

# **Optimizing Users, Groups, Role Management with Access Control and Work Flow**

**Term Id:** NM2025TMID17628

**Term Members:** 5

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**Problem Statement:**

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there is a need to efficiently manage project tasks and ensure accountability throughout the project lifecycle. The current system lacks clear role definitions, access controls, and a structured

workflow, leading to confusion regarding task assignments and progress tracking.

## **Objective:**

### **\*Step 1: Define Roles and Responsibilities\***

Objective: Clearly define the roles of Project Manager (Alice) and Team Member (Bob) with specific responsibilities and access levels.

Outcome: Well-defined roles and responsibilities to avoid confusion and overlapping work.

### **\*Step 2: Implement Access Control\***

Objective: Set up access controls to ensure that each role has the necessary permissions to perform their tasks without compromising sensitive information.

Outcome: Access controls in place to prevent unauthorized access and ensure data security.

### \*Step 3: Design a Structured Workflow\*

Objective: Create a structured workflow that outlines the project lifecycle, including task assignments, progress tracking, and completion.

Outcome: A clear and efficient workflow that ensures accountability and transparency throughout the project.

### \*Step 4: Assign Tasks and Track Progress\*

Objective: Use the workflow to assign tasks to team members and track progress in real-time.

Outcome: Effective task management and progress tracking to ensure project timelines are met.

## \*Step 5: Monitor and Evaluate\*

**Objective:** Continuously monitor the workflow and access controls to identify areas for improvement and ensure accountability.

**Outcome:** Ongoing evaluation and improvement of the workflow and access controls to optimize project management.

**Skills:** Users,Groups,Roles,Table,Access Control List, Flow designer.

## **TASK INITIATION**

### **Milestone 1: Users**

#### **Activity 1: Create User**

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 URL in the address bar is dev223958.service-now.com/nav/ui/classic/params/target/sys\_user.do?sys\_id=3D30a8889d83376210dc52b1d6feaad306%26sysparm\_record\_target%3Dsys\_user%26... . The page title is "User - alice p". The form fields include:

User ID: Alice	Email: alice@gmail.com
First name: alice	Language: -- None --
Last name: p	Calendar integration: Outlook
Title: <input type="text"/>	Time zone: System (America/Los_Angeles)
Department: <input type="text"/>	Date format: System (yyyy-MM-dd)
Password needs reset: <input type="checkbox"/>	Business phone: <input type="text"/>
Locked out: <input type="checkbox"/>	Mobile phone: <input type="text"/>
Active: <input checked="" type="checkbox"/>	Photo: Click to add...
Web service access only: <input type="checkbox"/>	
Internal Integration User: <input type="checkbox"/>	

At the bottom, there are "Update", "Set Password", and "Delete" buttons. Below the buttons is a "Related Links" section with "View linked accounts" and "View Subscriptions". The Windows taskbar at the bottom shows various pinned icons.

**Create one more user:**

**7. Create another user with the following details**

**8. Click on submit**

The screenshot shows the ServiceNow User edit screen for a user named 'bob p'. The top navigation bar includes tabs for 'ServiceNow Developers', 'bob p | User | ServiceNow', and 'New Tab'. The main title is 'User - bob p'. The left sidebar shows the current view is 'User bob p'. The right side contains various configuration fields:

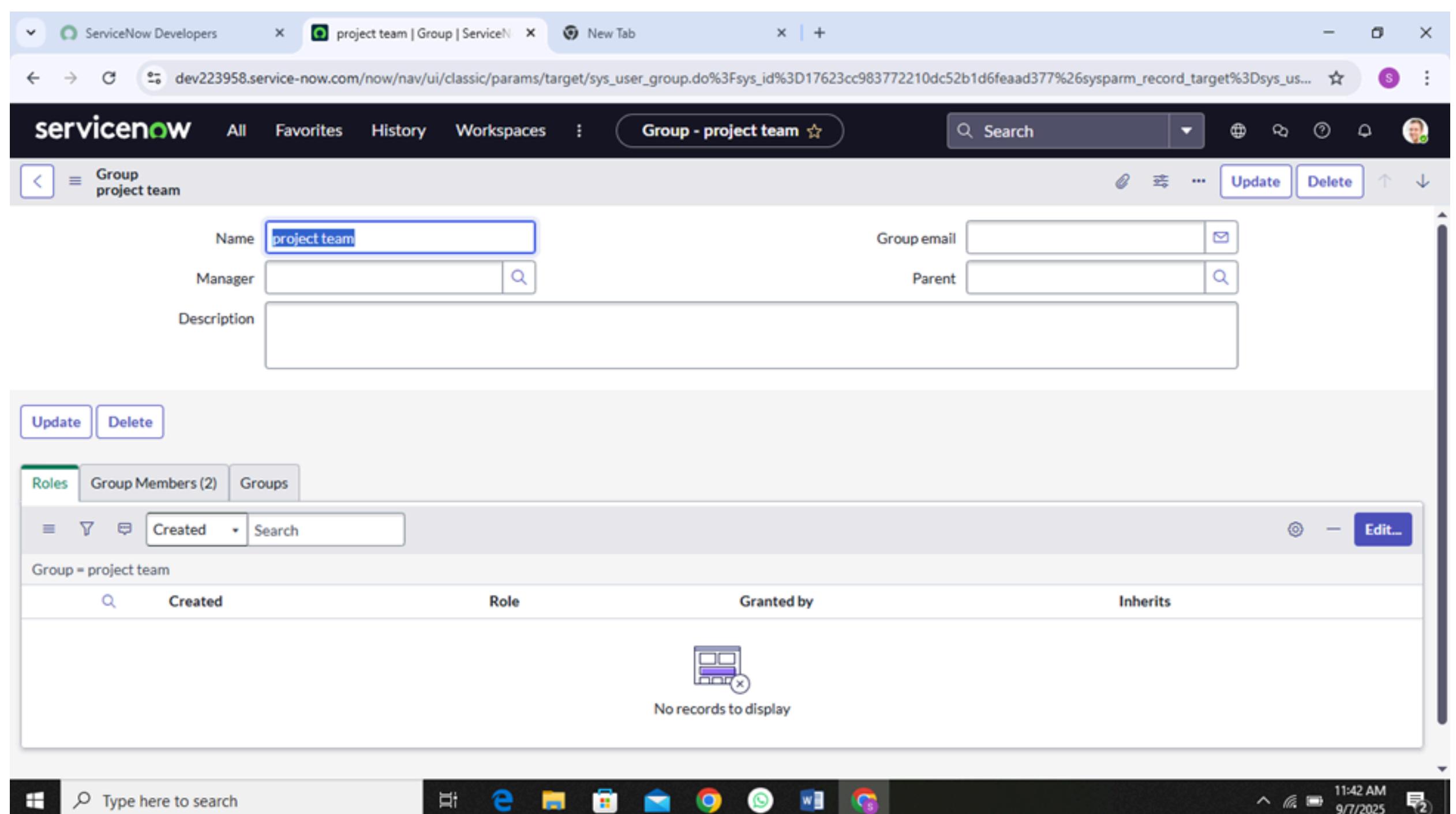
User ID	Bob
First name	bob
Last name	p
Title	(empty)
Department	(empty)
Password needs reset	<input type="checkbox"/>
Locked out	<input type="checkbox"/>
Active	<input checked="" type="checkbox"/>
Email	bob@gmail.com
Language	-- None --
Calendar integration	Outlook
Time zone	System (America/Los_Angeles)
Date format	System (yyyy-MM-dd)
Business phone	(empty)
Mobile phone	(empty)

Below the fields, there are buttons for 'Update', 'Set Password', and 'Delete'. Under 'Related Links', there are links to 'View linked accounts', 'View Subscriptions', and 'Recent activity'. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Edge, File, Mail, Google Chrome, WhatsApp, Word, and OneDrive, along with system status indicators.

## 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



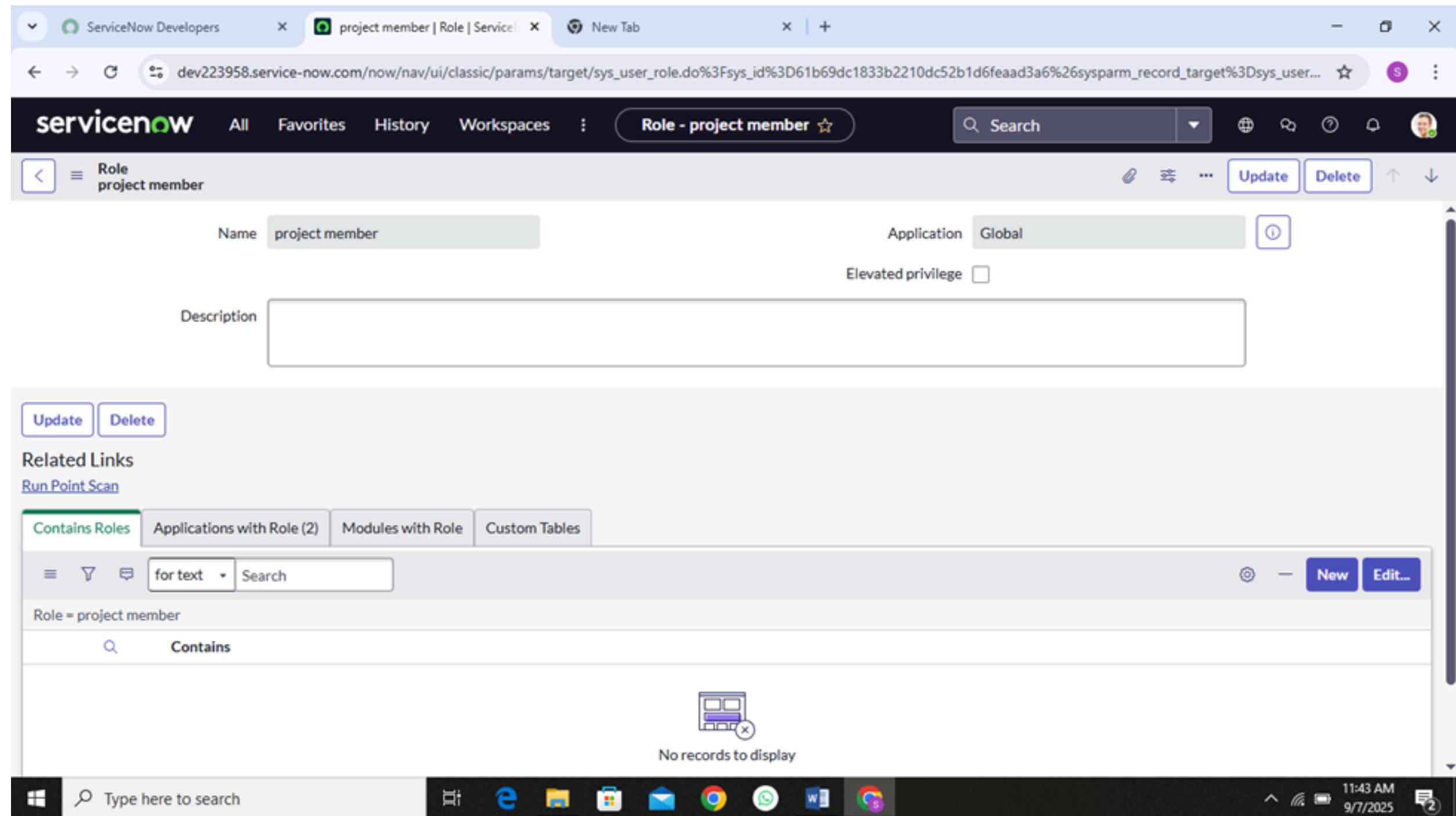
## Milestone 3: Roles

### 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

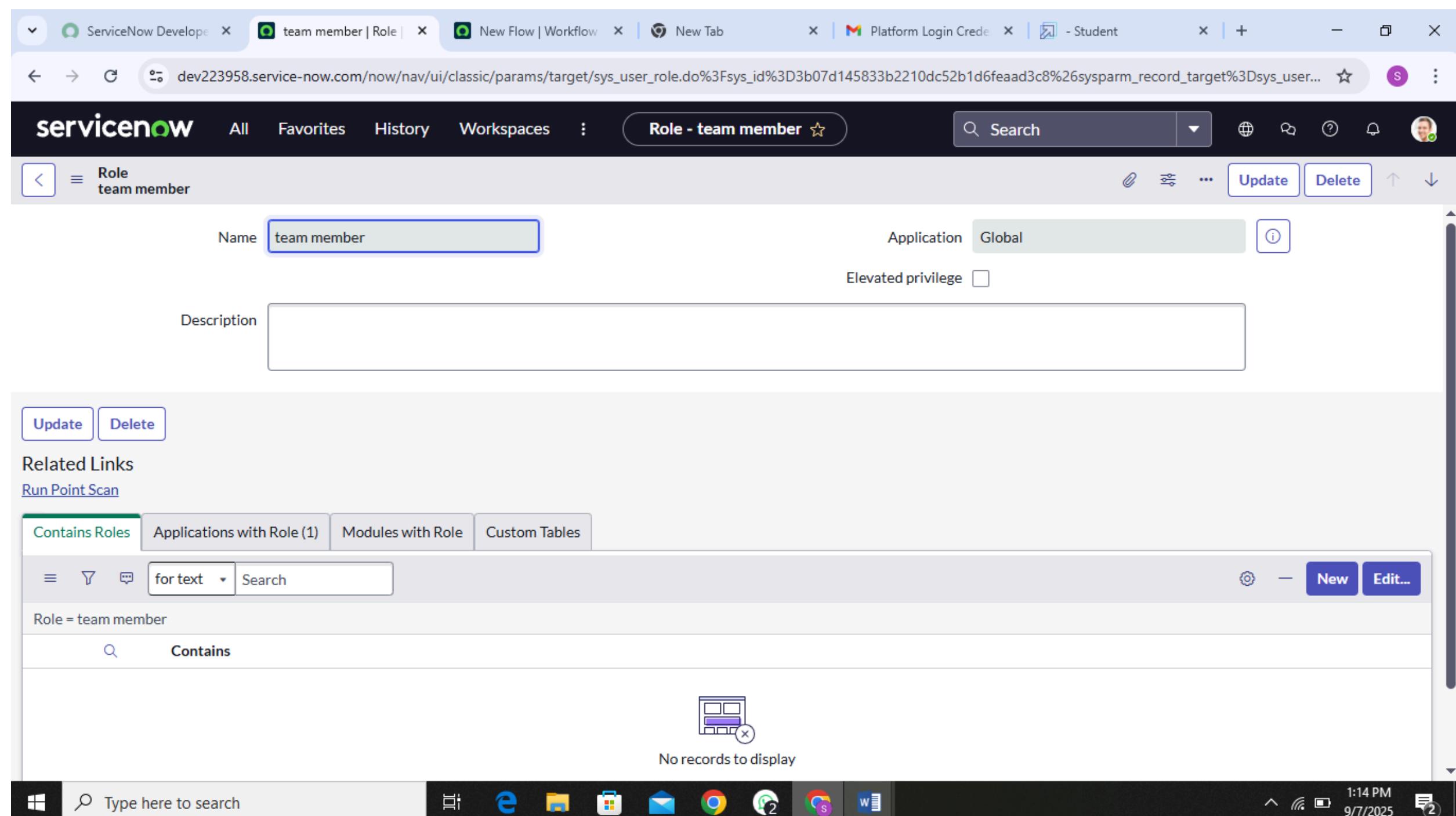


**Create one more role:**

7. Create another role with the following details:

Team member

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
8. Click on submit

The screenshot shows the ServiceNow 'Table - New Record' interface. At the top, there are fields for 'Name' (set to 'u\_project\_table') and 'Extends table'. To the right, there are checkboxes for 'Create module' (checked) and 'Create mobile module' (checked). Below these are dropdown menus for 'Add module to menu' (set to '-- Create new --') and 'New menu name' (set to 'project table').

Below this, the 'Columns' tab is selected in a navigation bar. A table titled 'Dictionary Entries' lists six columns with the following details:

	Column label	Type	Reference	Max length	Default value	Display
X	project id	Integer			false	
X	project name	String			false	
X	project manger	String			false	
X	start date	Date			false	
X	end date	Date			false	
X	status	Choice			false	

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 ServiceNow 'Table - New Record' interface. At the top, there are fields for 'Label' (task table 2) and 'Name' (u\_task\_table\_2). On the right, under 'Application' settings, 'Create module' is checked. Below that, 'Create mobile module' is also checked. Under 'Add module to menu', it says '-- Create new --' and 'New menu name' is set to 'task table 2'. The bottom part of the screen shows a table of columns with labels task id, task name, assigned to, and due date, all set to type String.

## 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

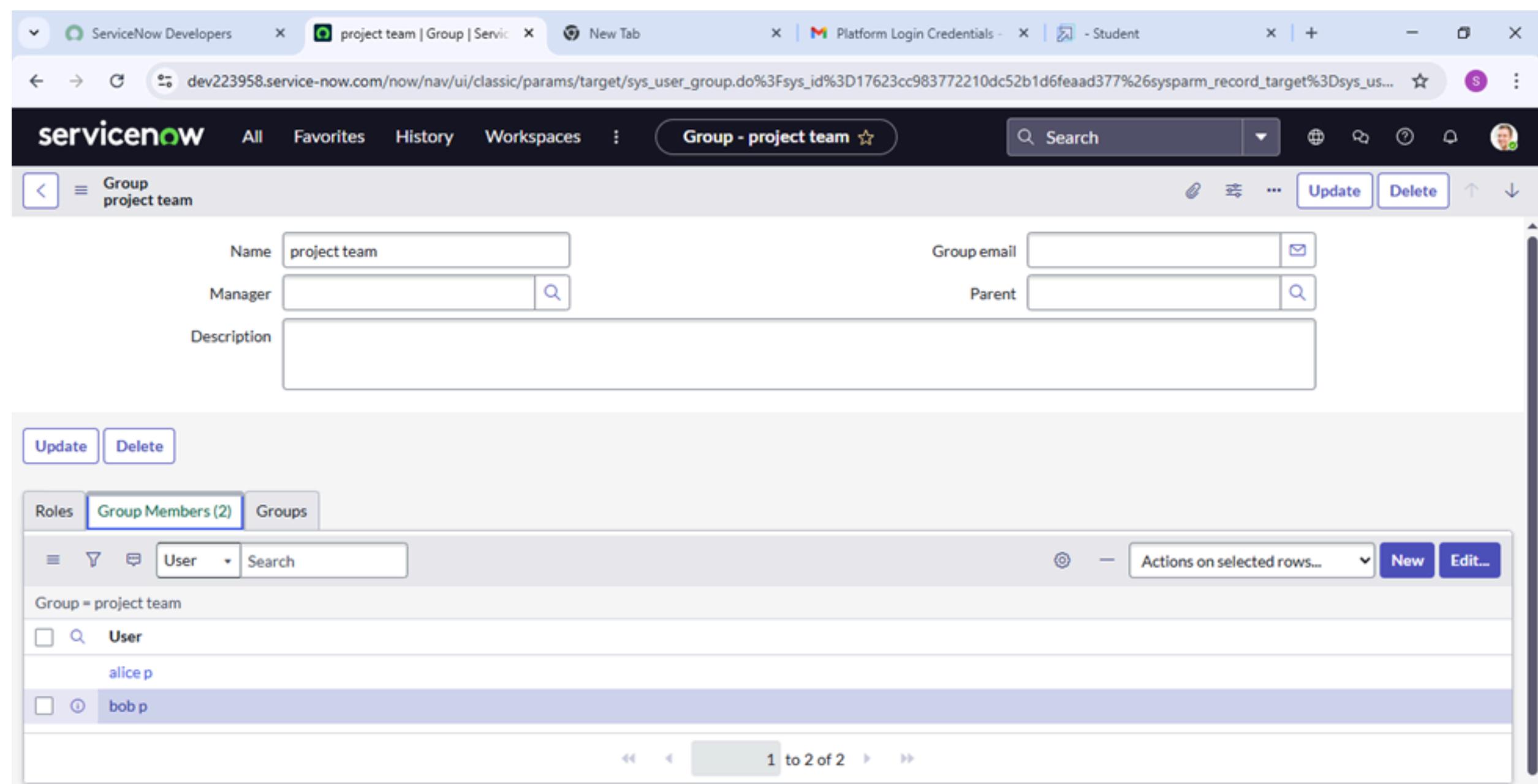
3. Select tables under system definition

4. Select the project team group

5. Under group members

6. Click on edit

7. Select alice p and bob p and save



The screenshot shows the ServiceNow web interface with the URL [https://dev223958.service-now.com/nav-ui/classic/params/target/sys\\_user\\_group.do%3Fsys\\_id%3D17623cc983772210dc52b1d6feaad377%26sysparm\\_record\\_target%3Dsys\\_us...](https://dev223958.service-now.com/nav-ui/classic/params/target/sys_user_group.do%3Fsys_id%3D17623cc983772210dc52b1d6feaad377%26sysparm_record_target%3Dsys_us...). The page title is "Group - project team". The main content area displays a group record with fields: Name (project team), Manager (empty), Group email (empty), Parent (empty), and Description (empty). Below the form, there are "Update" and "Delete" buttons. A navigation bar at the bottom includes tabs for Roles, Group Members (2), and Groups. The "Group Members" tab is active, showing a list of users: "User" (alice p) and "User" (bob p). The user "bob p" is currently selected. At the bottom of the screen, the Windows taskbar is visible with various icons and the date/time: 12:05 PM 9/7/2025.

## Milestone 6: Assign roles to users

### Activity 1: Assign roles to alice user

1. Open service now. 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 interface for a user named 'alice p'. The 'Roles' tab is selected, displaying three active roles assigned to the user:

Role	State	Inherited	Inheritance Count
u_project_table_user	Active	false	
project member	Active	false	
u_task_table_2_user	Active	false	

Below the table, there is a search bar and a navigation bar with icons for various applications like File Explorer, Edge, Task View, Mail, Google Chrome, WhatsApp, Word, and Excel.

## Activity 2: Assign roles to bob user

1. Open Service Now. 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.

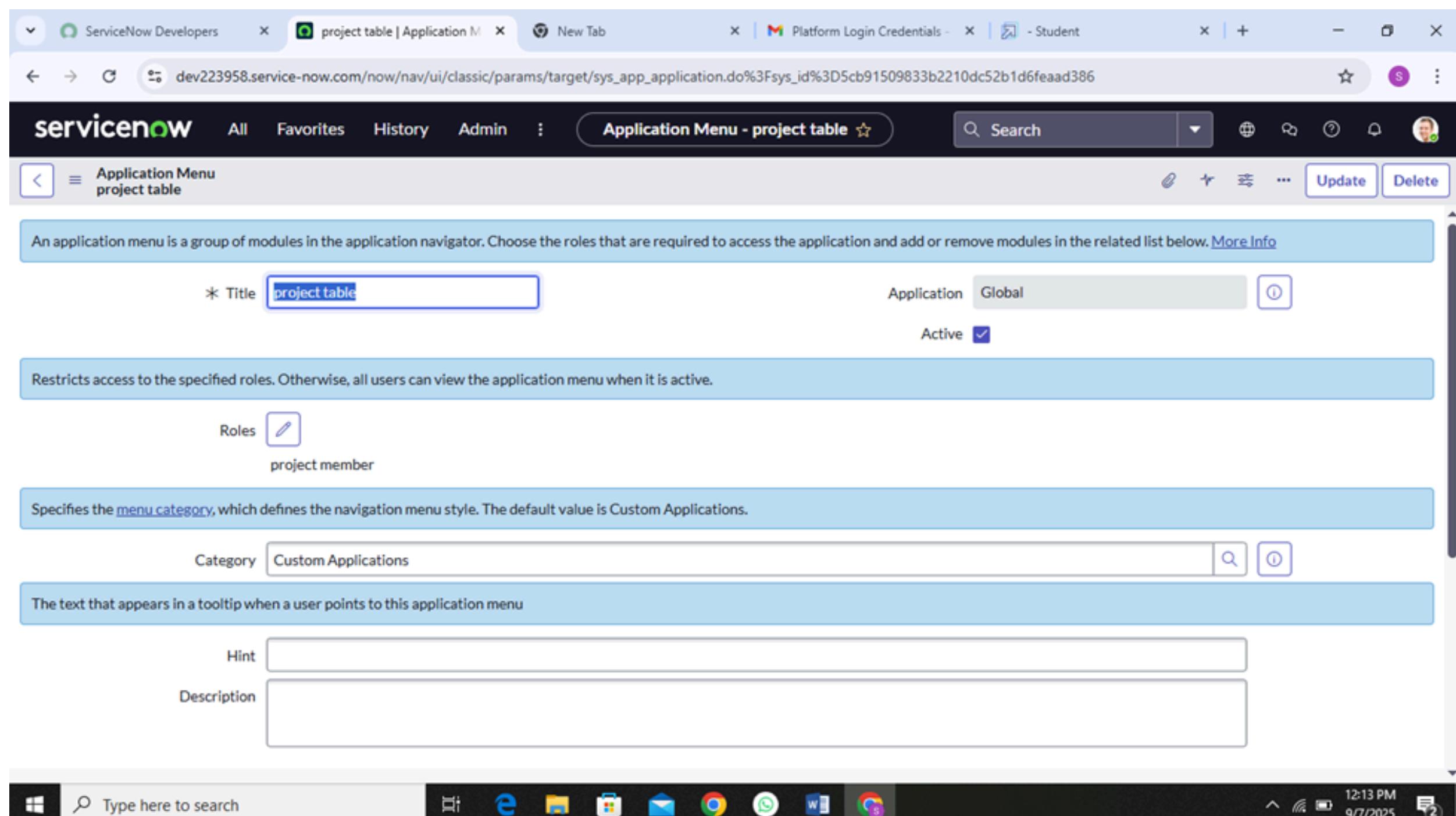
The screenshot shows the ServiceNow User edit screen for a user named 'bob p'. The top navigation bar includes tabs for 'All', 'Favorites', 'History', and 'Workspaces'. The main title is 'User - bob p'. Below the title, there are several checkboxes: 'Active' (checked), 'Web service access only' (unchecked), and 'Internal Integration User' (unchecked). On the right side, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Photo' placeholder with the text 'Click to add...' is present. Under the 'Related Links' section, there are links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. The 'Roles (2)' tab is selected in the 'Entitled Custom Tables' section. The table displays two roles: 'team member' and 'u\_task\_table\_2\_user', both listed as 'Active' with 'Inherited' status set to 'false'. The bottom of the screen shows the Windows taskbar with various icons and the date/time '12:11 PM 9/7/2025'.

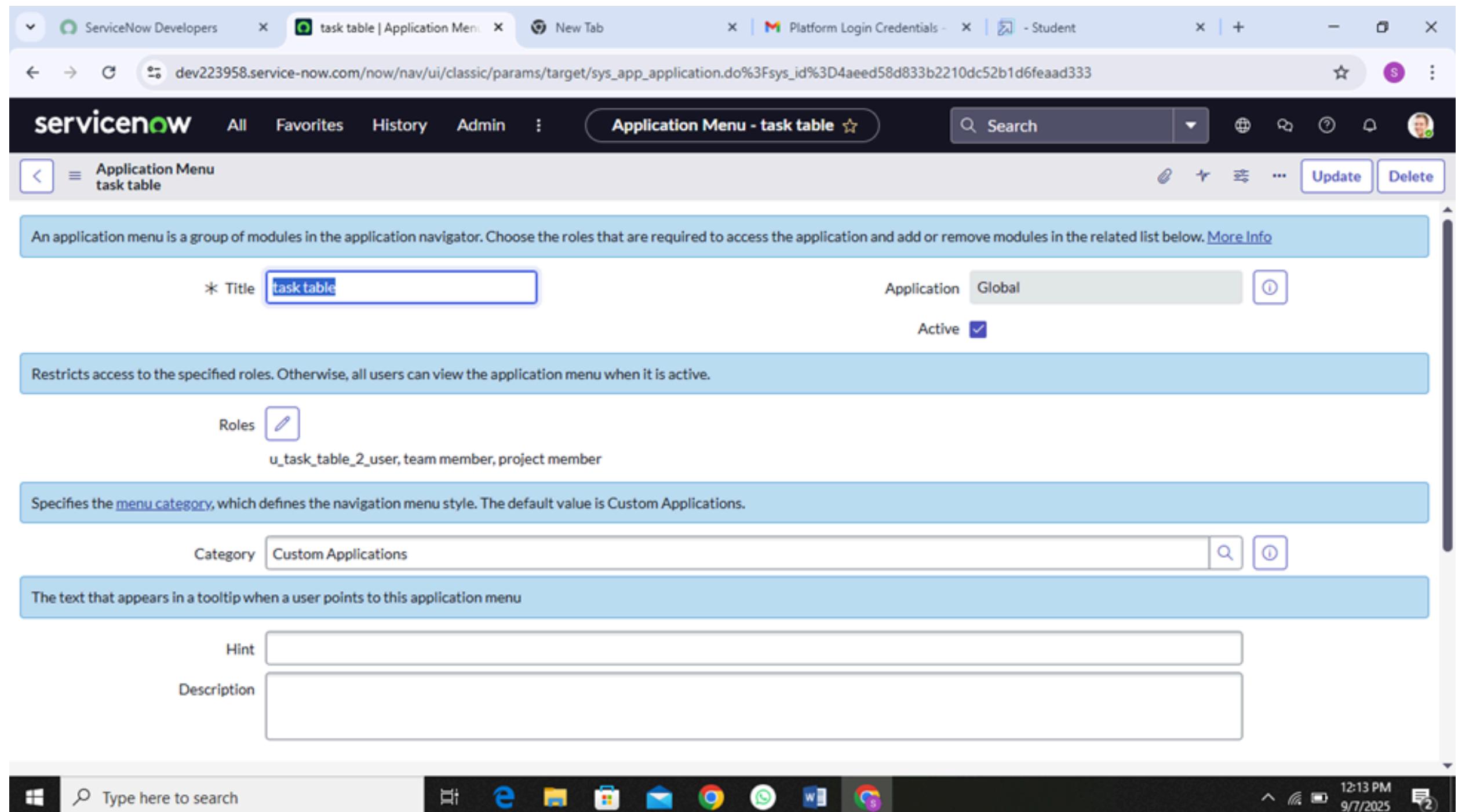
Role	State	Inherited	Inheritance Count
team member	Active	false	
u_task_table_2_user	Active	false	

## Milestone 7: Application access

### Activity 1: Assign table access to application

1. While creating a table it automatically create a 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



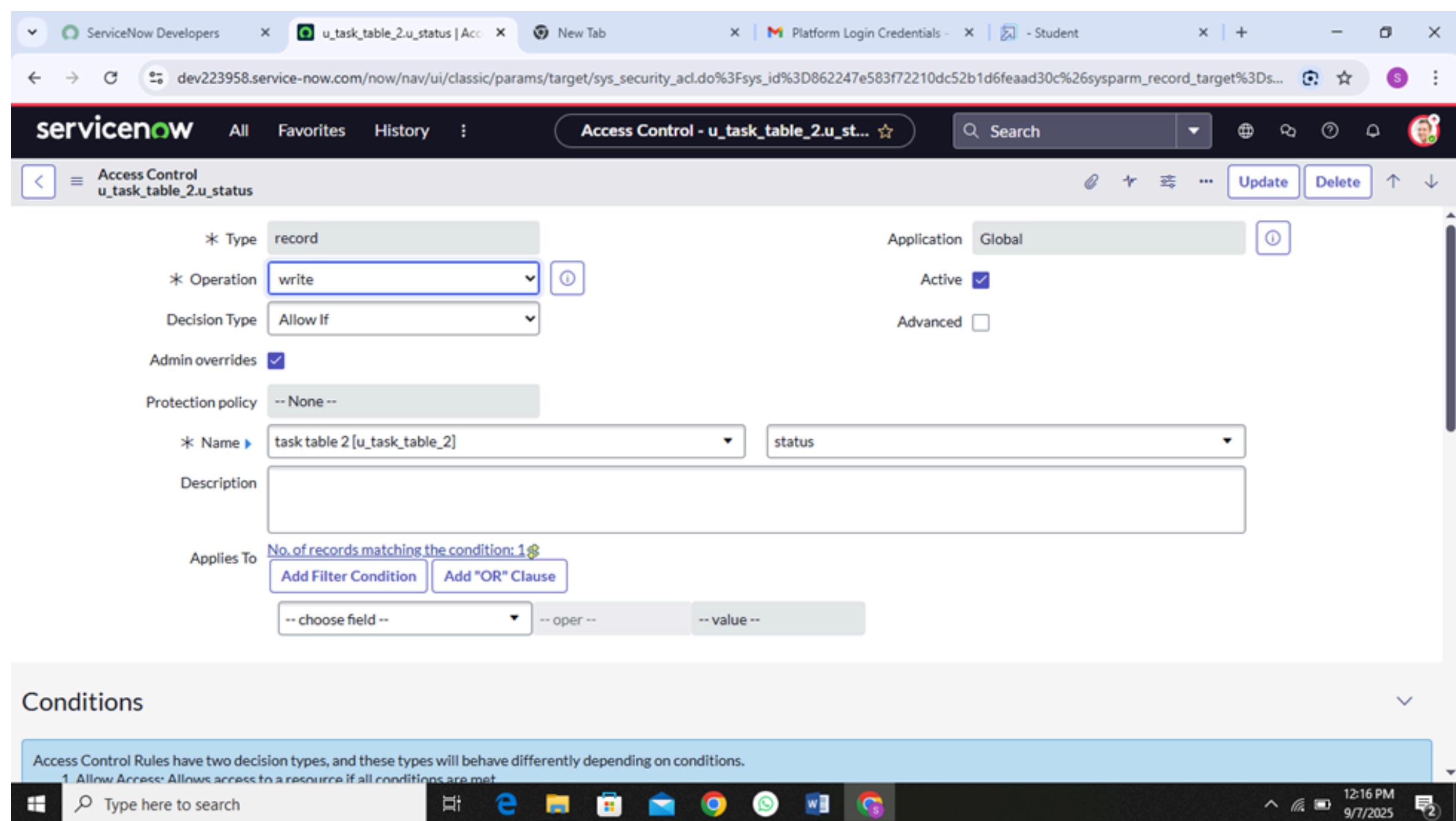


## Milestone 8: Access control list

### Activity 1: Create ACL

1. Open service now.
2. Click on All >>search for ACL
3. Select Access Control (ACL) under system security

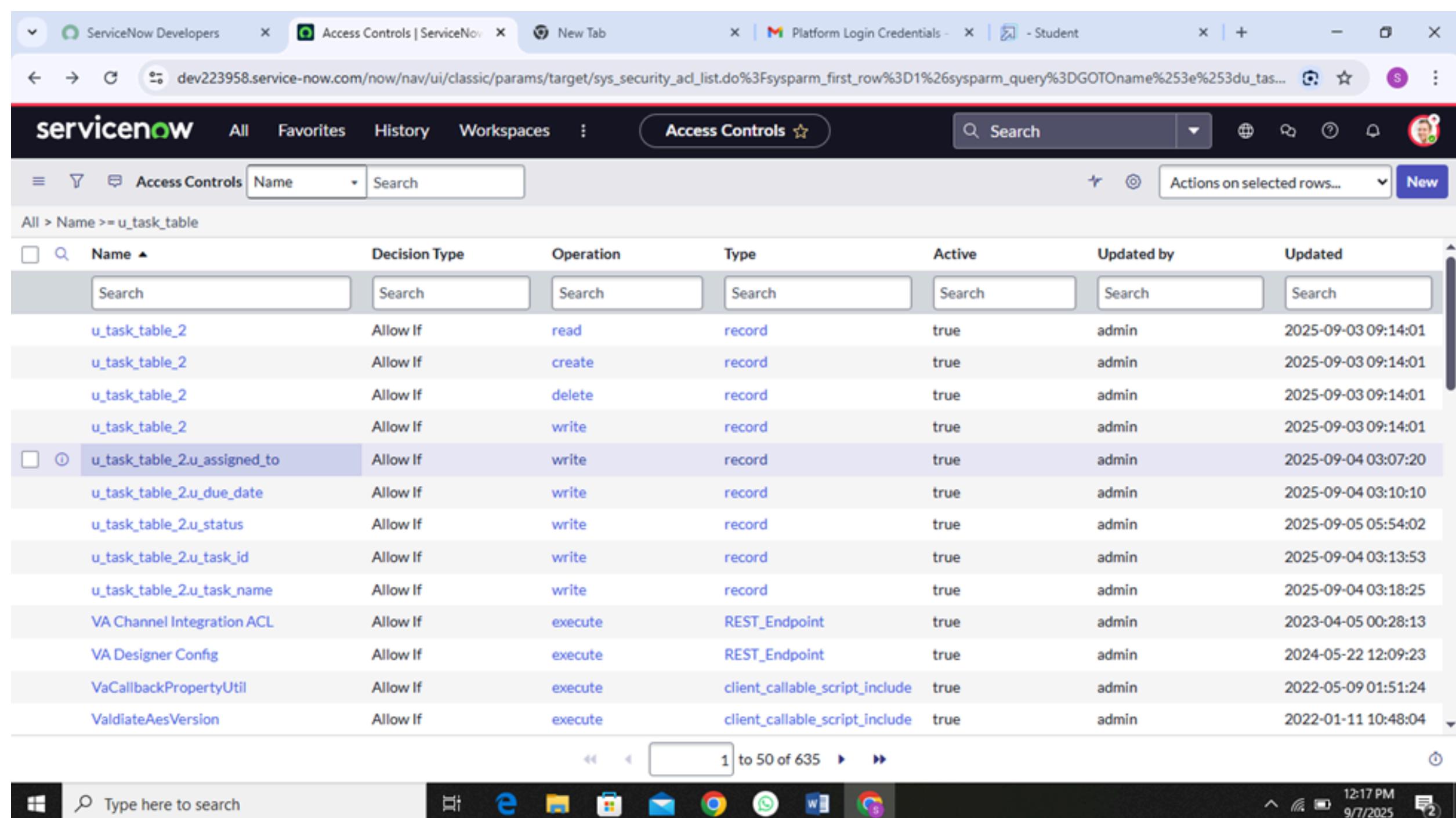
4. Click on elevate role
5. Click on new
6. Fill the following details to create a new ACL



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



The screenshot shows a ServiceNow web interface with a browser tab titled "Access Controls | ServiceNow". The main content is a grid titled "Access Controls" with columns: Name, Decision Type, Operation, Type, Active, Updated by, and Updated. The grid contains 15 rows of data, mostly for fields starting with "u\_task\_table\_2". The last four rows are system-defined ACLs for "VA Channel Integration ACL", "VA Designer Config", "VaCallbackPropertyUtil", and "ValidateAesVersion". The bottom status bar shows the date and time as 9/7/2025 12:17 PM.

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_task_table_2	Allow If	read	record	true	admin	2025-09-03 09:14:01
u_task_table_2	Allow If	create	record	true	admin	2025-09-03 09:14:01
u_task_table_2	Allow If	delete	record	true	admin	2025-09-03 09:14:01
u_task_table_2	Allow If	write	record	true	admin	2025-09-03 09:14:01
u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	2025-09-04 03:07:20
u_task_table_2.u_due_date	Allow If	write	record	true	admin	2025-09-04 03:10:10
u_task_table_2.u_status	Allow If	write	record	true	admin	2025-09-05 05:54:02
u_task_table_2.u_task_id	Allow If	write	record	true	admin	2025-09-04 03:13:53
u_task_table_2.u_task_name	Allow If	write	record	true	admin	2025-09-04 03:18:25
VA Channel Integration ACL	Allow If	execute	REST_Endpoint	true	admin	2023-04-05 00:28:13
VA Designer Config	Allow If	execute	REST_Endpoint	true	admin	2024-05-22 12:09:23
VaCallbackPropertyUtil	Allow If	execute	client_callable_script_include	true	admin	2022-05-09 01:51:24
ValidateAesVersion	Allow If	execute	client_callable_script_include	true	admin	2022-01-11 10:48:04

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 are have the edit access

The screenshot shows a ServiceNow web interface for creating a new record in the 'task table 2' table. The title bar reads 'task table 2 - Create Created'. The form contains the following fields:

- task id (text input field)
- task name (text input field)
- status (dropdown menu showing '-- None --')
- assigned to (text input field)
- comments (text input field)
- due date (text input field)

At the bottom left is a 'Submit' button, and at the bottom right is a small watermark that says 'Activate Windows Go to Settings to activate Windows.'

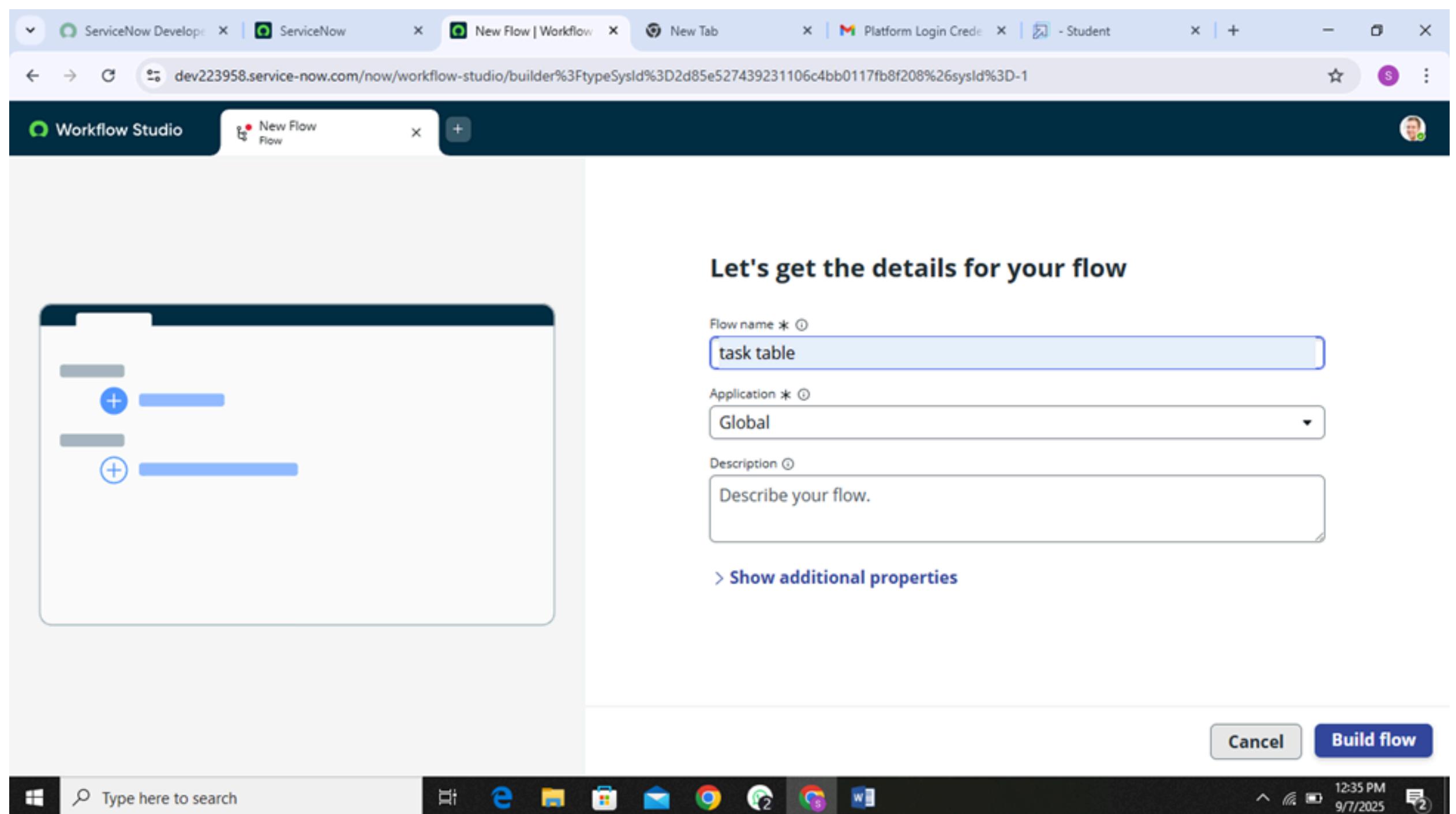
## Milestone 9: Flow

## **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.

The screenshot shows the ServiceNow homepage with a search bar at the top containing the query "flow". A sidebar on the left displays search results under "FAVORITES" and "ALL RESULTS", including items like "Docker Webhook Answer Subflow" and "Process Automation". The main content area features a section titled "Creator Studio" with the sub-headline "Create request-based apps quickly". It includes a description of a guided and curated environment for creating forms and assigning automations, stating "No-code required". A blue button labeled "Open Creator Studio" is prominently displayed. Below this, a section titled "GO FURTHER" has the heading "Power your workflow applications". The bottom of the screen shows a Windows taskbar with various pinned icons.

The screenshot shows the "Workflow Studio" interface. At the top, there are tabs for "Homepage", "Operations", and "Integrations", with "Homepage" currently selected. Below this, a navigation bar includes buttons for "Playbooks", "Flows", "Subflows", "Actions", and "Decision tables", with "Flows" being the active tab. A message "Flows 69" indicates the count of flows listed. The main area displays a table of flows, each with columns for "Name", "Application", "Status", and "Active". The first few rows include "Admin Deployment Approval Flow Error Notifier", "Admin Install App to Production Environment Flow Error Notifier", "Application Intake Request Flow", "Application Intake Request V2", "Benchmark Recommendation Evaluator", "Business process approval flow", and "Change - Cloud Infrastructure - Authorize". To the right of the table, a "New" dropdown menu is open, showing options like "Playbook", "Flow" (which is highlighted), "Subflow", "Action", and "Decision table". A sidebar on the right titled "Pick up where you left off" lists recent items such as "task table", "Flow", "Subflow", "Action", and "Decision table", along with their last update times and users. The bottom of the screen shows a Windows taskbar.

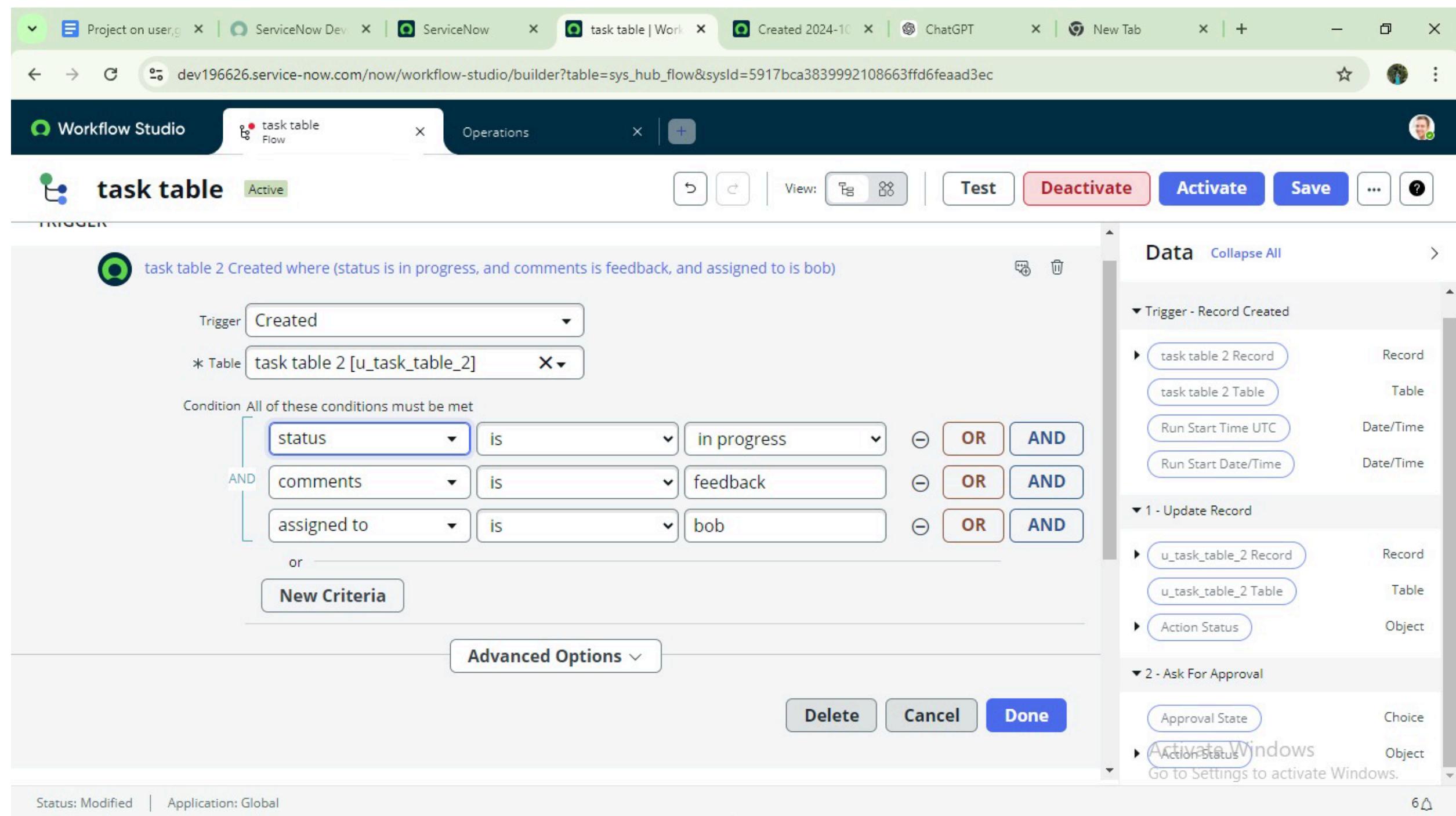


## Next step:

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

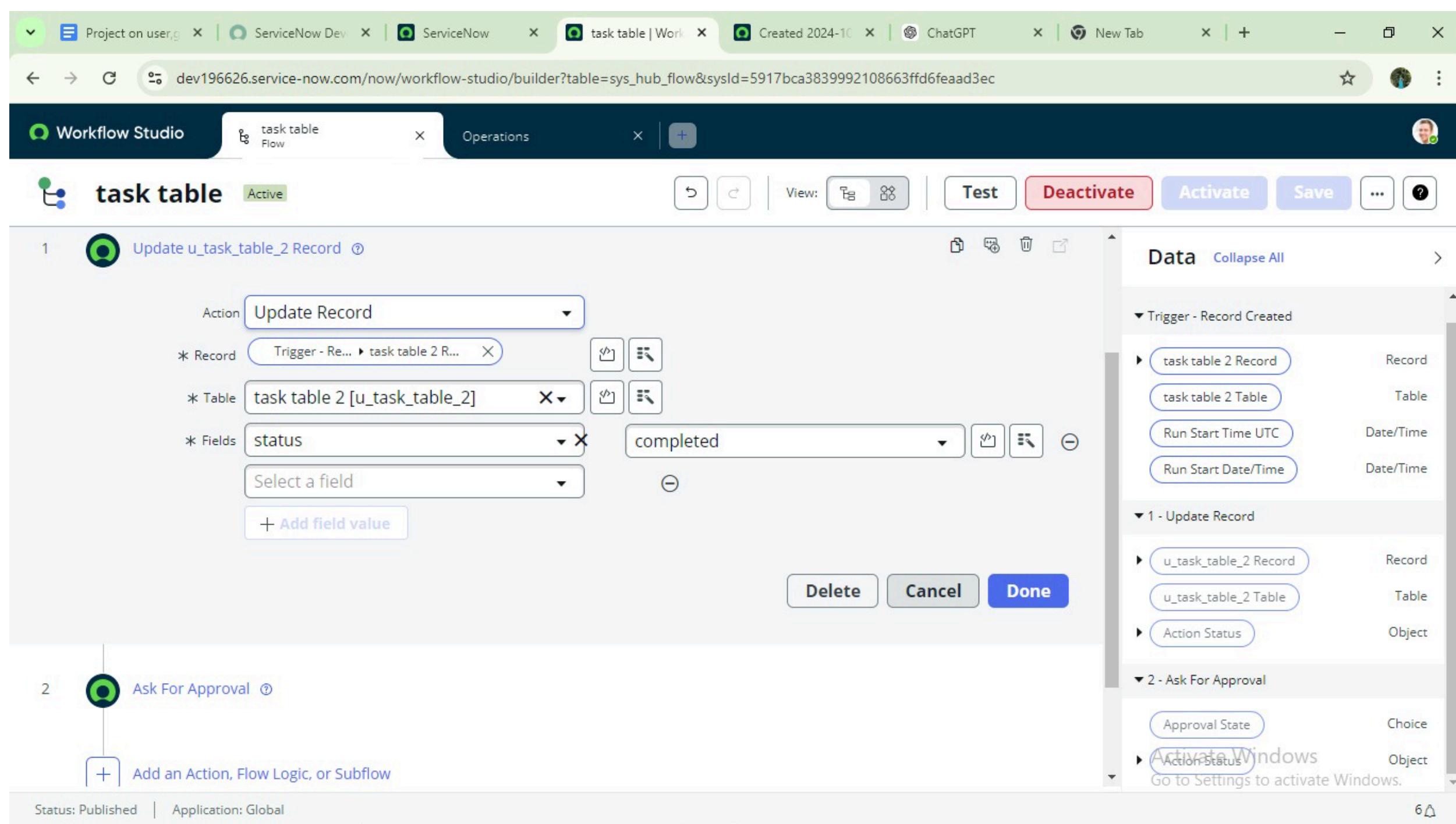
5. After that click on Done.



**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)

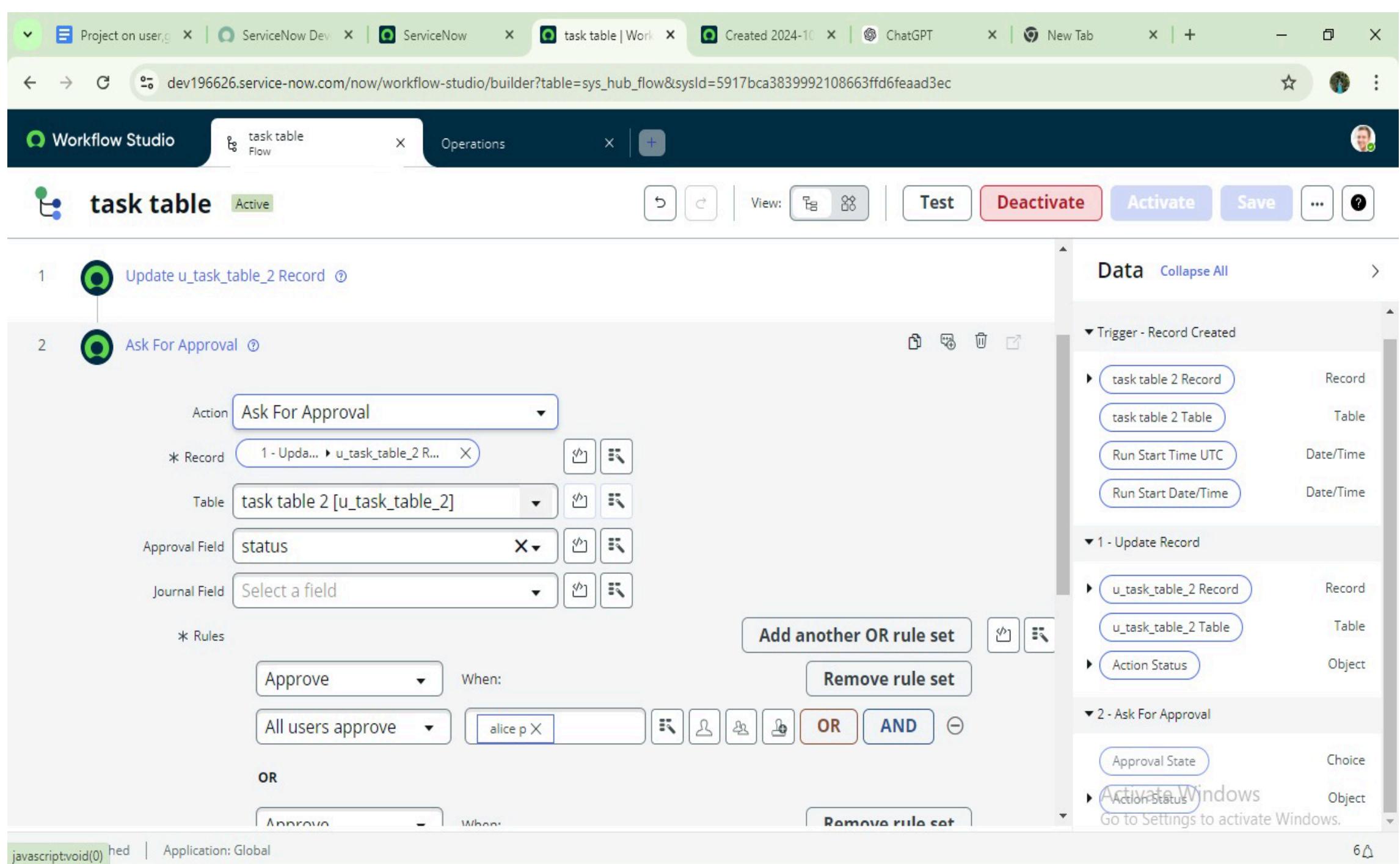
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.



## 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

A screenshot of a ServiceNow web browser interface. The title bar shows multiple tabs including "Project on user.g", "ServiceNow Dev", "ServiceNow", "task table | Work", "Created 2024-10...", "ChatGPT", and "New Tab". The main header says "servicenow" and "task table 2 - Created 2024-10-22 2...". A search bar and a user profile icon are on the right. The main content area displays a single record for "task table 2" created on 2024-10-22 at 22:25:18. The record has fields: "task id" (input field), "task name" (input field), "status" (dropdown menu showing "completed"), "assigned to" (input field with value "bob"), "comments" (input field), and "due date" (input field with calendar icon). Below the form are "Update" and "Delete" buttons. At the bottom right, there is a watermark: "Activate Windows Go to Settings to activate Windows."

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 a ServiceNow interface titled "Approvals". The main content area displays a table with the following columns: State, Approver, Comments, Approval for, and Created. The table contains 16 rows, each representing an approval record. The rows alternate in color between light gray and white. The "State" column uses color-coded icons: green for Approved, red for Rejected, and yellow for Requested. The "Comments" column contains either "(empty)" or a name like "alice p", "Fred Luddy", etc. The "Approval for" column contains codes such as "CHG0000096" and "CHG0000095". The "Created" column shows dates and times from 2024-09-01 to 2024-10-22.

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 scenario highlights a structured approach to project management, showcasing the roles of Alice and Bob within a defined workflow. With Alice's oversight and Bob's execution, the team effectively collaborates to ensure project success. The use of tables organizes key information, facilitating easy tracking of projects, tasks, and progress updates. Overall, this system promotes accountability, enhances communication, and leads to the successful completion of projects.

