

AllFavoritesHistoryWorkspacesAdmin

User - alice p

Q Search

Useralice p

UpdateSet PasswordDelete

Password needs reset

Locked out

Active

Internal Integration User

Date formatSystem (yyyy-MM-dd)

Business phone

Mobile phone

PhotoClick to add...

UpdateSet PasswordDelete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

[Reset a password](#)

Entitled Custom TablesRoles (2)Groups (1)DelegatesSubscriptionsUser Client Certificates

RoleSearch

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 profile page for a user named 'bob p'. The page is titled 'User - bob p' and includes a search bar and navigation tabs. The user's details are as follows:

- User ID: bob
- First name: bob
- Last name: p
- Title: (empty)
- Department: (empty)
- Password needs reset: ☐
- Locked out: ☐
- Active: ☒
- Internal Integration User: ☐
- 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: (empty)
- Mobile phone: (empty)
- Photo: Click to add...

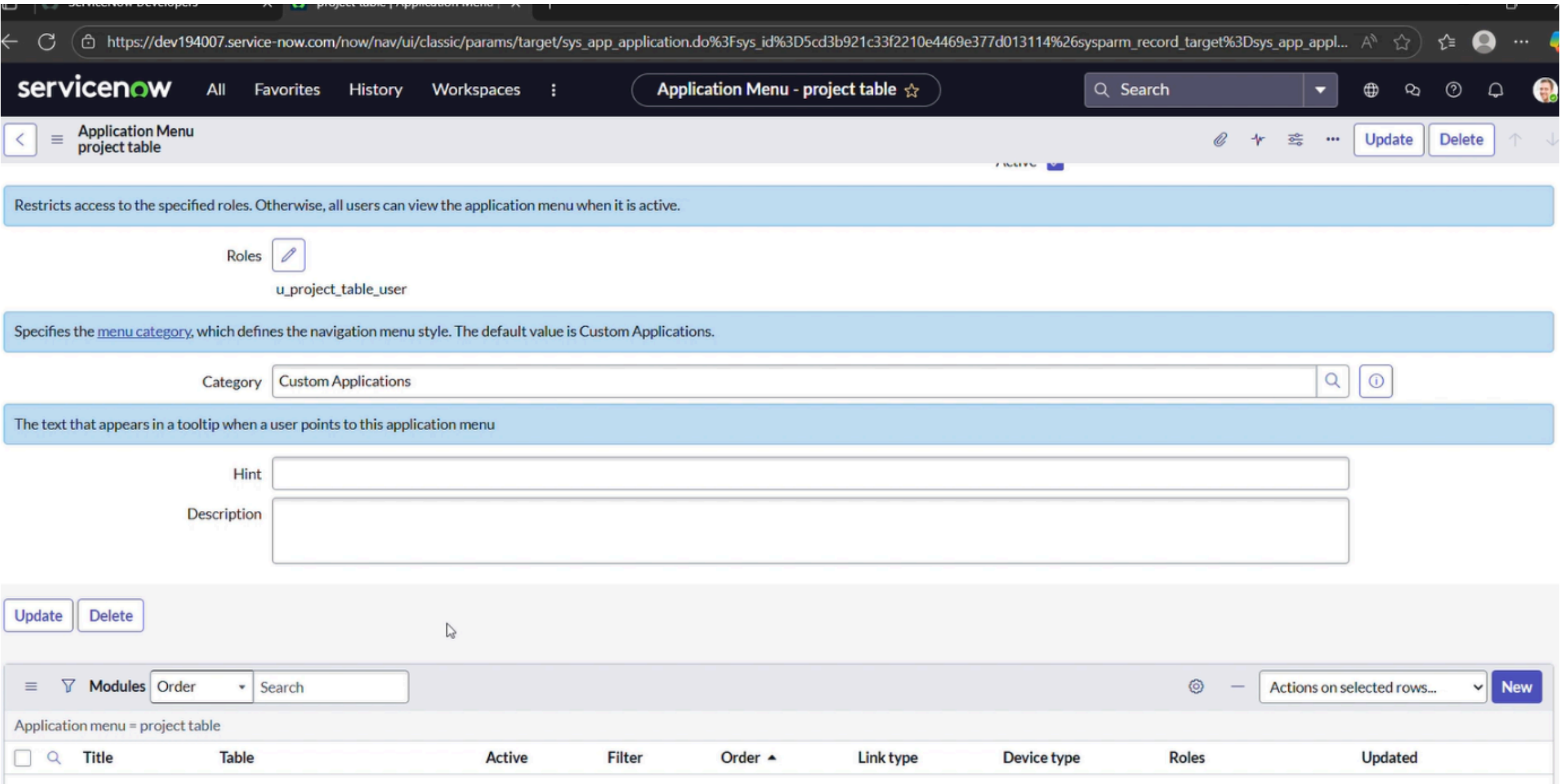
Below the user details, there are buttons for 'Update', 'Set Password', and 'Delete'. There are also links for 'Related Links' and a tabbed interface for 'Entitled Custom Tables', 'Roles', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Groups (1)' tab is currently selected.

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



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

Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL.

* Type: record ⓘ

Operation: write ⓘ

Decision Type: Allow If

Application: Global ⓘ

Active: ☒

Advanced: ☐

Admin overrides: ☒

Protection policy: -- None --

* Name: * -- None --

Description:

Applies To:

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

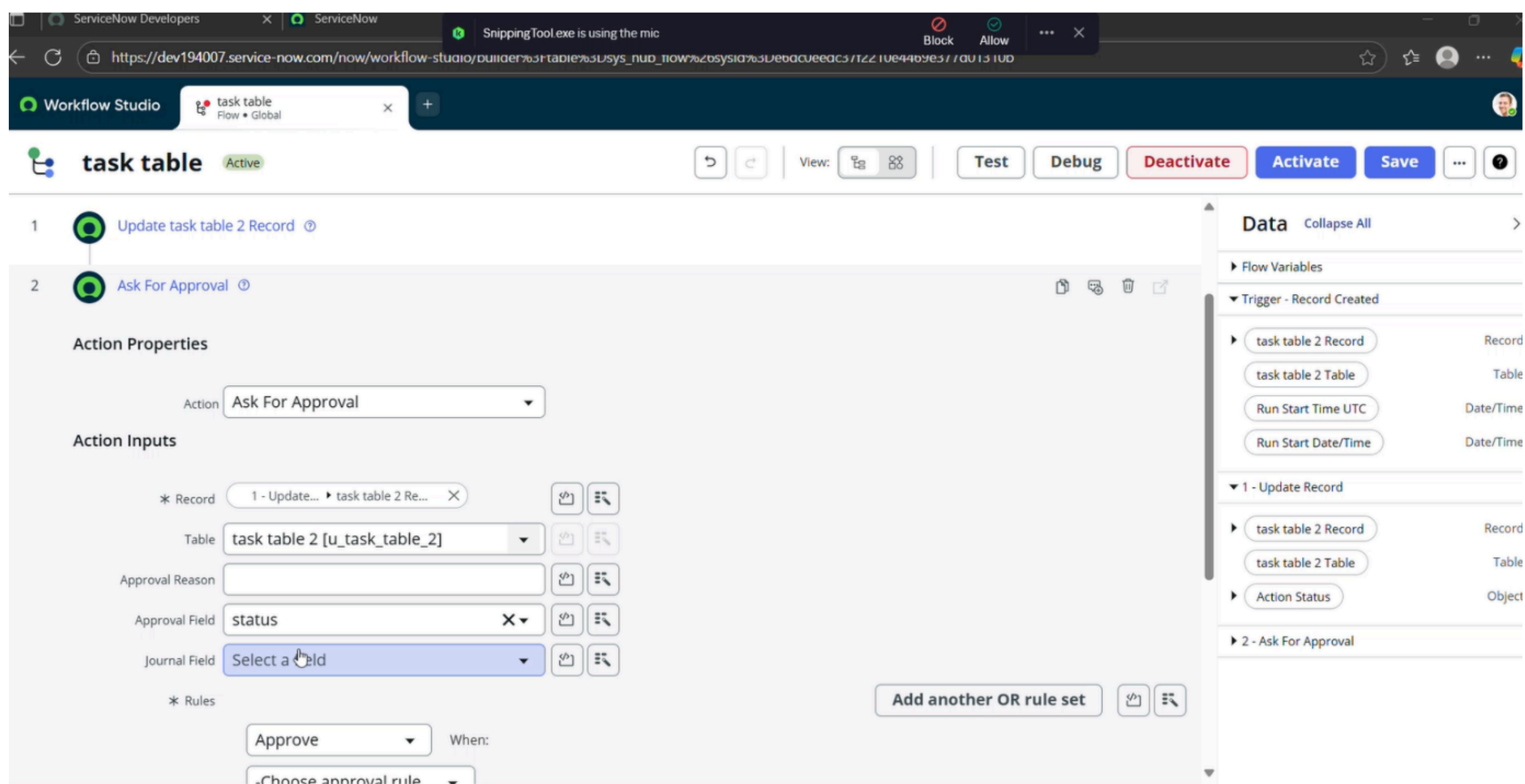
15. Go to all and select task table2 in the application menu bar

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.

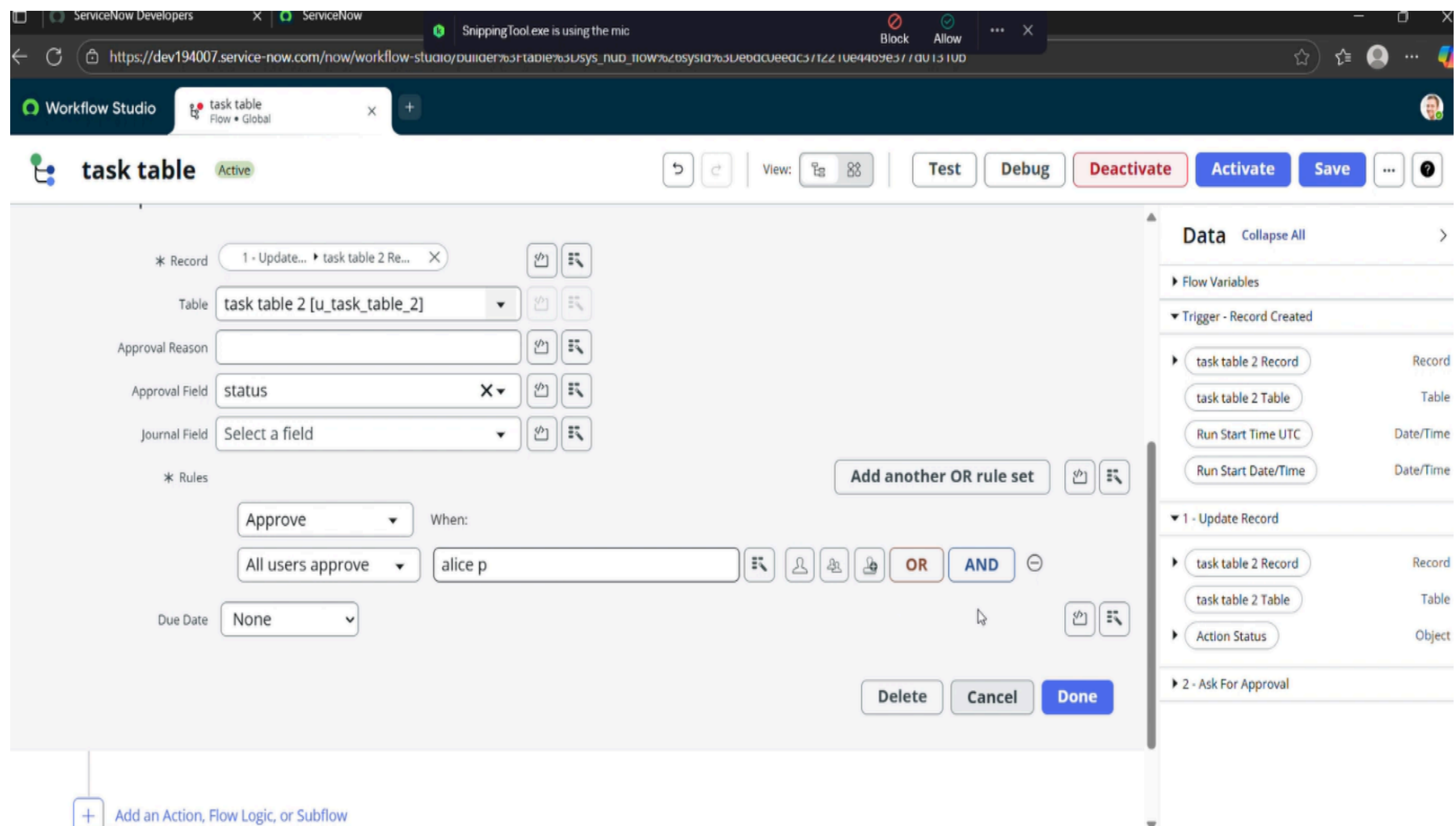
2. Select action in that, search for “ update records” .

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

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.