

Project Title: Optimizing User, Group, and Role Management with Access Control And Workflows.

Team Id: NM2025TMID15002

Team Members: 4

Team Leader: AFROSE BANU S

Team Member 1: ALVIN ANTONY X

Team Member 2: GAJENDIRAN R

Team Member 3: RENUKA R

Problem Statement: Optimize user, group, role, and access control management by eliminating redundancies, enforcing least privilege, and automating workflows to enhance security, efficiency, and compliance.

Objective: To streamline and secure the management of users, groups, and roles by implementing effective access controls and automated workflows, reducing manual effort and ensuring compliance.

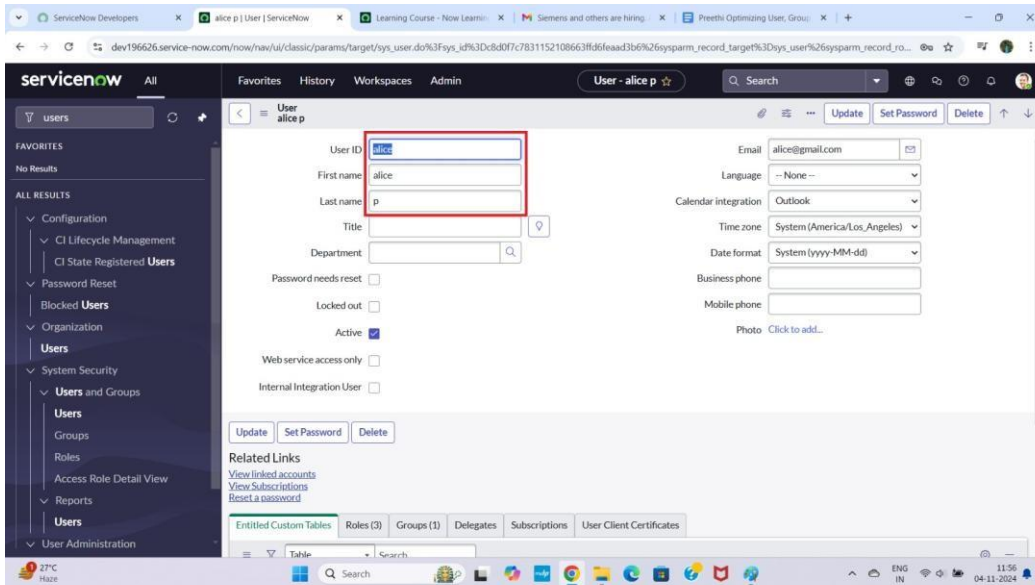
Skills:

TASK INITIATION

Milestone 1: Users

Activity 1: Creating a User in ServiceNow

- 1. Open ServiceNow.**
- 2. Navigate to All and search for Users.**
- 3. Under System Security, select Users.**
- 4. Click on the New button to create a user record.**
- 5. Enter the required user details in the form.**
- 6. Click Submit to save the new user.**

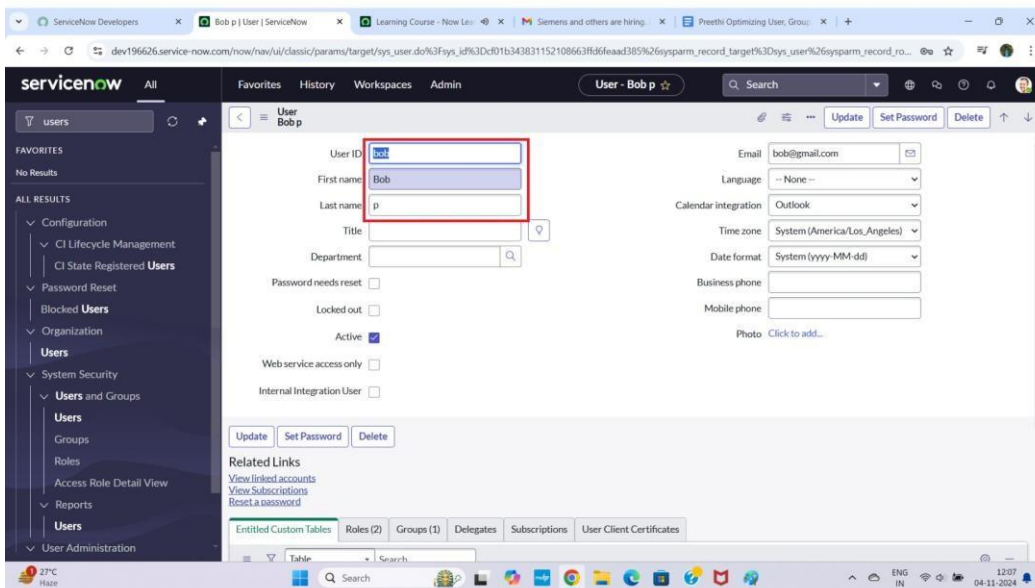


The screenshot shows the ServiceNow User Administration interface for a user named 'alice p'. The 'User ID' field is highlighted with a red box and contains the value 'alice'. Other fields include 'First name' (alice), 'Last name' (p), 'Email' (alice@gmail.com), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone', 'Mobile phone', 'Photo' (Click to add...), 'Password needs reset' (checkbox), 'Locked out' (checkbox), 'Active' (checkbox), 'Web service access only' (checkbox), and 'Internal Integration User' (checkbox). The 'Update', 'Set Password', and 'Delete' buttons are visible at the bottom of the form.

7. To create another user, click New again and enter the following details for the second user:

- **User ID: bob**
- **First Name: Bob**

8. Click Submit to complete the creation.



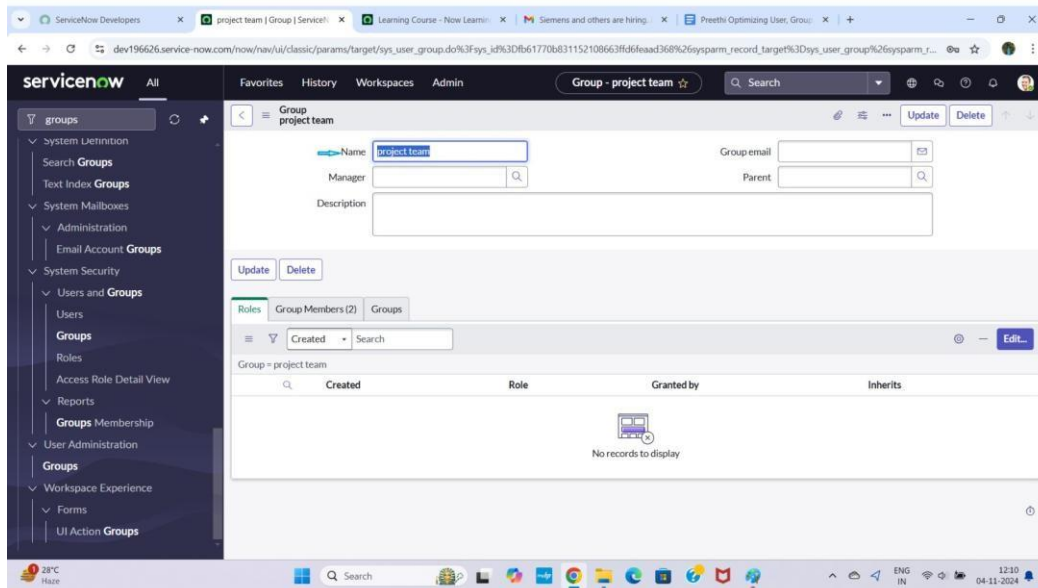
The screenshot shows the ServiceNow User Administration interface for a user named 'Bob p'. The 'User ID' field is highlighted with a red box and contains the value 'bob'. Other fields include 'First name' (Bob), 'Last name' (p), 'Email' (bob@gmail.com), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone', 'Mobile phone', 'Photo' (Click to add...), 'Password needs reset' (checkbox), 'Locked out' (checkbox), 'Active' (checkbox), 'Web service access only' (checkbox), and 'Internal Integration User' (checkbox). The 'Update', 'Set Password', and 'Delete' buttons are visible at the bottom of the form.

Milestone 2 : Groups



Activity 1: Creating Groups in ServiceNow

1. Open ServiceNow.
2. Navigate to All, then search for Groups.
3. Under System Security, select Groups.
4. Click on New to create a new group.
5. Enter the required group details in the form.
6. Click Submit to save the group.



The screenshot shows the ServiceNow web interface for creating a new group. The left sidebar displays the navigation menu with 'Groups' selected under 'System Security'. The main form area is titled 'Group - project team' and contains the following fields:

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

Below the form are 'Update' and 'Delete' buttons. Underneath is a tabbed interface with 'Roles', 'Group Members (2)', and 'Groups' tabs. The 'Roles' tab is active, showing a table with columns: Created, Role, Granted by, and Inherits. The table is currently empty, displaying 'No records to display'.

Milestone 3: Roles

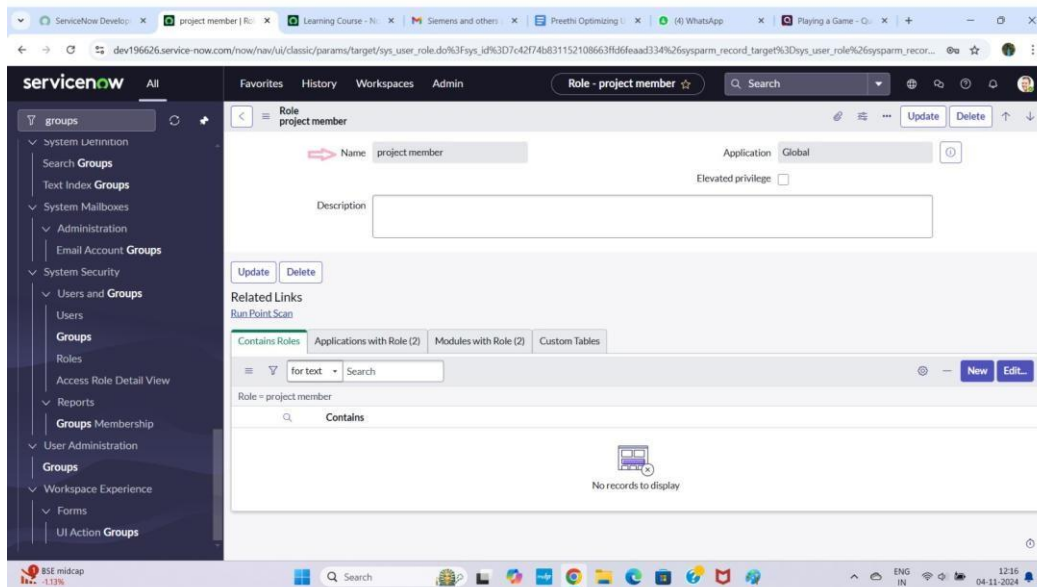
Activity 1: Creating Roles in ServiceNow

1. Open ServiceNow.
2. Go to All and search for Roles.
3. Under System Security, select Roles.
4. Click New to create a new role.
5. Fill in the required role details in the form.
6. Click Submit to save the new role.

7. To create another role, click New and enter the following details:

- **Name:** [Enter Role Name]
- **Description:** [Optional – Enter description if needed]
- **Fill in any other required fields.**

8. Click Submit to save the new role.

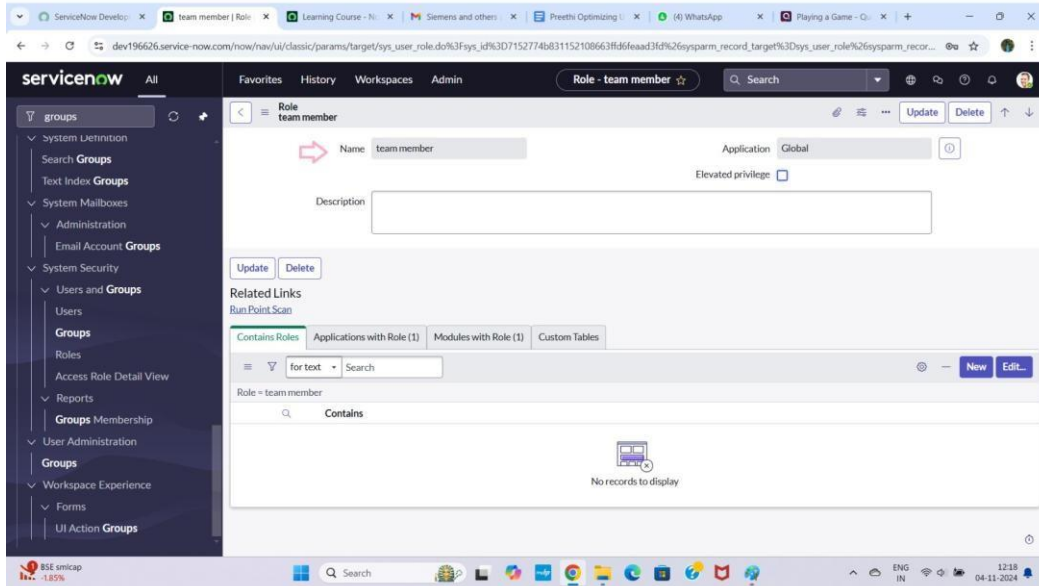


Milestone 4: Table

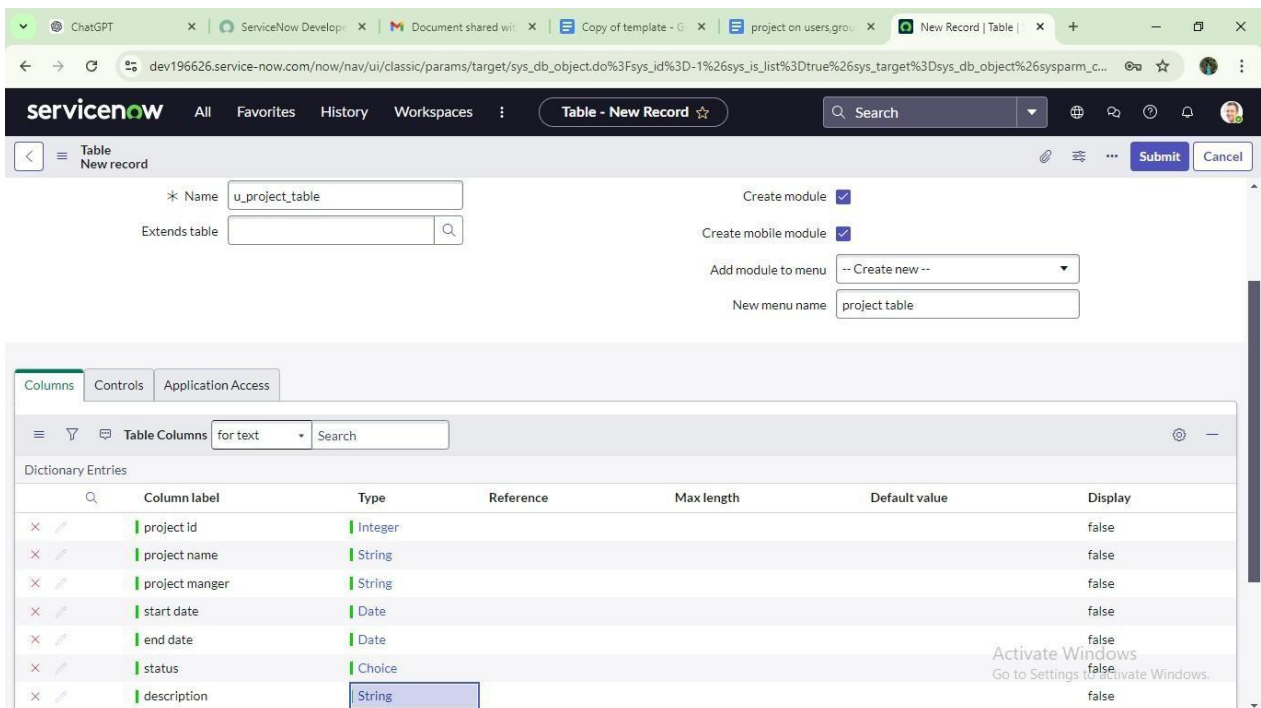
Activity 1: Creating a Table in ServiceNow

1. **Open ServiceNow.**
2. **Navigate to All and search for Tables.**
3. **Under System Definition, select Tables.**
4. **Click New to create a new table.**
5. **In the form, enter the following details:**
 - **Label:** Project Table
 - **Check the boxes for Create module and Create mobile module.**
6. **Under New Menu Name, enter: Project Table.**
7. **In the Table Columns section, define the required columns for the table.**

8. Click on Submit.



The screenshot shows the ServiceNow 'Role - team member' configuration page. The left sidebar contains a navigation menu with categories like System Definition, System Mailboxes, Administration, System Security, Users and Groups, Reports, Groups Membership, User Administration, Workspace Experience, and Forms. The main content area shows the role configuration with fields for Name (team member), Application (Global), and Description. Below these are buttons for Update and Delete, and a section for Related Links. A 'Contains Roles' table is visible, showing no records.



The screenshot shows the ServiceNow 'Table - New Record' configuration page for 'u_project_table'. The form includes fields for Name (u_project_table), Extends table, Create module (checked), Create mobile module (checked), Add module to menu (dropdown), and New menu name (project table). Below the form is a 'Columns' tab with a table of Dictionary Entries.

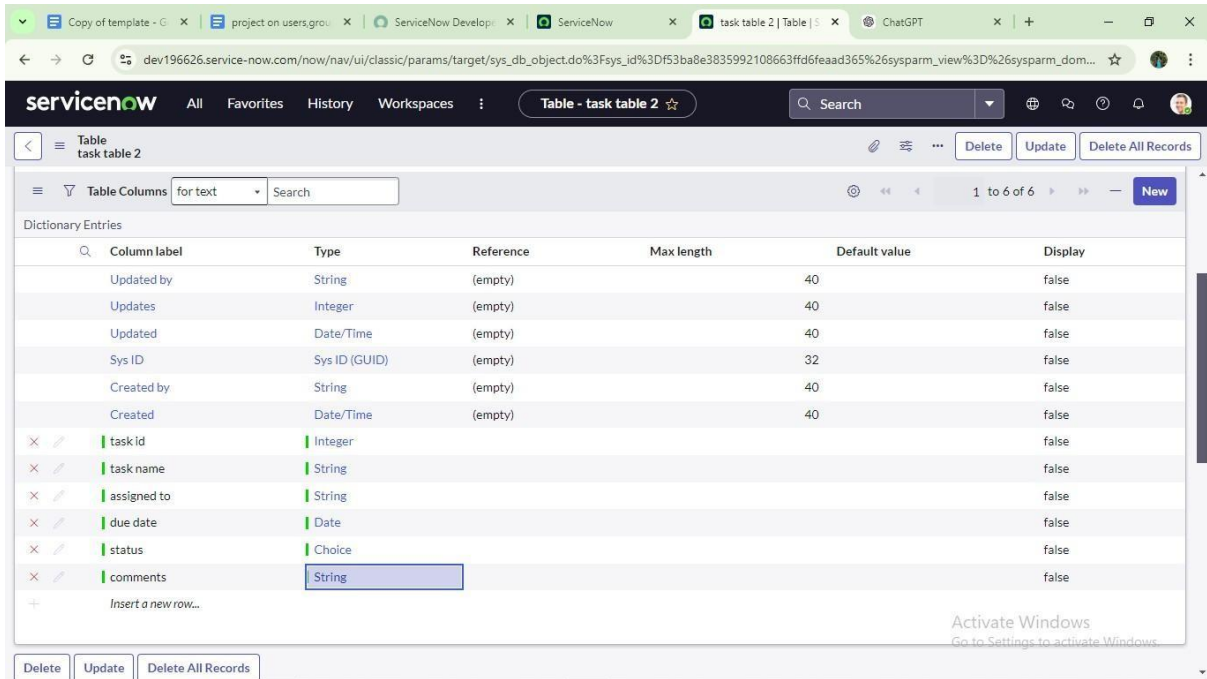
	Column label	Type	Reference	Max length	Default value	Display
<input type="checkbox"/>	project id	Integer				false
<input type="checkbox"/>	project name	String				false
<input type="checkbox"/>	project manger	String				false
<input type="checkbox"/>	start date	Date				false
<input type="checkbox"/>	end date	Date				false
<input type="checkbox"/>	status	Choice				false
<input type="checkbox"/>	description	String				false

Activity 1: Creating Tables in ServiceNow (*continued*)

9. To create another table, click New and enter the following details:

- **Label: Task Table 2**
- **Complete all required fields accordingly.**

10. Click Submit to save the new table.



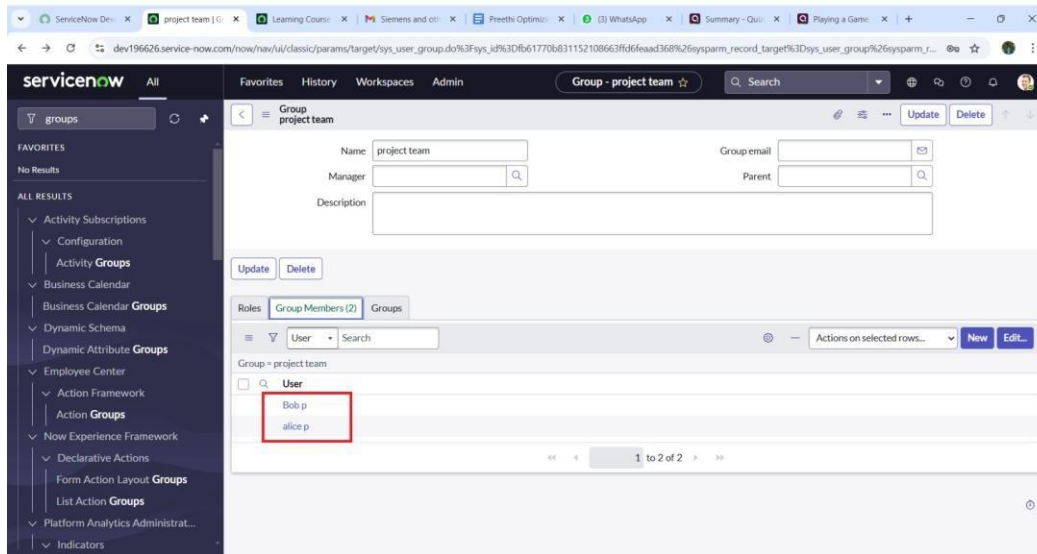
The screenshot shows the ServiceNow interface for configuring a table named 'task table 2'. The table has 7 columns: Column label, Type, Reference, Max length, Default value, and Display. The 'task table 2' table is currently empty. The 'task table 2' table is currently empty.

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 5: Assign Users to Groups

Activity 1: Assign Users to the Project Team Group

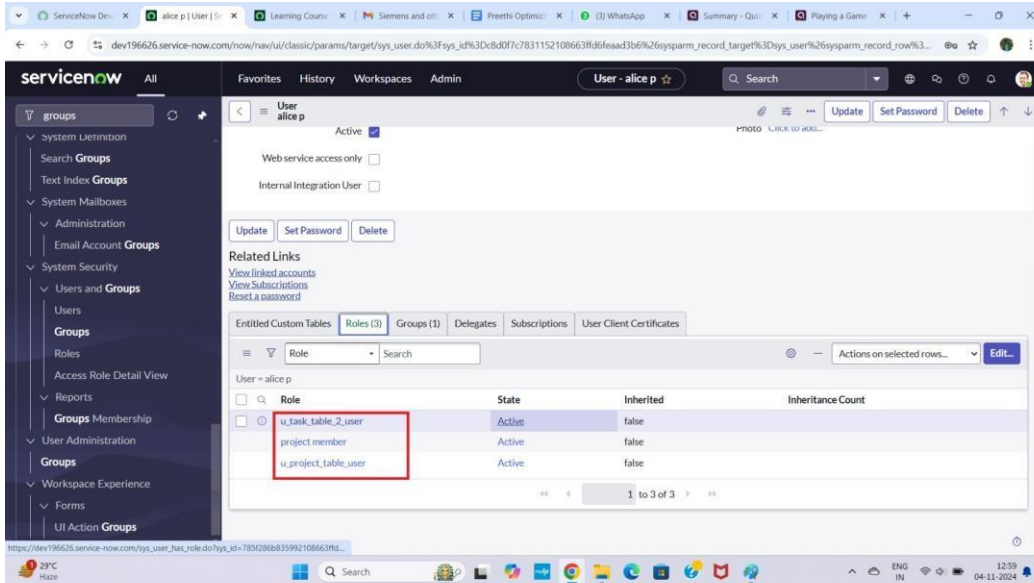
1. Open ServiceNow.
2. Navigate to All and search for Groups.
3. Under System Security, select Groups.
4. Locate and select the Project Team group.
5. In the Group Members section, click Edit.
6. Select Alice P and Bob P from the available users.
7. Save the changes to update the group members.



Milestone 6: Assign Roles to Users

Activity 1: Assign Roles to Alice User

1. Open ServiceNow.
2. Navigate to All and search for Users.
3. Select the user Alice from the list.
4. In Alice's user profile, click Edit under the Roles section.
5. Add the Project Member role and save the changes.
6. Click Edit again and add the roles `u_project_table` and `u_task_table`.
7. Click Save to update and finalize the changes.

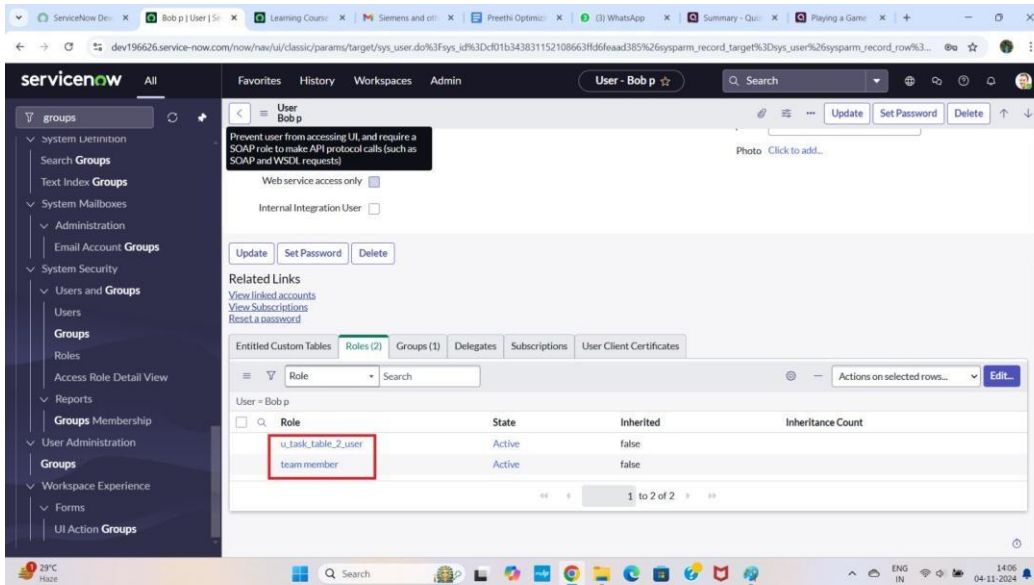


The screenshot shows the ServiceNow User Administration interface. The user 'alice p' is selected, and the 'Roles' tab is active. The table below lists the roles assigned to the user:

Role	State	Inherited	Inheritance Count
u.task_table_2_user	Active	false	
project member	Active	false	
u.project_table_user	Active	false	

Activity 2: Assign Roles to Bob User

1. Open ServiceNow.
2. Navigate to All and search for Users.
3. Select the user Bob P from the list.
4. In Bob's profile, go to the Team Member section and click Edit.
5. Assign the Team Member role along with the necessary table roles, then save the changes.
6. Click on the profile icon and select Impersonate User to log in as Bob.
7. Verify that Task Table 2 is visible in Bob's interface.



ServiceNow User Administration interface showing the 'Roles' tab for user 'Bob p'. The 'Roles' tab displays a table with columns: Role, State, Inherited, and Inheritance Count. Two roles are listed: 'u_task_table_2_user' and 'team member', both with a state of 'Active'. The 'team member' role is highlighted with a red box.

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

Milestone 7: Application Access

Activity 1: Assign Table Access to Applications

1. When creating a table, an application and module are automatically created for that table.
2. In the Application Navigator, search for the Project Table application.
3. Click Edit Module for the Project Table application.
4. Assign the Project Member role to this application.
5. Search for Task Table 2 in the Application Navigator and click Edit Application.
6. Assign both the Project Member and Team Member roles to the Task Table 2 application.



dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D9705334f831152108663ffd6feaad362

servicenow All Favorites History Admin Application Menu - project table Search

Application Menu
project table Update Delete

An application menu is a group of modules in the application navigator. Choose the roles that are required to access the application and add or remove modules in the related list below. [More Info](#)

* Title Application

Active ☒

Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.

Roles
project member

Specifies the [menu category](#), which defines the navigation menu style. The default value is Custom Applications.

Category

The text that appears in a tooltip when a user points to this application menu

Hint

Description

Update Delete

Activate Windows
Go to Settings to activate Windows.

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D114bece3835992108663ffd6feaad3dc

servicenow All Favorites History Admin Application Menu - task table 2 Search

Application Menu
task table 2 Update Delete

Application

Active ☒

Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.

Roles
u_task_table_2_user, project member, team member

Specifies the [menu category](#), which defines the navigation menu style. The default value is Custom Applications.

Category

The text that appears in a tooltip when a user points to this application menu

Hint

Description

Update Delete

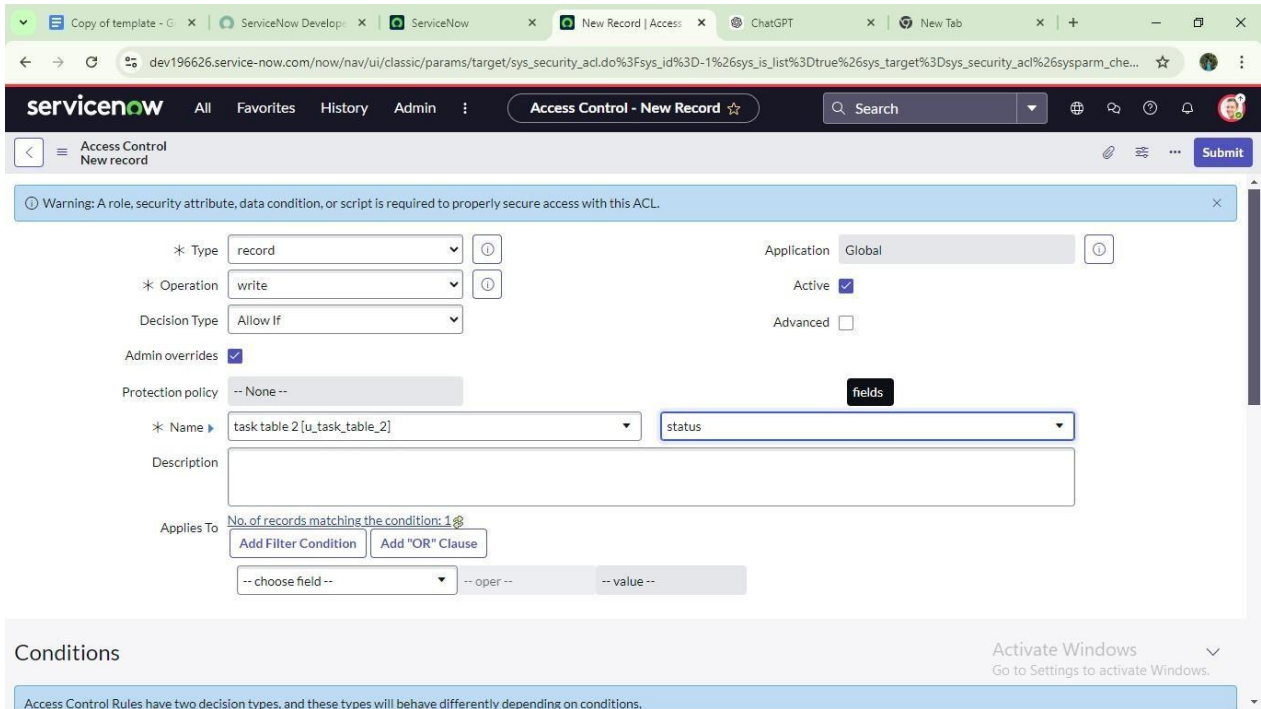
Activate Windows
Go to Settings to activate Windows.

Modules Order Search

Milestone 8: Access Control List (ACL)

Activity 1: Creating an ACL

1. Open ServiceNow.
2. Navigate to All and search for ACL.
3. Under System Security, select Access Control (ACL).
4. Click on elevate Role
5. Click new.



Warning: A role, security attribute, data condition, or script 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: task table 2 [u_task_table_2]

status

Description:

Applies To: No. of records matching the condition: 1

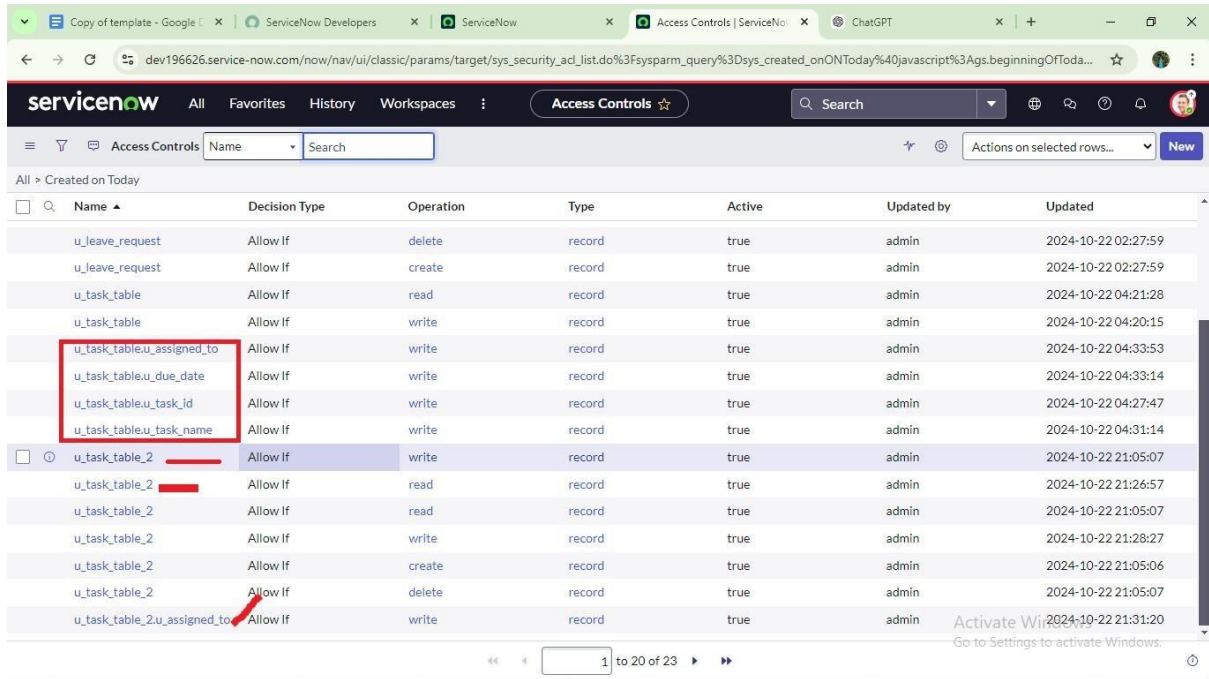
Add Filter Condition Add "OR" Clause

-- choose field -- -- oper -- -- value --

Conditions

Access Control Rules have two decision types, and these types will behave differently depending on conditions.

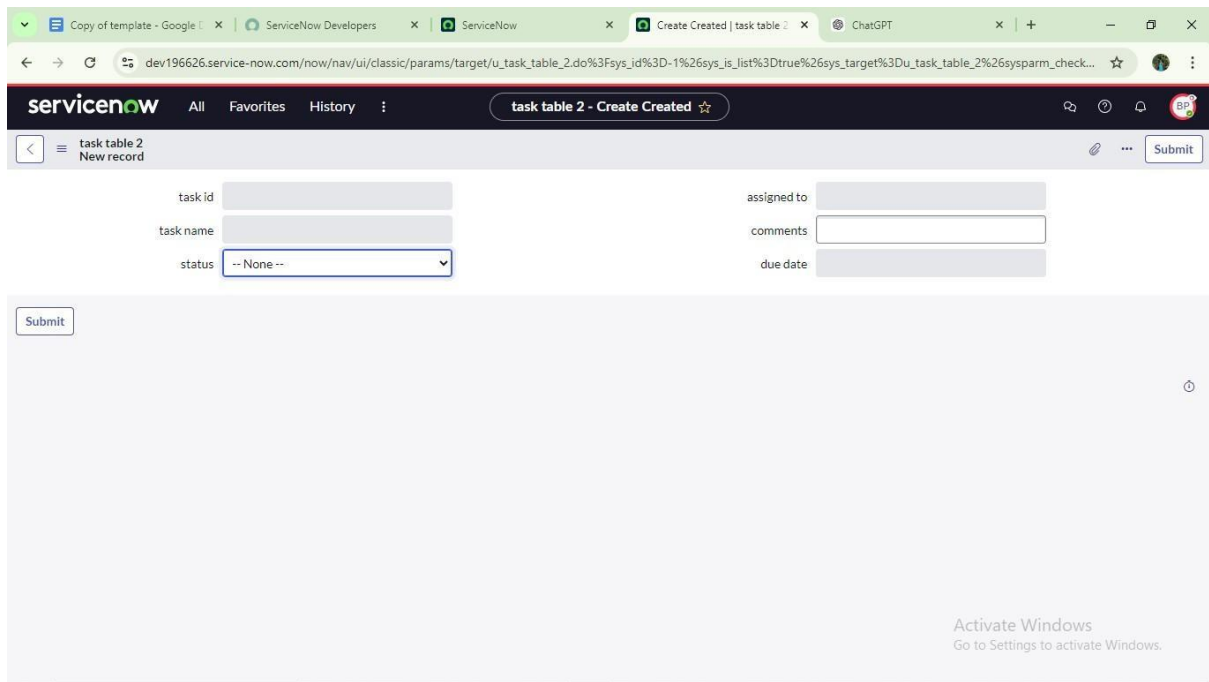
6. Fill in the required details to create a new ACL.
7. Scroll down to the Requires Role section.
8. Double-click to insert a new row.
9. Enter Task Table and assign the Team Member role.
10. Click Submit to save the ACL.
11. Repeat the process to create four additional ACLs for the specified fields.



The screenshot shows the ServiceNow Access Controls interface. The table lists various access control records. A red box highlights the records for 'u_task_table' and its associated fields. A red arrow points to the 'u_task_table_2' record.

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

12. Click on your profile icon at the top right corner.
13. Select Impersonate User from the dropdown.
14. Choose Bob as the user to impersonate.
15. Navigate to All and select Task Table 2 from the application menu.
16. Verify that the Comment and Status fields have edit access.



task id

task name

status -- None --

assigned to

comments

due date

Submit

Activate Windows
Go to Settings to activate Windows.

Milestone 9: Flow

Activity 1: Create a Flow to Assign Operations Ticket to Group

1. Open ServiceNow.
2. Navigate to All and search for Flow Designer.
3. Select Flow Designer under Process Automation.
4. Click New and choose Flow.
5. In the Flow Properties, enter the flow name as “Task Table”.
6. Set the Application to Global.
7. Click Build Flow to start designing the flow.



Project on user... ServiceNow Dev... ServiceNow... task table | Worl... Created 2024-10-22 2... ChatGPT... New Tab

dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6feaad3bb%26sysparm_record_target%3D%3Du_task_t...

servicenow All Favorites History task table 2 - Created 2024-10-22 2... Search

flow

FAVORITES
No Results

ALL RESULTS

- Process Automation
 - Workflow Studio
 - Flow Designer
 - Flow & Action Designer
- Today's Executions
- Active Flows
- Content Definitions

assigned to bob

comments

due date

Activate Windows
Go to Settings to activate Windows.

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

Project on user... ServiceNow Dev... ServiceNow... Homepage - Flow... Created 2024-10-22 2... ChatGPT... New Tab

dev196626.service-now.com/now/workflow-studio/home/flow

Workflow Studio task table Flow

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 39
Last refreshed just now

Name	Application	Status	Active	Update
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09-27 22:00:13
Business process approval flow	Global	Published	true	2020-09-27 22:00:13
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

New

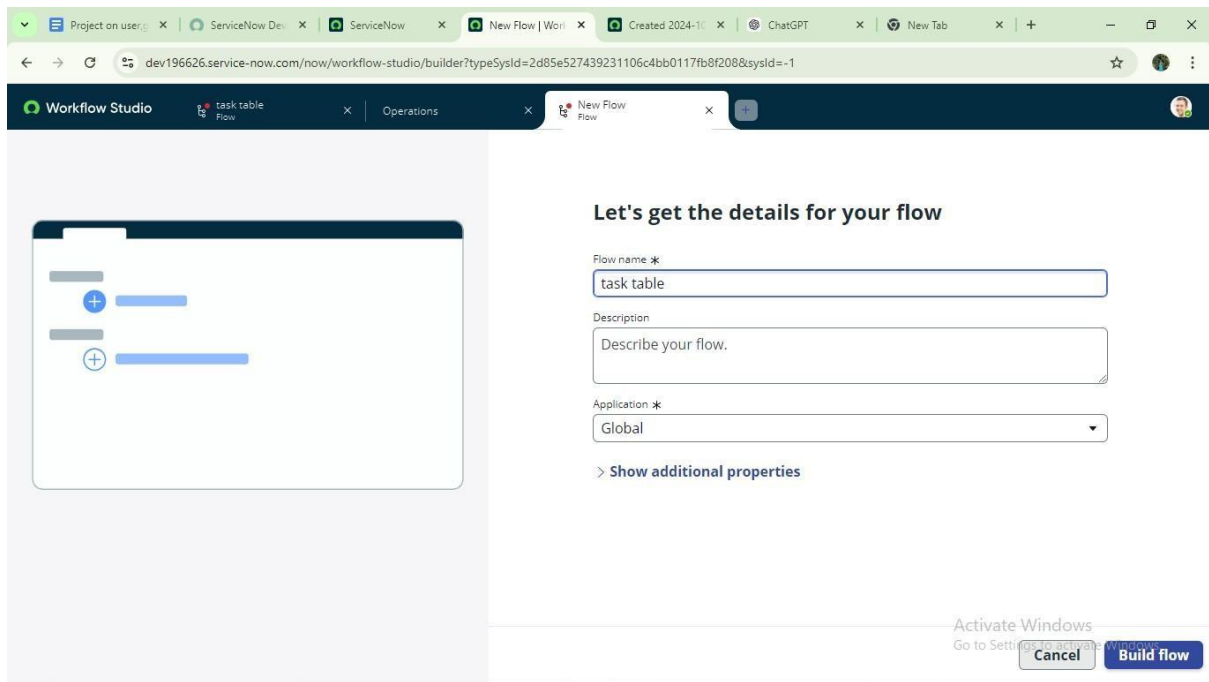
- Playbook
- Flow
- Subflow
- Action
- Decision table

Pick up where you left off

- task table
Last updated: 14 min. ago by Syst...
- Create Flow Data
Last updated: 5 months ago by Sy...
- Steps
Last updated: 5 months ago by Sy...

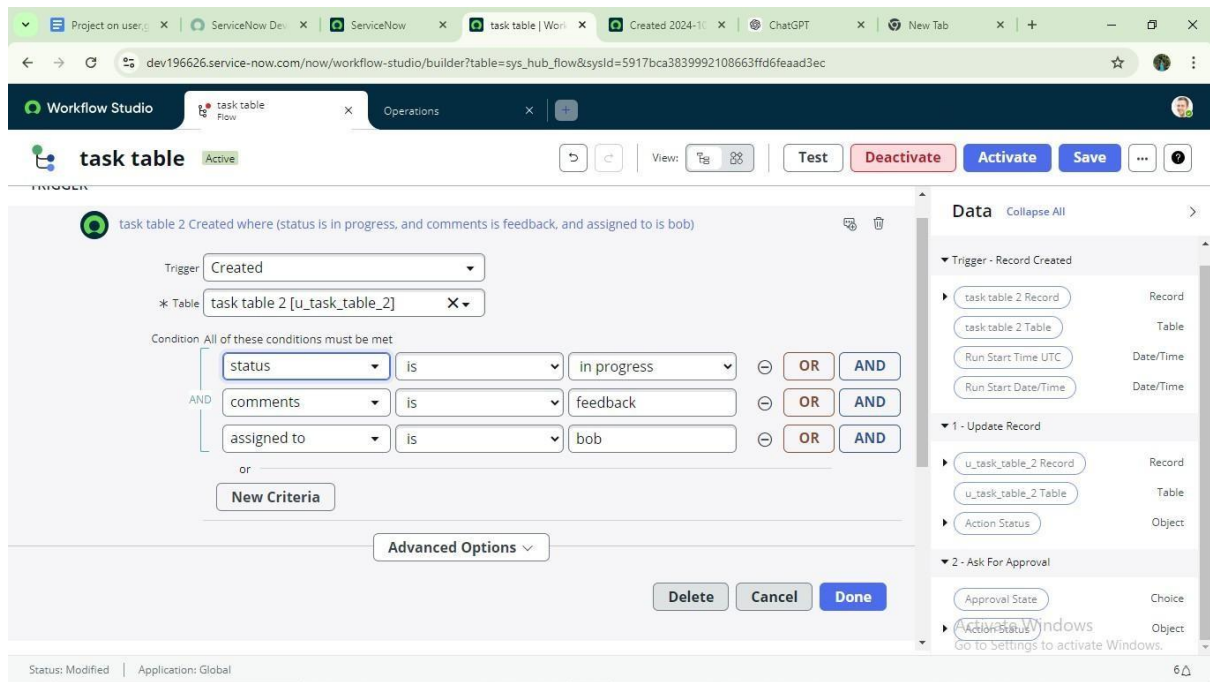
Latest updates

- System Administrator modified task table
14 min. ago
- System Administrator modified Create Flow Data
5 months ago
- System Administrator modified Steps
5 months ago



Next Step:

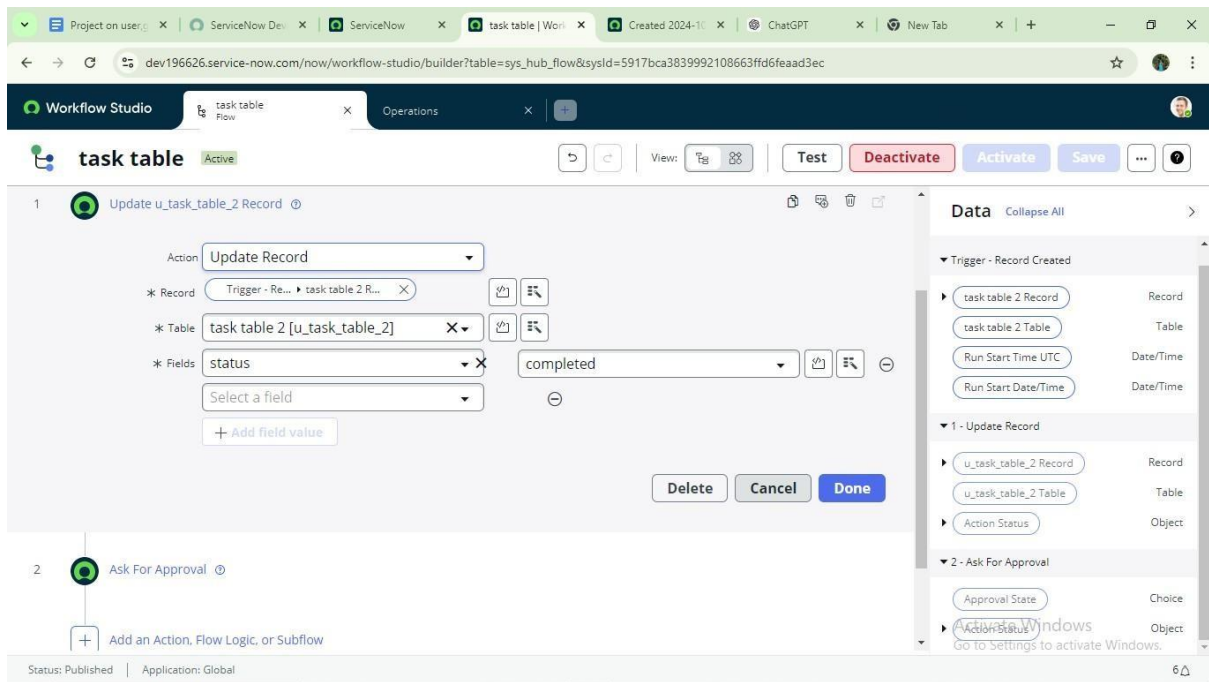
1. Click Add a Trigger.
2. Search for Create Record and select it.
3. Set the Table Name to Task Table.
4. Add the following conditions:
5. Field: Status | Operator: is | Value: In Progress
6. Field: Comments | Operator: is | Value: Feedback
7. Field: Assigned To | Operator: is | Value: Bob
8. Click Done.



The screenshot shows the ServiceNow Workflow Studio interface. The main configuration area is for a trigger named 'task table 2'. The trigger is set to 'Created' and is associated with the table 'task table 2 [u_task_table_2]'. The condition is defined as 'All of these conditions must be met' with three criteria: 'status' is 'in progress', 'comments' is 'feedback', and 'assigned to' is 'bob'. The right-hand panel shows the 'Data' section with a list of available data fields for the trigger, including 'task table 2 Record', 'task table 2 Table', 'Run Start Time UTC', 'Run Start Date/Time', 'u_task_table_2 Record', 'u_task_table_2 Table', 'Action Status', 'Approval State', and 'Action Windows'.

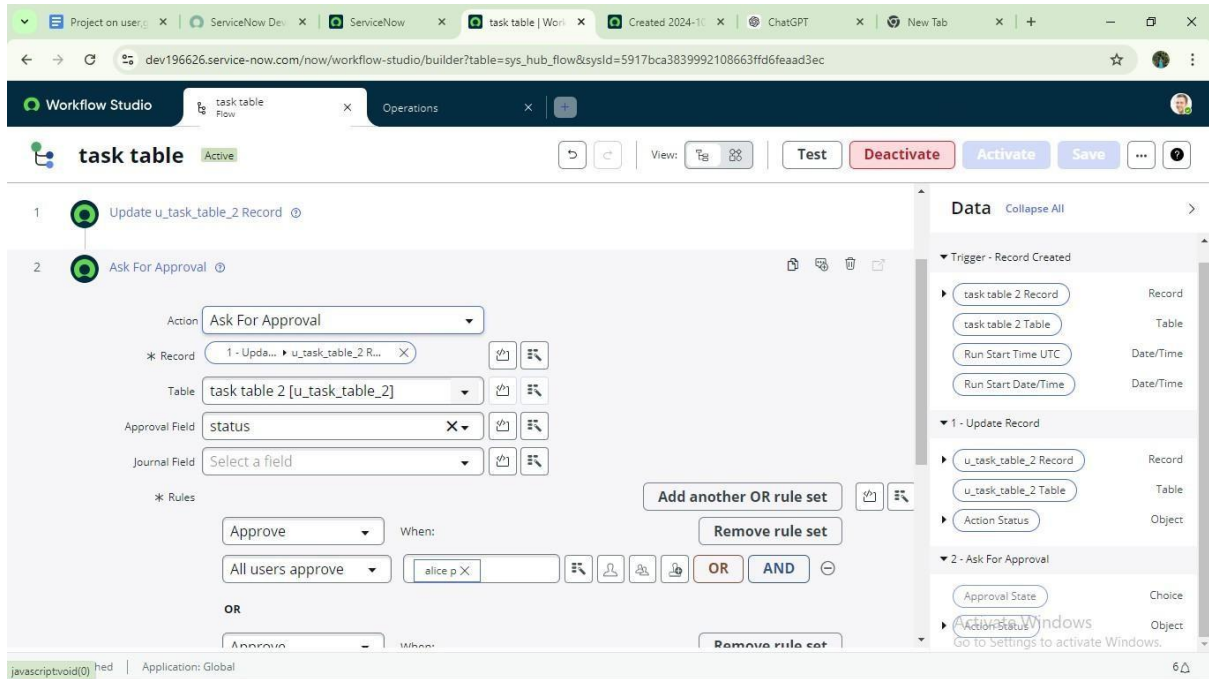
Next Step:

1. Click Add an Action.
2. Search for and select Update Records.
3. In the Record field, drag the appropriate data pills from the data navigator on the right side.
4. The Table will be auto-assigned.
5. Add the field Status and set its value to Completed.
6. Click Done to save the action.



Next Step:

1. Under Actions, click Add an Action.
2. Search for and select Ask for Approval.
3. In the Record field, drag the relevant data pills from the data navigator on the right side.
4. The Table will be auto-assigned.
5. Set the Approve Field to Status.
6. Assign Alice P as the approver.
7. Click Done to save the action.



The screenshot shows the ServiceNow Workflow Studio interface for a workflow named 'task table'. The workflow consists of two steps:

- Update u_task_table_2 Record
- Ask For Approval

The 'Ask For Approval' step is configured with the following details:

- Action: Ask For Approval
- Record: 1 - Update u_task_table_2 Record
- Table: task table 2 [u_task_table_2]
- Approval Field: status
- Journal Field: Select a field

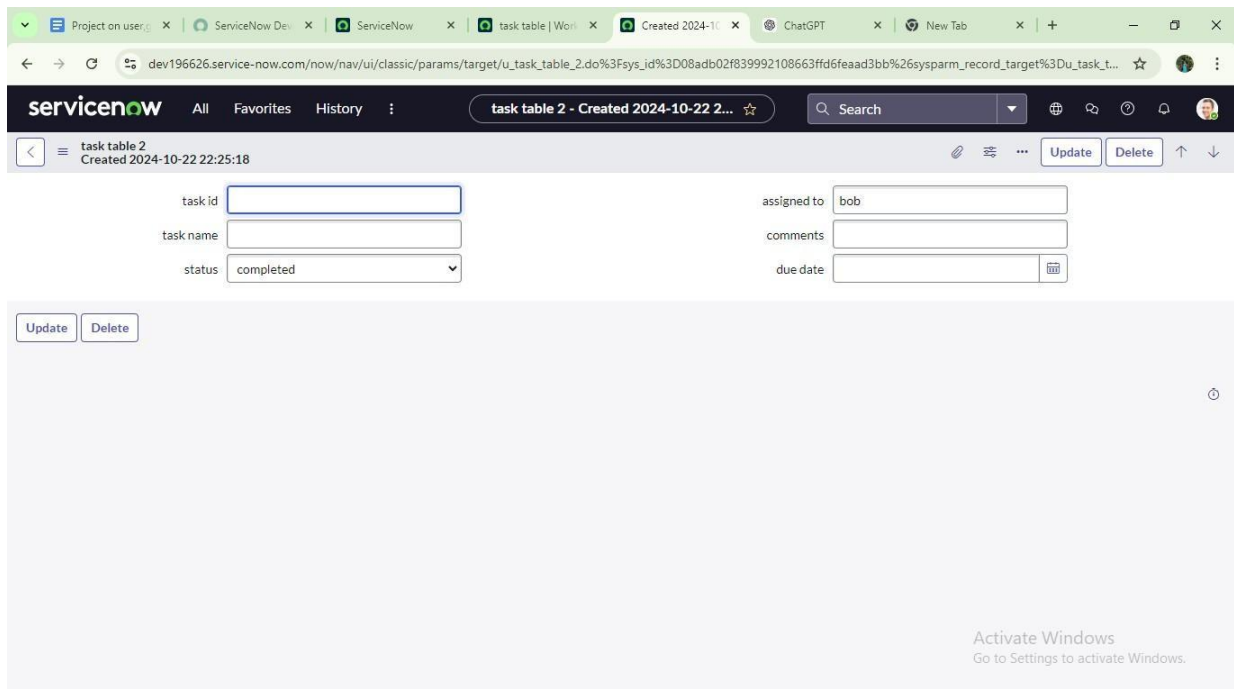
Rules are defined for the 'Ask For Approval' step:

- Rule 1: Approve (When: All users approve)
- Rule 2: (When: alice p X)

The right-hand pane shows the 'Data' section, which lists the data objects used in the workflow:

- Trigger - Record Created
 - task table 2 Record (Record)
 - task table 2 Table (Table)
 - Run Start Time UTC (Date/Time)
 - Run Start Date/Time (Date/Time)
- 1 - Update Record
 - u_task_table_2 Record (Record)
 - u_task_table_2 Table (Table)
 - Action Status (Object)
- 2 - Ask For Approval
 - Approval State (Choice)
 - Action Status (Object)

8. In the Application Navigator, search for Task Table.
9. Verify that the Status field is updated to Completed.

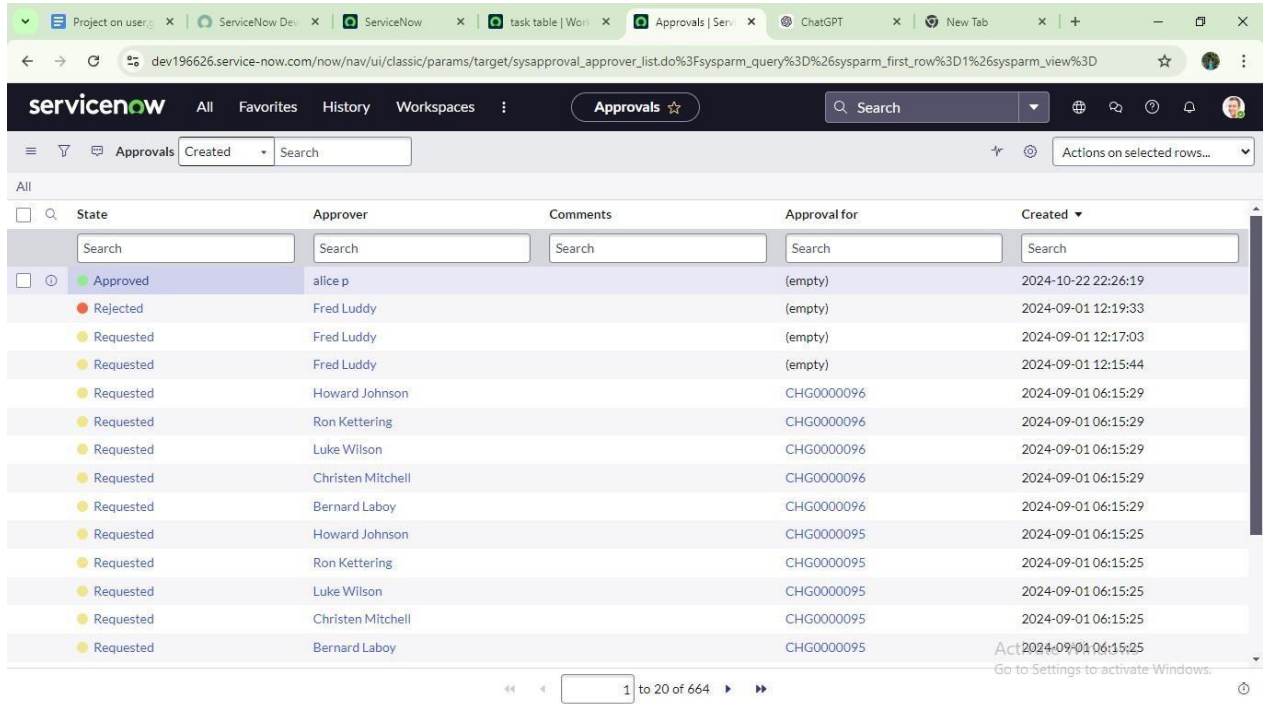


The screenshot shows the ServiceNow Application Navigator interface for the 'task table 2' record. The record details are as follows:

Field	Value
task id	
task name	
status	completed
assigned to	bob
comments	
due date	

The 'Update' and 'Delete' buttons are visible at the bottom left of the record details.

- 10. In the Application Navigator, search for My Approvals.**
- 11. Select My Approvals under Service Desk.**
- 12. When Alice P receives the approval request, right-click on the request and select Approve.**



The screenshot shows the ServiceNow interface for the 'Approvals' section. The table lists various approval requests with columns for State, Approver, Comments, Approval for, and Created. The first row is highlighted as 'Approved' for 'alice p'.

	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	Approved	alice p		(empty)	2024-10-22 22:26:19
<input type="checkbox"/>	Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
<input type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:17:03
<input type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
<input type="checkbox"/>	Requested	Howard Johnson		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Ron Kettering		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Luke Wilson		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Christen Mitchell		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Bernard Laboy		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Howard Johnson		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Ron Kettering		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Luke Wilson		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Christen Mitchell		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Bernard Laboy		CHG0000095	2024-09-01 06:15:25

Conclusion:

This documentation outlines the streamlined process for managing users, groups, roles, access controls, and automated workflows within ServiceNow. By implementing these steps, organizations can enhance security, improve operational efficiency, and ensure proper governance of application access and task management.