

Optimizing User, Group, and Role Management with Access Control and Workflows

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Team Members: 4.

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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:

- ↳ Define User Roles Clearly: Establish distinct roles for Alice (Project Manager) and Bob (Team Member) to ensure clarity in responsibilities and access rights within the project management tool.
- ↳ Implement Access Control Mechanisms: Create a system that restricts Bob's access to project creation and editing features while allowing him to view and update his assigned tasks, thereby preventing unauthorized changes.
- ↳ Streamline Workflow Processes.

Skills:

Users, Groups, Roles, Tables, Access Control List, Flow Designer

TASK INITIATION

Milestone 1 : Users

Activity 1: Create Users

- ↳ Open service now
- ↳ Click on All << search for users
- ↳ Select Users under system security
- ↳ Click on new
- ↳ Fill the following details to create a new user
- ↳ Click on submit

The screenshot shows the ServiceNow User Detail View for a user named 'alice p'. The User ID field contains 'alice' and is highlighted with a red box. Other fields visible include First name ('alice'), Last name ('p'), Email ('alice@gmail.com'), Language ('-- None --'), Calendar integration ('Outlook'), Time zone ('System (America/Los_Angeles)'), Date format ('System (yyyy-MM-dd)'), Business phone, Mobile phone, and Photo (Click to add...). The 'Active' checkbox is checked. Related links include View linked accounts, View Subscriptions, and Reset a password. Below the main form are tabs for Entitled Custom Tables, Roles (3), Groups (1), Delegates, Subscriptions, and User Client Certificates.

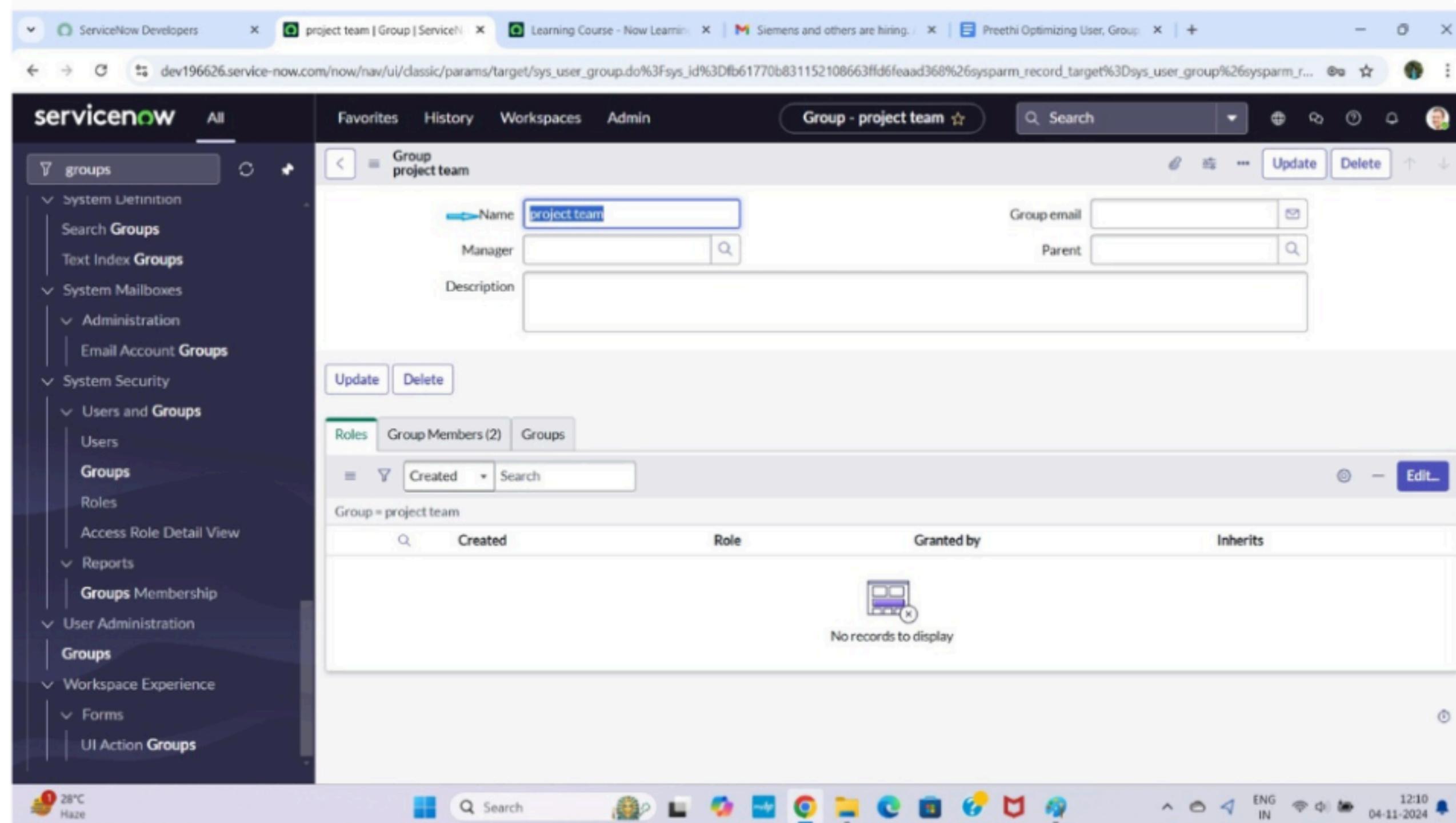
- Create one more user:**
- Create another user with the following details
 - Click on submit

The screenshot shows the ServiceNow User Detail View for a user named 'Bob p'. The User ID field contains 'bob' and is highlighted with a red box. Other fields visible include First name ('Bob'), Last name ('p'), 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, and Photo (Click to add...). The 'Active' checkbox is checked. Related links include View linked accounts, View Subscriptions, and Reset a password. Below the main form are tabs for Entitled Custom Tables, Roles (2), Groups (1), Delegates, Subscriptions, and User Client Certificates.

Milestone 1 : 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

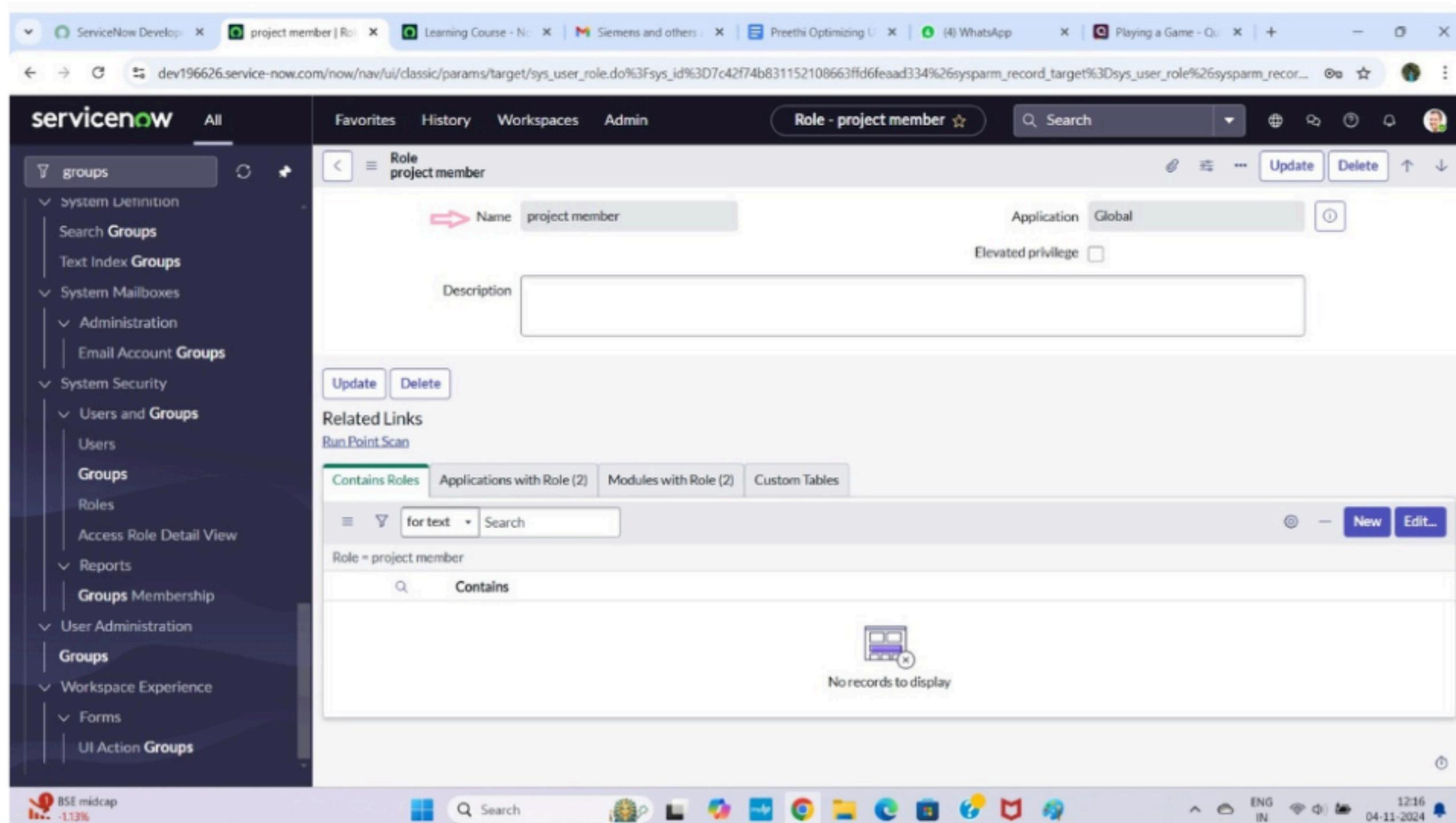


Milestone 2 : Roles

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

1. Click on submit



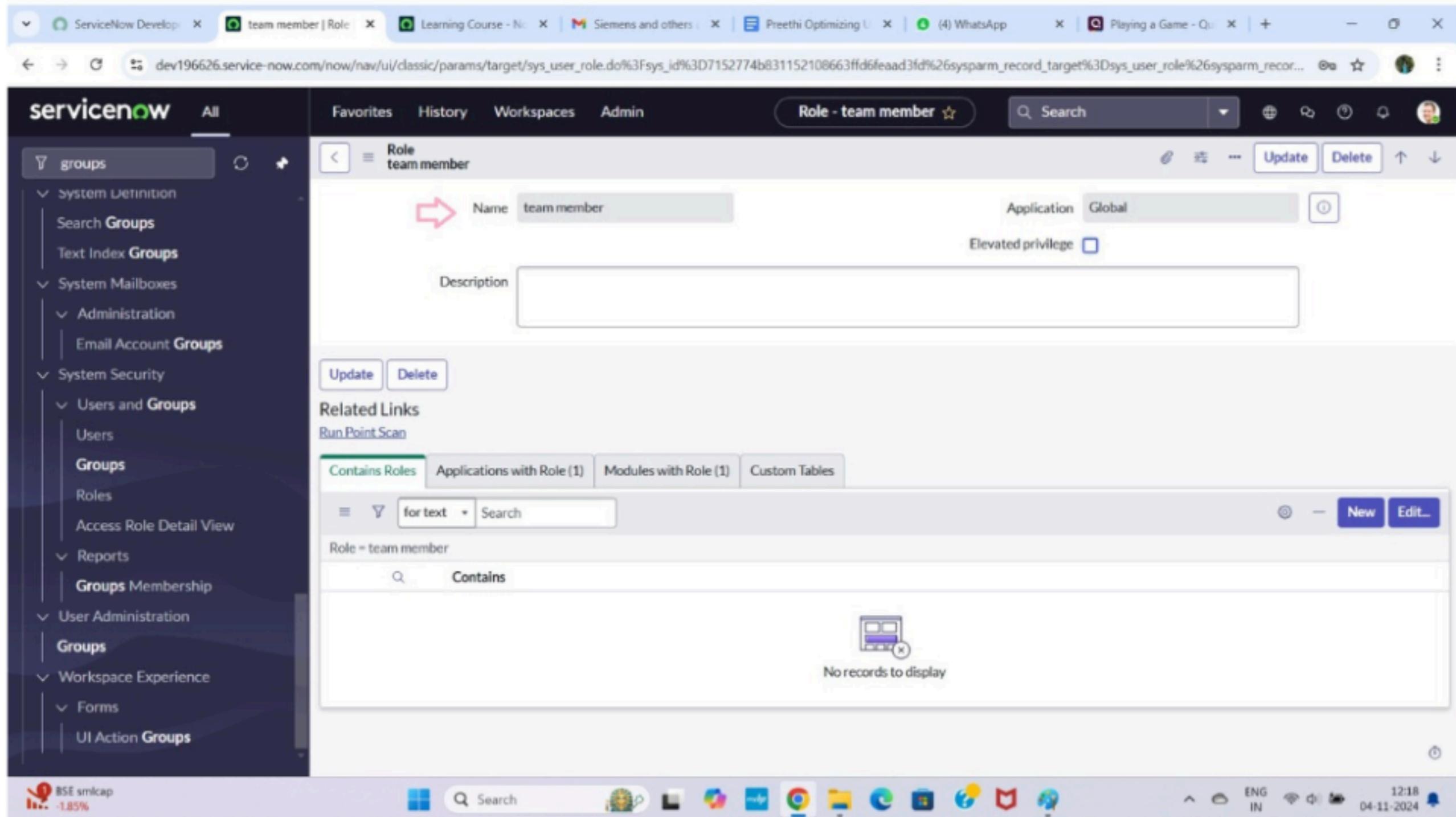
Create one more role :

- ✓. Create another role with the following details
- ✗. Click on submit

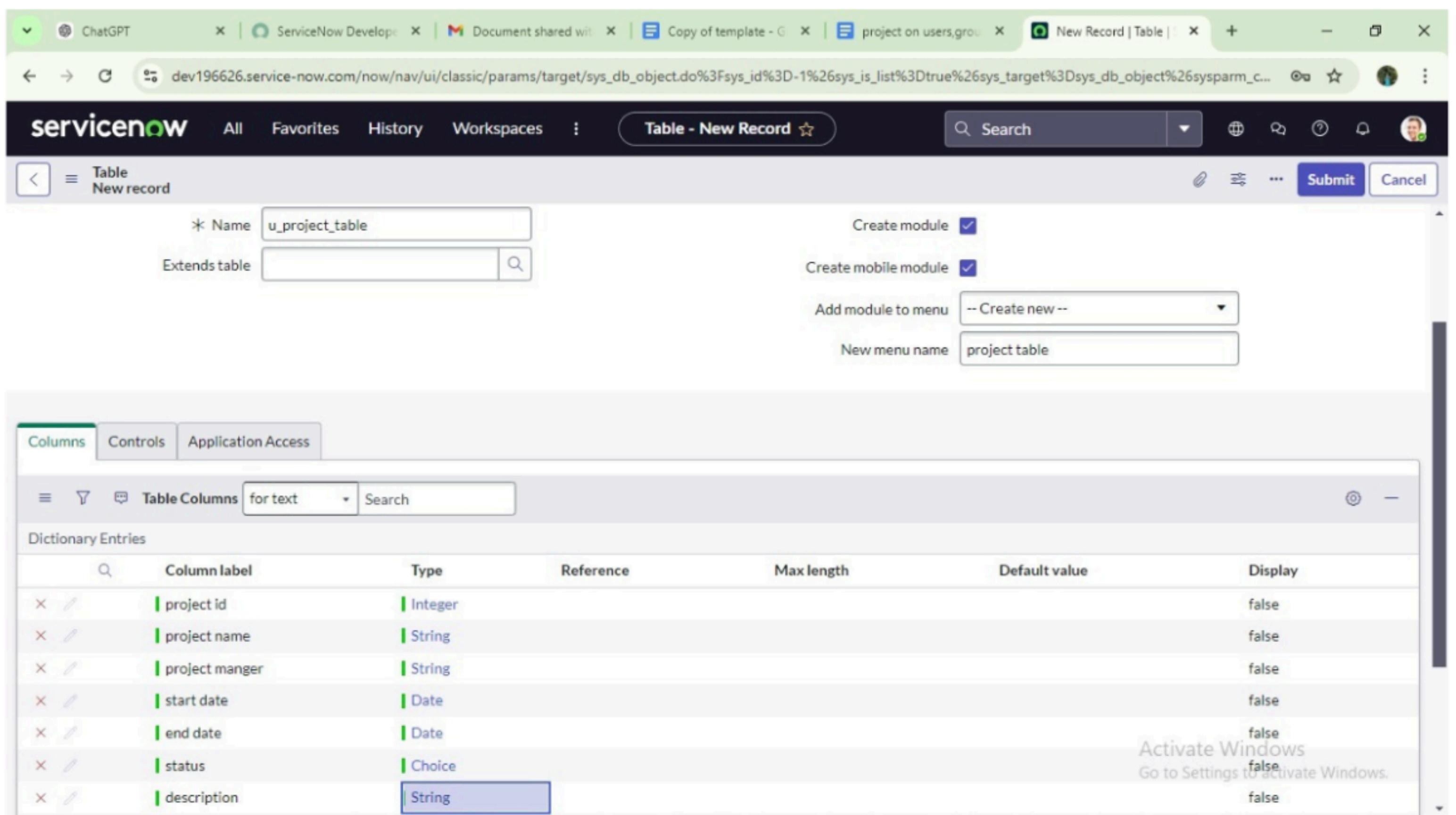
Milestone 1 : Table

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



A. Click on submit



Create one more table:

1. Create another table as : task table ↴ and fill with following details .
2. Click on submit .

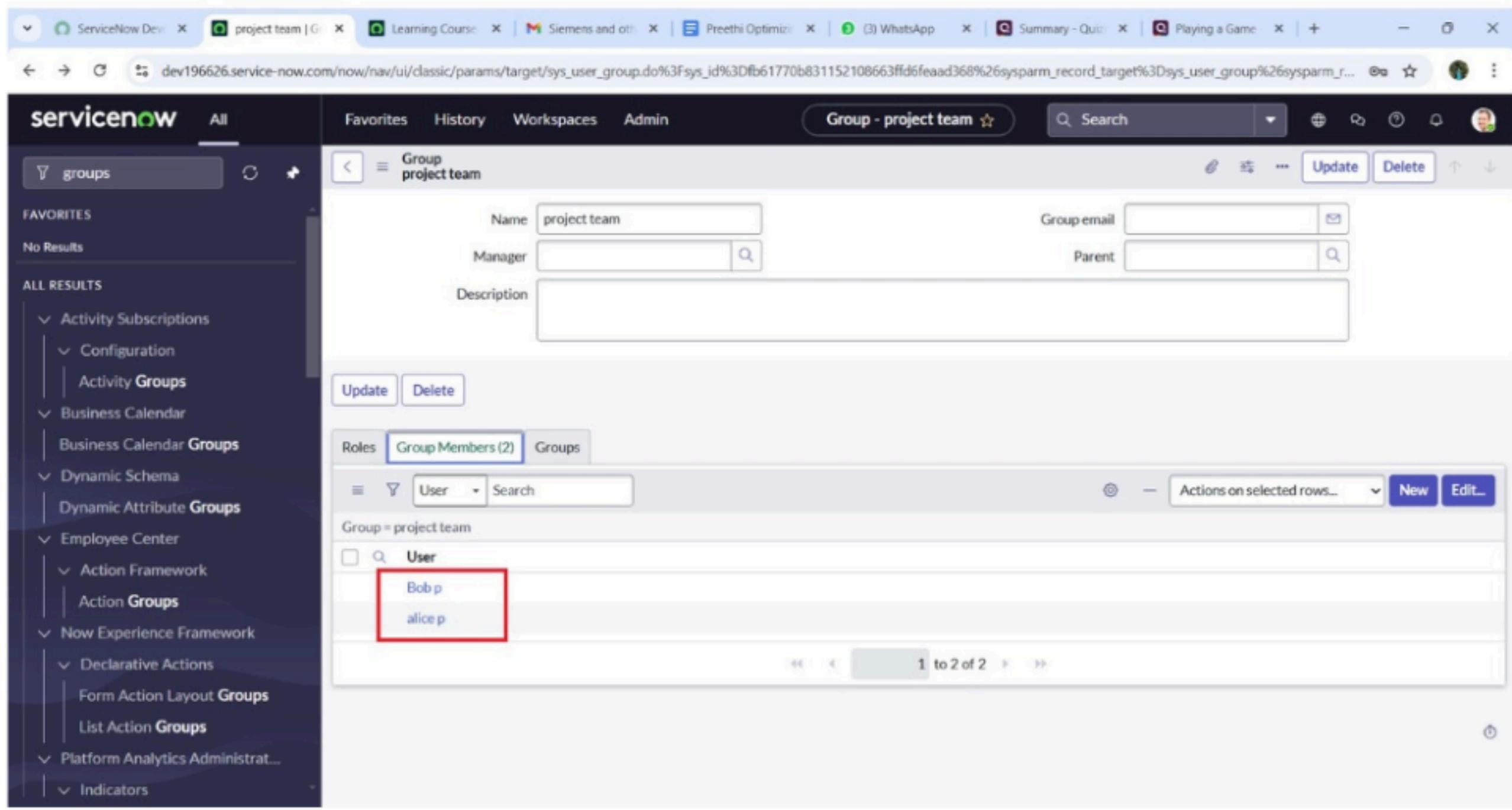
The screenshot shows the ServiceNow developer interface with the title "Table - task table 2". The table structure is defined as follows:

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	Sys ID (GUID)	(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

Milestone 0 : 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 1 : 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' record for 'User - alice p'. The left sidebar navigation is visible, showing various system categories like System Definition, System Mailboxes, System Security, and Reports. The main content area displays the user's profile with tabs for 'Active' (checked), 'Web service access only' (unchecked), and 'Internal Integration User' (unchecked). Below this are buttons for 'Update', 'Set Password', and 'Delete'. A 'Related Links' section includes 'View linked accounts', 'View Subscriptions', and 'Reset a password'. The 'Roles' tab is selected, showing a table with three rows:

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

The first row, 'u_task_table_2_user', is highlighted with a red box.

Activity 1: 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 table.

The screenshot shows the ServiceNow user interface for a user named 'Bob p'. The left sidebar navigation includes 'System Definition', 'Search Groups', 'Text Index Groups', 'System Mailboxes', 'Administration', 'Email Account Groups', 'System Security', 'Users and Groups' (selected), 'Users', 'Groups' (highlighted in blue), 'Roles', 'Access Role Detail View', 'Reports', 'Groups Membership', 'User Administration', 'Groups' (highlighted in blue), 'Workspace Experience', 'Forms', and 'UI Action Groups'. The main content area displays the user's details: 'User - Bob p', 'Web service access only' (checkbox checked), 'Internal Integration User' (checkbox unchecked). Below this are 'Related Links' for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. The 'Roles' tab is selected, showing a table with two rows:

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

At the bottom of the screen, the Windows taskbar shows icons for various applications like File Explorer, Google Chrome, and Microsoft Edge. The system tray indicates it's 14:06 on 04-11-2024.

Milestone v : Application access

Activity \ : 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 table\ and click on edit application.
6. Give the project member and team member role for task table\ application

Screenshot of the ServiceNow Application Menu - project table configuration page.

Application Menu - project table

Project Table Application Menu Configuration:

- Title:** project table
- Category:** Custom Applications
- Active:** checked
- Restricts access to specified roles:** project member
- Hint:** (empty)
- Description:** (empty)

Buttons: Update, Delete

Screenshot of the ServiceNow Application Menu - task table 2 configuration page.

Task Table 2 Application Menu Configuration:

Title: task table 2

Category: Custom Applications

Active: checked

Restricts access to specified roles: u_task_table_2_user, project member, team member

Hint: (empty)

Description: (empty)

Buttons: Update, Delete

Milestone \wedge : Access control list

Activity \backslash : 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 'Access Control - New Record' page in ServiceNow. The main form fields include:

- Type: record
- Operation: write
- Decision Type: Allow If
- Application: Global
- Active: checked
- Admin overrides: checked
- Protection policy: None
- Name: task table 2 [u_task_table_2]
- Description: (empty)
- Applies To: No. of records matching the condition: 1
Add Filter Condition | Add "OR" Clause
-- choose field -- | -- oper -- | -- value --

At the bottom, there is a 'Conditions' section with the note: "Access Control Rules have two decision types, and these types will behave differently depending on conditions."

1. Fill the following details to create a new ACL
2. Scroll down under requires role
3. Doubleclickon insert a newrow
4. Give tasktable and team member role
5. Click on submit
6. Similarly create 4 acl for the following fields

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_leave_request	Allow If	delete	record	true	admin	2024-10-22 02:27:59
u_leave_request	Allow If	create	record	true	admin	2024-10-22 02:27:59
u_task_table	Allow If	read	record	true	admin	2024-10-22 04:21:28
u_task_table	Allow If	write	record	true	admin	2024-10-22 04:20:15
u_task_table.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 04:33:53
u_task_table.u_due_date	Allow If	write	record	true	admin	2024-10-22 04:33:14
u_task_table.u_task_id	Allow If	write	record	true	admin	2024-10-22 04:27:47
u_task_table.u_task_name	Allow If	write	record	true	admin	2024-10-22 04:31:14
u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:05:07
u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:26:57
u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:05:07
u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:28:27
u_task_table_2	Allow If	create	record	true	admin	2024-10-22 21:05:06
u_task_table_2	Allow If	delete	record	true	admin	2024-10-22 21:05:07
u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 21:31:20

11. Click on profile on top right side
12. Click on impersonate user
13. Select bob user
14. Go to all and select task table in the application menu bar
15. Comment and status fields are have the edit access

The screenshot shows a ServiceNow application window titled "task table 2 - Create Created". The form contains the following fields:

- task id
- task name
- status: -- None --
- assigned to
- comments
- due date

At the bottom left is a "Submit" button. On the right side of the page, there is a watermark that says "Activate Windows Go to Settings to activate Windows."

Milestone 4: 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.

Screenshot of the ServiceNow web interface showing a search results page for "flow".

The search results sidebar shows:

- FAVORITES: No Results
- ALL RESULTS:
 - Process Automation
 - Workflow Studio
 - Flow Designer
 - Flow & Action Designer
 - Today's Executions
 - Active Flows
 - Content Definitions

The main search results area displays fields for a task table record:

assigned to	bob
comments	
due date	

Buttons at the top right include: Update, Delete, Up, Down.

Activate Windows
Go to Settings to activate Windows.

URL: https://dev196626.service-now.com/\$flow-designer.do?sysparm_nostack=true

Screenshot of the ServiceNow Workflow Studio interface.

The top navigation bar includes: Workflow Studio, task table, Flow, Homepage, Operations, Integrations.

The main area shows a list of Flows (39) with columns: Name, Application, Status, Active, Update.

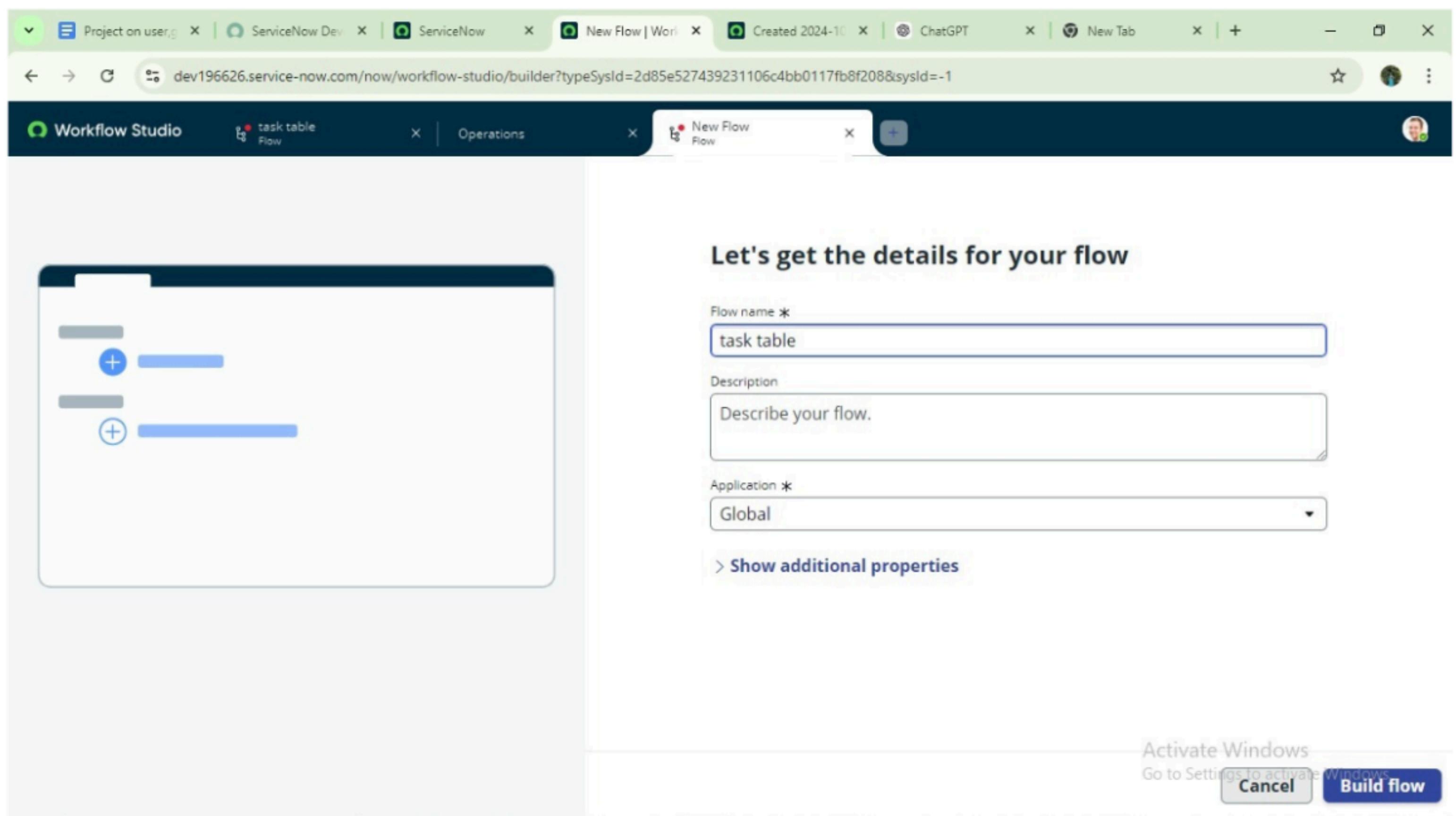
Name	Application	Status	Active	Update
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09
Business process approval flow	Global	Published	true	2020-09
Change - Cloud Infrastructure - Authorize	Global	Published	true	2020-11-11 07:08:05
Change - Emergency - Authorize	Global	Published	true	2020-10-06 05:39:49
Change - Emergency - Implement	Global	Published	true	2020-09-23 05:06:26
Change - Emergency - Review	Global	Published	true	2020-10-27 04:18:08
Change - Normal - Assess	Global	Published	true	2020-10-06 05:37:05
Change - Normal - Authorize	Global	Published	true	2020-10-06 05:38:35
Change - Normal - Implement	Global	Published	true	2020-09-23 04:23:59

A modal window titled "New" is open, showing options: Playbook, Flow (selected), Subflow, Action, Decision table.

Side panels include:

- "Pick up where you left off": task table, Create Flow Data, Steps.
- "Latest updates": System Administrator modified task table, Create Flow Data, Steps.

URL: https://dev196626.service-now.com/now/workflow-studio/home/flow



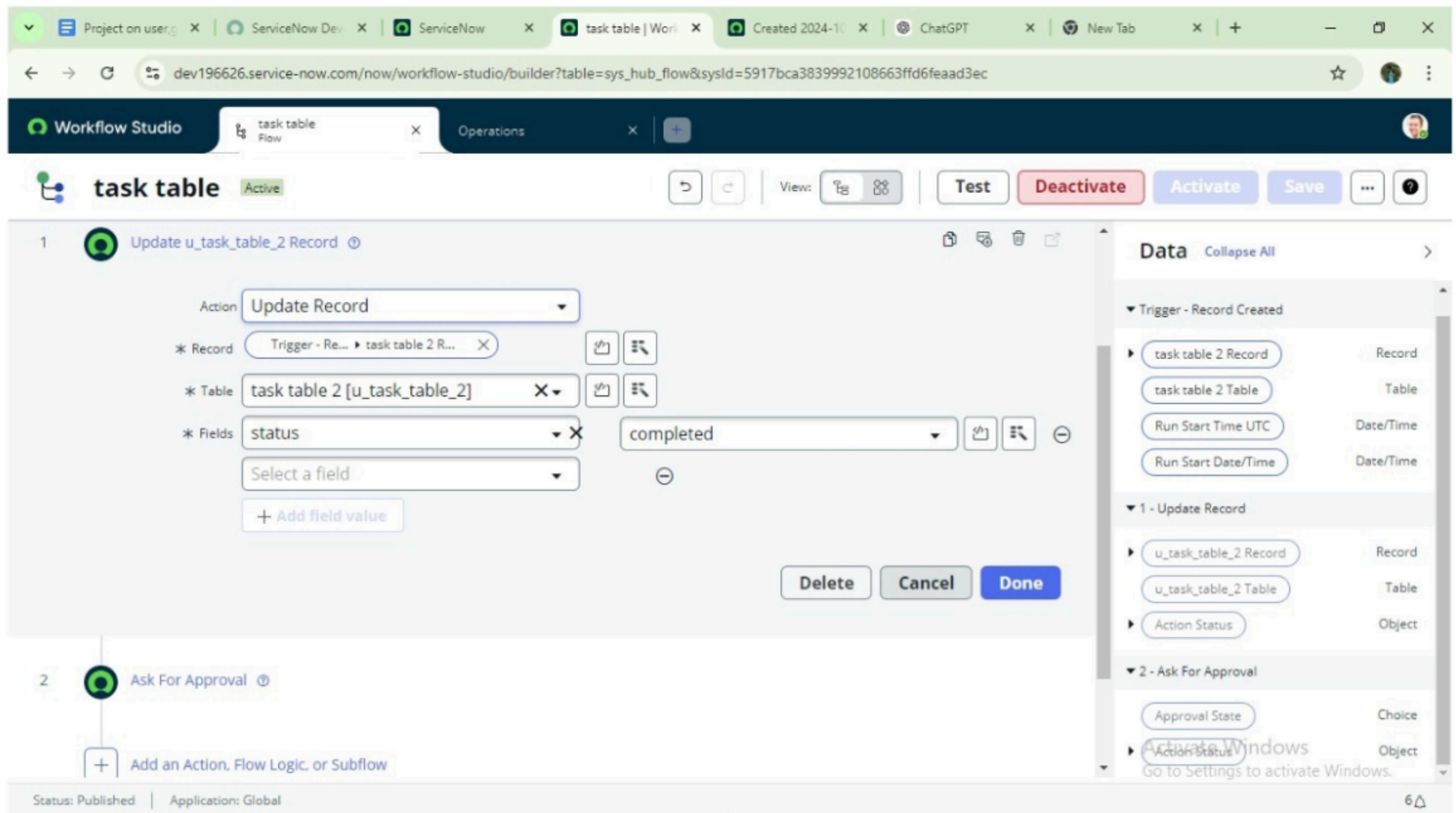
next step

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.

The screenshot shows the ServiceNow Workflow Studio interface. A trigger is being configured for the 'task table 2' table. The trigger type is 'Created' and it is applied to the 'task table 2 [u_task_table_2]' table. The condition for the trigger is set to 'All of these conditions must be met'. The first condition is 'status is in progress', followed by 'comments is feedback', and 'assigned to is bob'. There is also an option to add 'New Criteria'. On the right side, there is a sidebar titled 'Data' which lists various actions and objects available for selection.

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.

1. Go to application navigator search for task table.
2. 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 got approval request then right click on requested then select approved

The screenshot shows a ServiceNow interface with the title 'servicenow' and a tab labeled 'Approvals'. The main area displays a table of approval requests. The columns are: State, Approver, Comments, Approval for, and Created. A search bar at the top left is set to 'Created' and contains the text 'alice p'. The table rows show various users and their approval status. One row is highlighted with a blue background, indicating it has been selected or is the current focus. The 'State' column includes categories like Approved, Rejected, and Requested.

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.