

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

**Team Id:** NM2025TMID15248

**Team Members: 04**

**Team Leader:** DEVADHARSAN J

**Team Member 1:** SANJAY R

**Team Member 2:** GURU MOORTHY R

**Team Member 3:**

**BALAJI T**

**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:** Creating users, group and roles to access a resource control

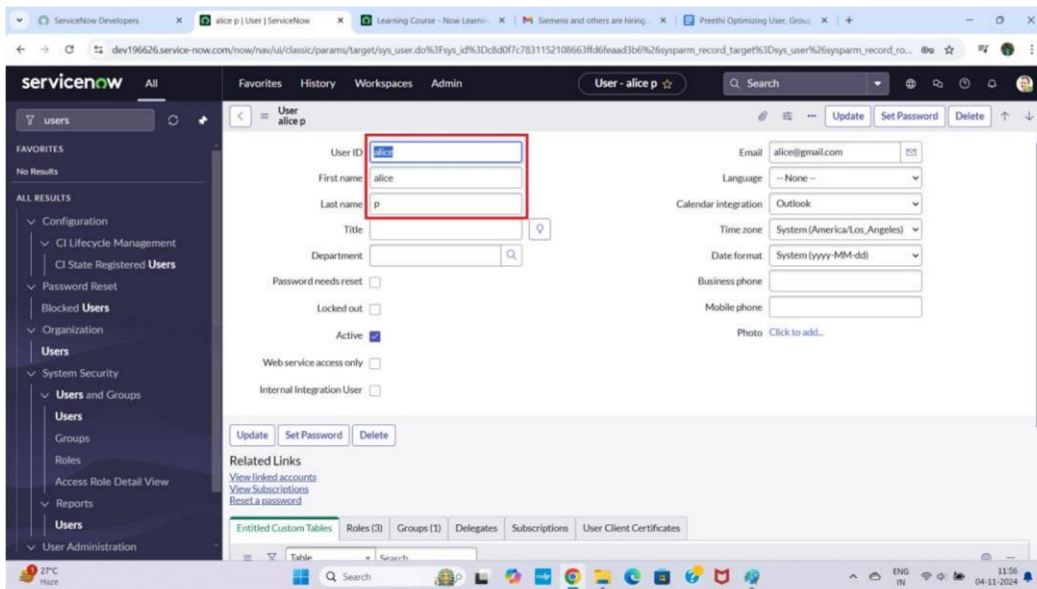
**Skills:** UiPath RPA, Tanzu Application Service

## 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



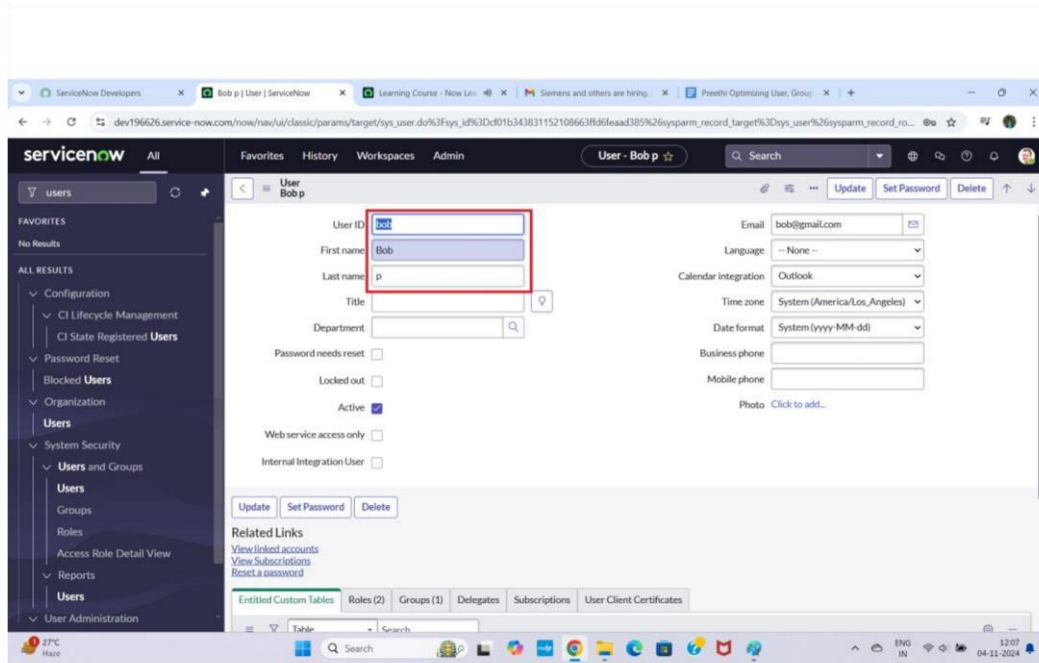
The screenshot shows the ServiceNow 'Users' page. The left sidebar contains a navigation menu with 'Users' selected under 'System Security'. The main content area displays the 'User - alice p' form. The form fields are as follows:

- User ID:  (highlighted with a red box)
- First name:
- Last name:
- Title:
- Department:
- Email:
- Language:
- Calendar integration:
- Time zone:
- Date format:
- Business phone:
- Mobile phone:
- Photo:
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

Buttons at the bottom of the form include 'Update', 'Set Password', and 'Delete'. Below the form, there are 'Related Links' and a table with columns: 'Entitled Custom Tables', 'Roles (3)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'.

#### Create one more user:

7. Create another user with the following details
8. Click on submit



The screenshot shows the ServiceNow 'User - Bob p' form. The 'User ID' field is highlighted with a red box. The form includes the following fields and options:

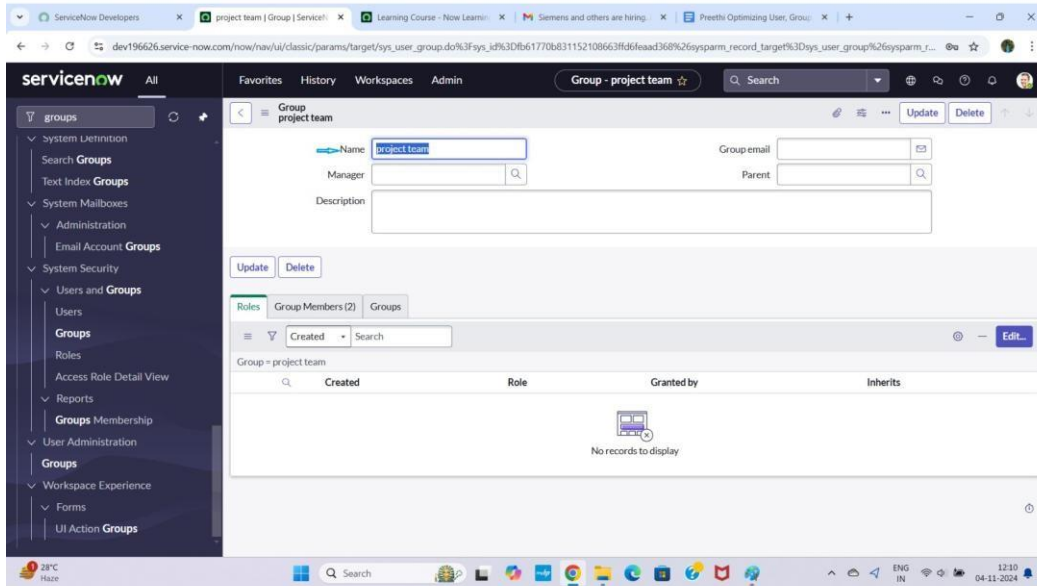
- User ID: bob
- First name: Bob
- Last name: p
- Title: (empty)
- Department: (empty)
- Email: bob@gmail.com
- Language: --None--
- Calendar integration: Outlook
- Time zone: System (America/Los\_Angeles)
- Date format: System (yyyy-MM-dd)
- Business phone: (empty)
- Mobile phone: (empty)
- Photo: Click to add...
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

Buttons at the bottom: Update, Set Password, Delete.

## Milestone 2 : Groups

### Activity 1: Create Groups

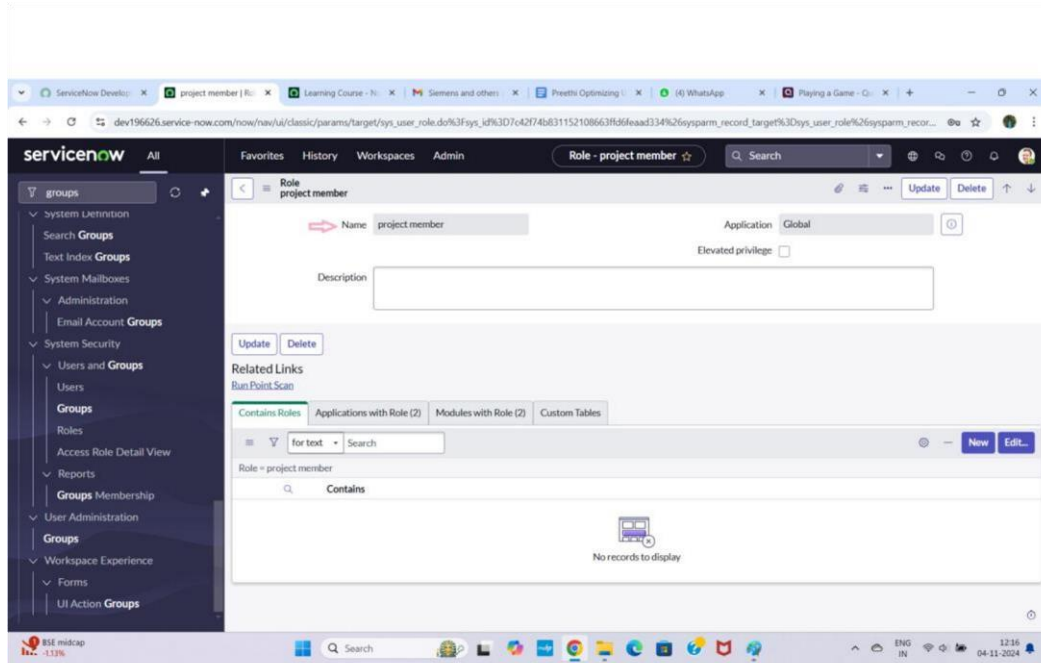
1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit



## Milestone 3 : Roles

### Activity 1: Create roles

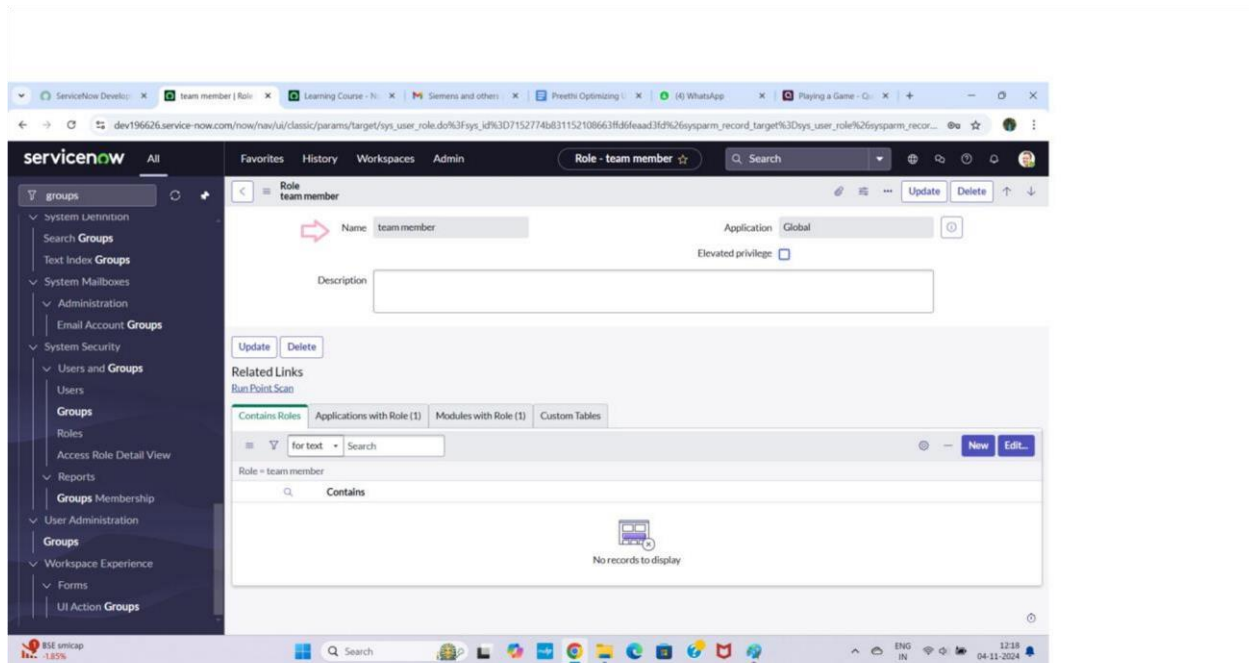
1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit



**Create one more role:**

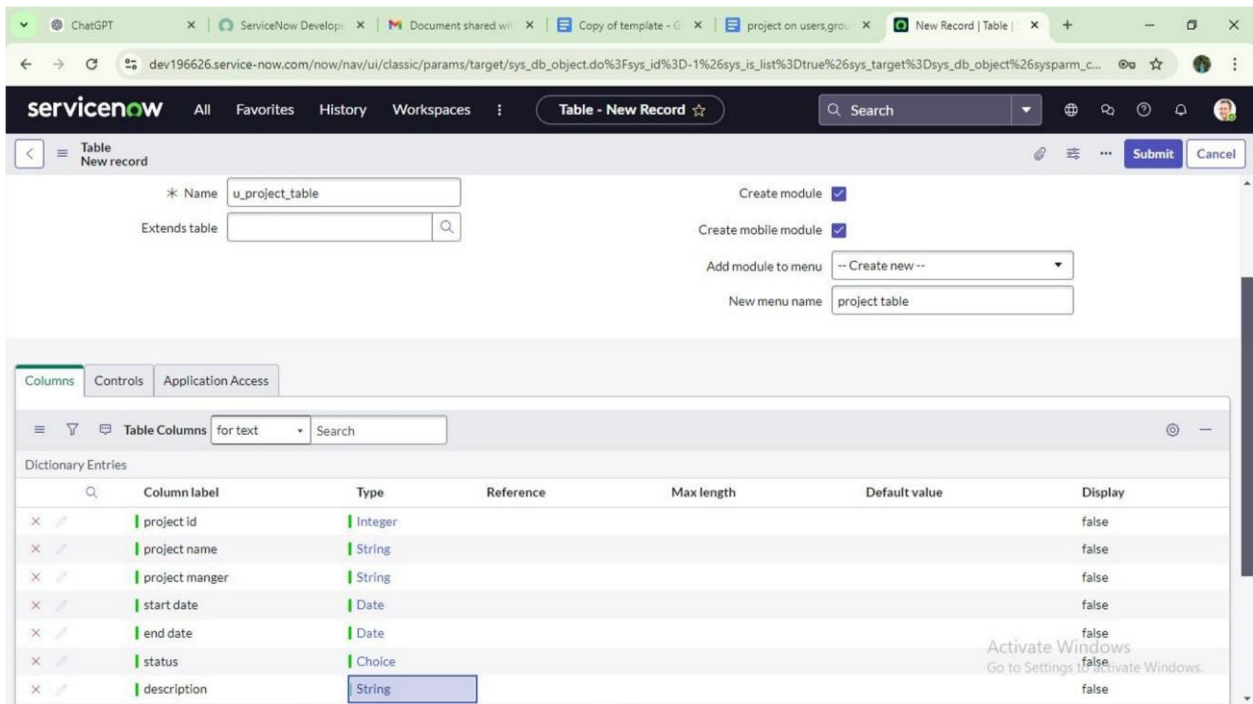
7. Create another role with the following details: Team member

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



**Table - New Record**

\* Name:

Extends table:

Create module: ☒

Create mobile module: ☒

Add module to menu:

New menu name:

**Columns** | Controls | Application Access

Table Columns for text Search

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

### Create one more table:

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

Copy of template - G x | project on users.gro... x | ServiceNow Develop... x | ServiceNow x | task table 2 | Table | x | ChatGPT x | +

dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3Df53ba8e3835992108663ffd6feaad365%26sysparm\_view%3D%26sysparm\_dom...

**servicenow** All Favorites History Workspaces Table - task table 2 Search

Table task table 2 Delete Update Delete All Records

Table Columns for text Search 1 to 6 of 6 New

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	Sys ID (GUID)	(empty)	32	40	false
	Created by	String	(empty)	40	40	false
	Created	Date/Time	(empty)	40	40	false
X /	task id	Integer				false
X /	task name	String				false
X /	assigned to	String				false
X /	due date	Date				false
X /	status	Choice				false
X /	comments	String				false
+	Insert a new row...					

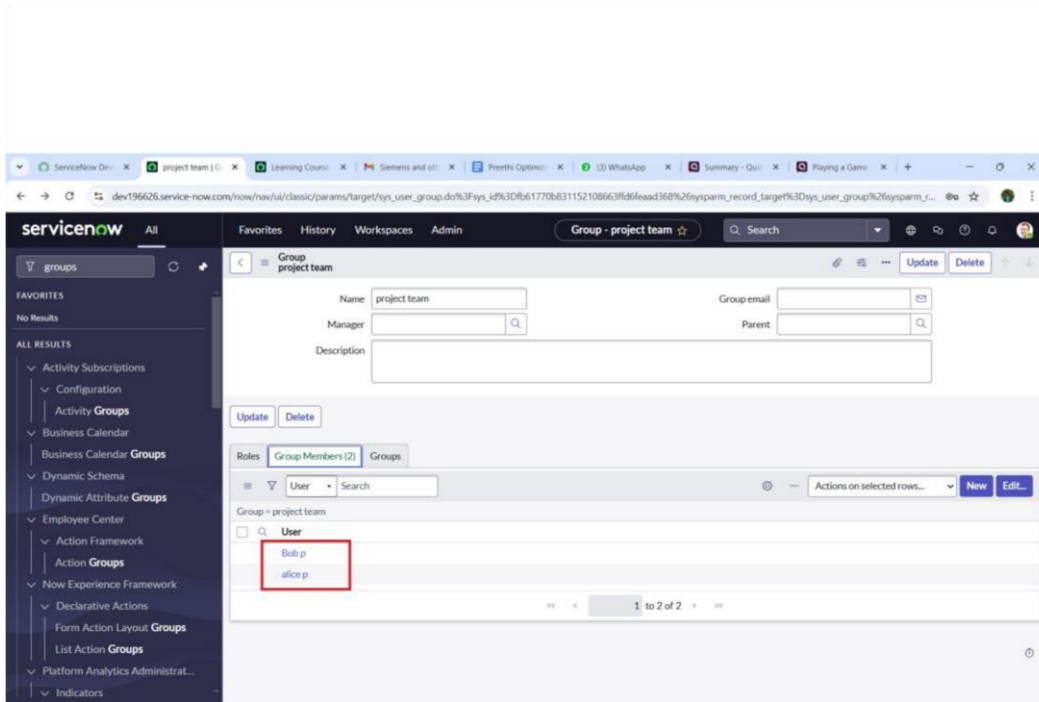
Activate Windows  
Go to Settings to activate Windows

Delete Update Delete All Records

## 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

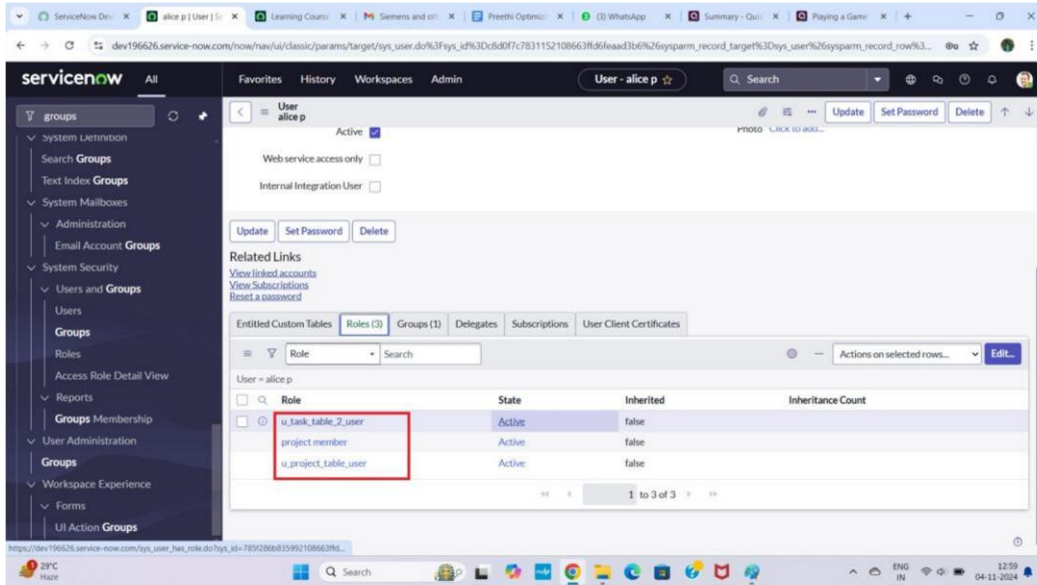


## Milestone 6 : Assign roles to users

### Activity 1: Assign roles to alice user

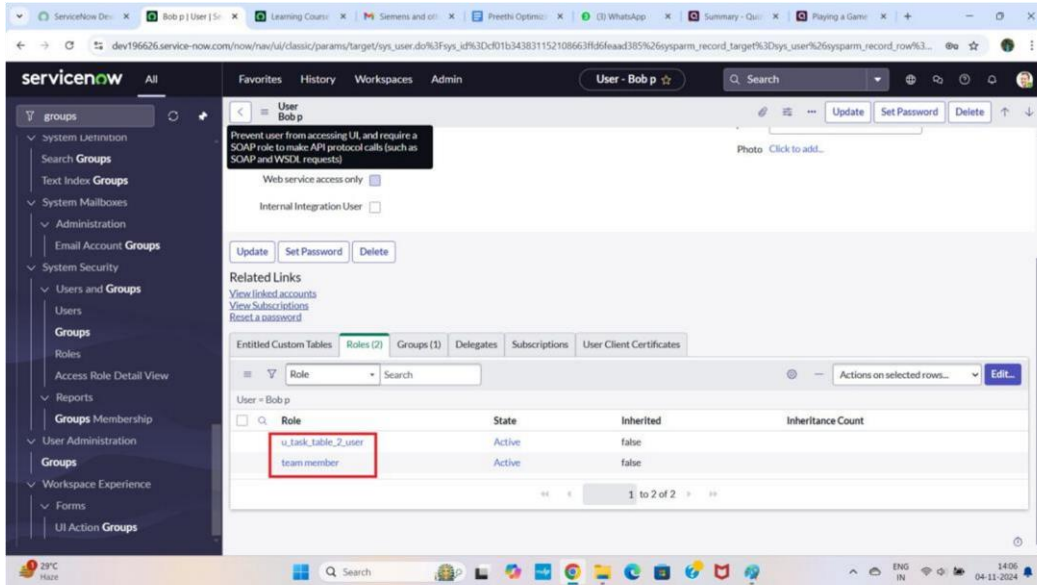
1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user
4. Under project manager
5. Click on edit
6. Select project member and save
7. click on edit add u\_project\_table role and u\_task\_table role
8. click on save and update the form.





## 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 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

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 project table Application Global 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 Custom Applications  

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

Title task table 2 Application Global 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 Custom Applications  


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

Hint

Description

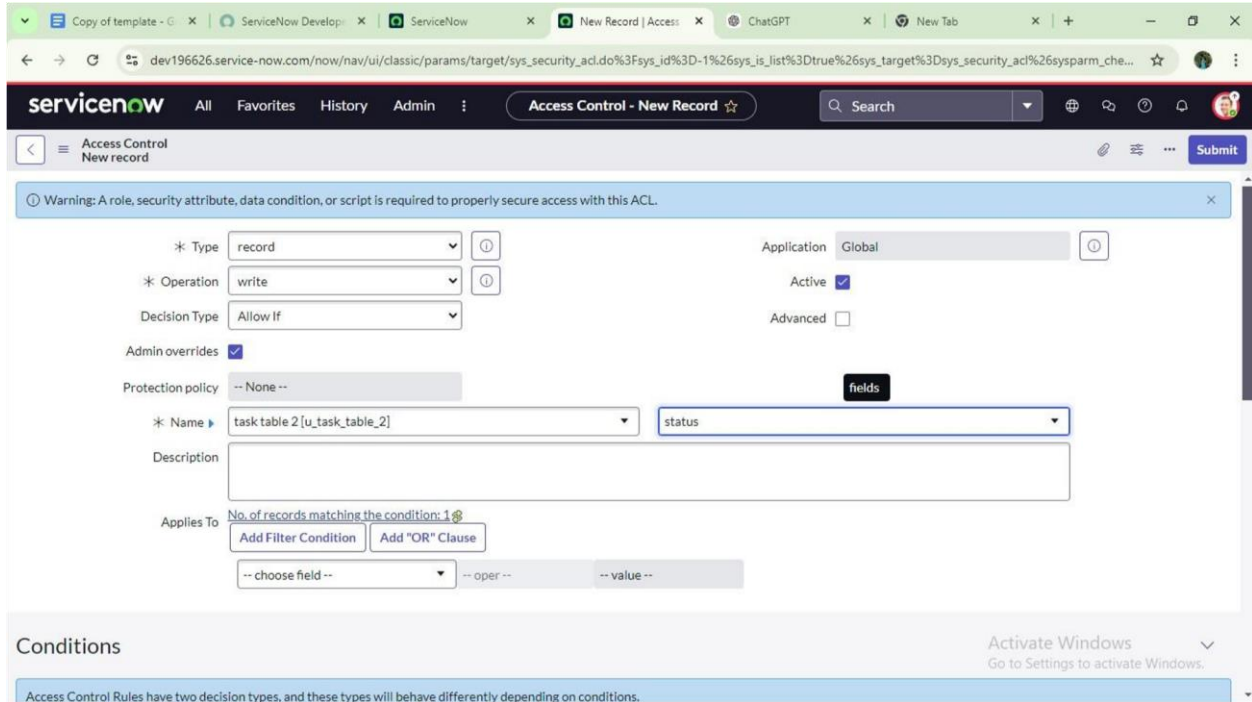
Update Delete

Activate Windows  
Go to Settings to activate Windows.

Modules Order Search  Actions on selected rows... New

## 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, or script is required to properly secure access with this ACL.

\* Type: record

\* Operation: write

Decision Type: Allow If

Admin overrides: ☒

Protection policy: -- None --

\* Name: task table 2 [u\_task\_table\_2]

Description:

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

Add Filter Condition Add "OR" Clause

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

Conditions

Activate Windows  
Go to Settings to activate Windows.

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

dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_security\_acl\_list.do%3Fsysparm\_query%3Dsys\_created\_onONToday%40javascript%3Ags.beginningOfToday...

servicenow All Favorites History Workspaces Access Controls Search

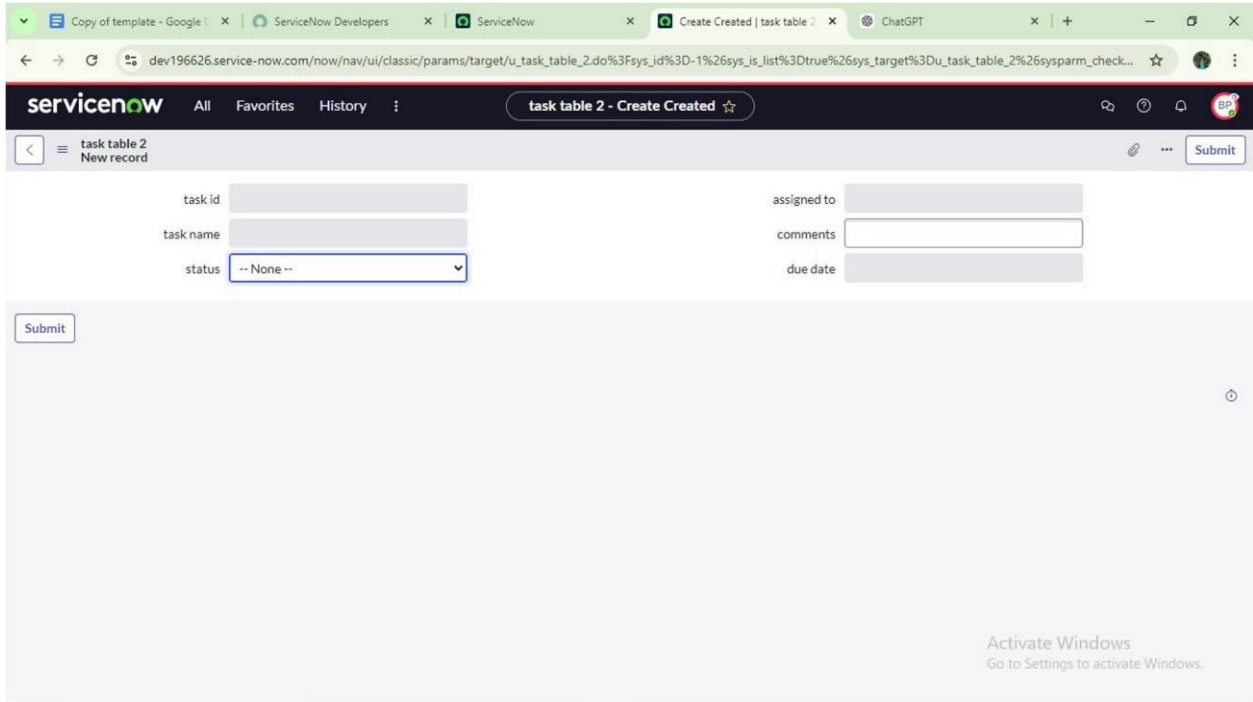
Access Controls Name Search Actions on selected rows... New

All > Created on Today

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

1 to 20 of 23

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



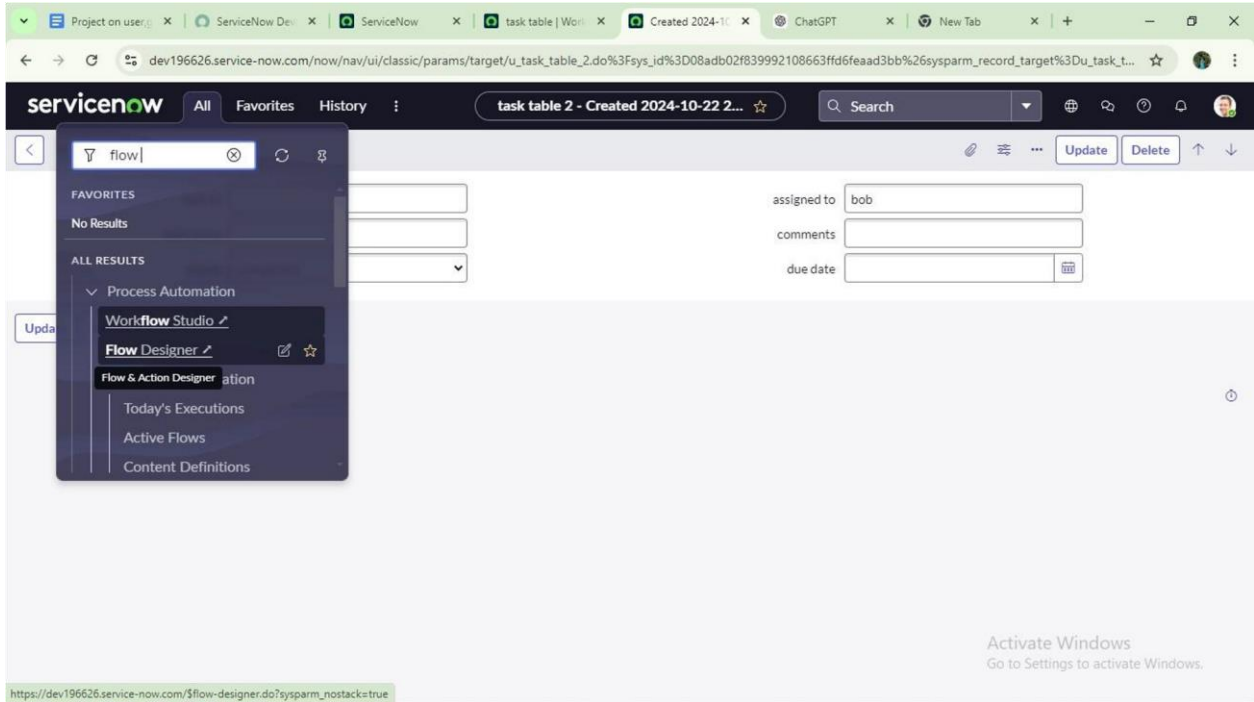
The screenshot shows a web browser window with multiple tabs. The active tab is 'Create Created | task table 2'. The URL is 'dev196626.service-now.com/now/nav/ui/classic/params/target/u\_task\_table\_2.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Du\_task\_table\_2%26sysparm\_check...'. The ServiceNow header is visible with 'servicenow' logo and navigation links: 'All', 'Favorites', 'History'. The main title is 'task table 2 - Create Created'. Below the title, there's a breadcrumb 'task table 2' and a 'New record' link. The form contains several input fields: 'task id', 'task name', 'status' (a dropdown menu currently showing '-- None --'), 'assigned to', 'comments', and 'due date'. A 'Submit' button is located at the bottom left of the form area. At the bottom right of the page, there is a 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.

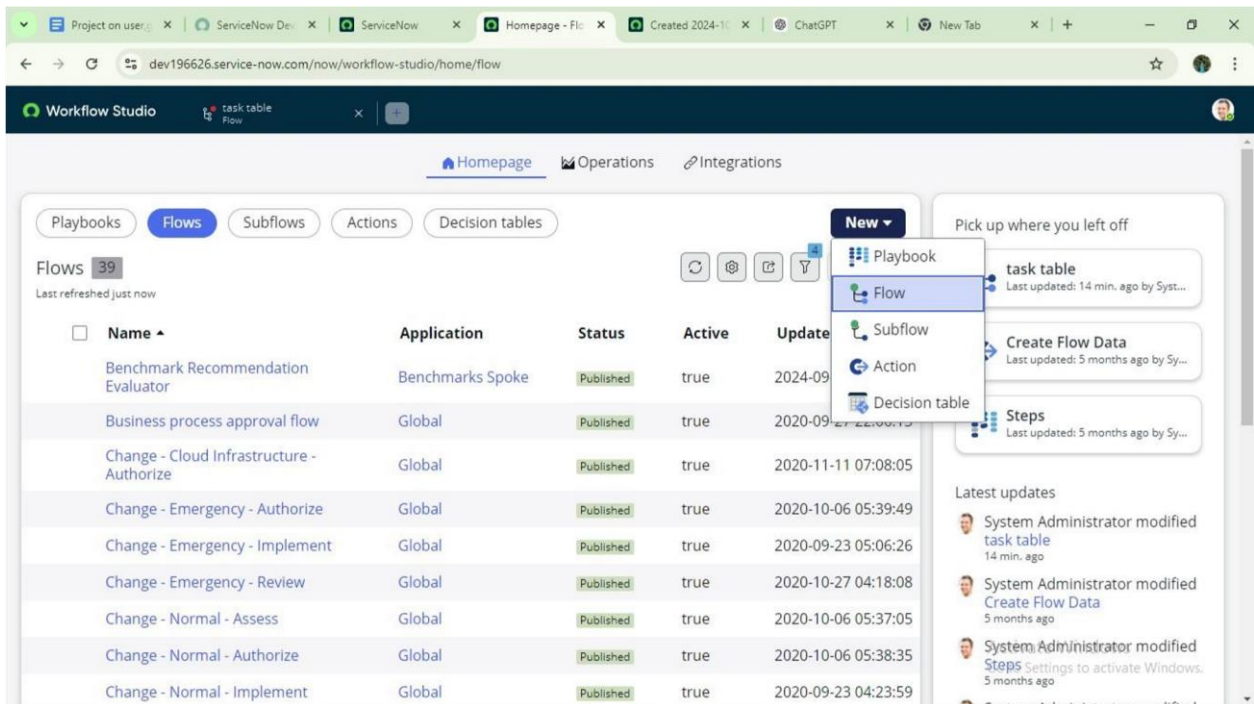




The screenshot shows the ServiceNow interface with a search bar containing 'flow'. A dropdown menu is visible with the following options:

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

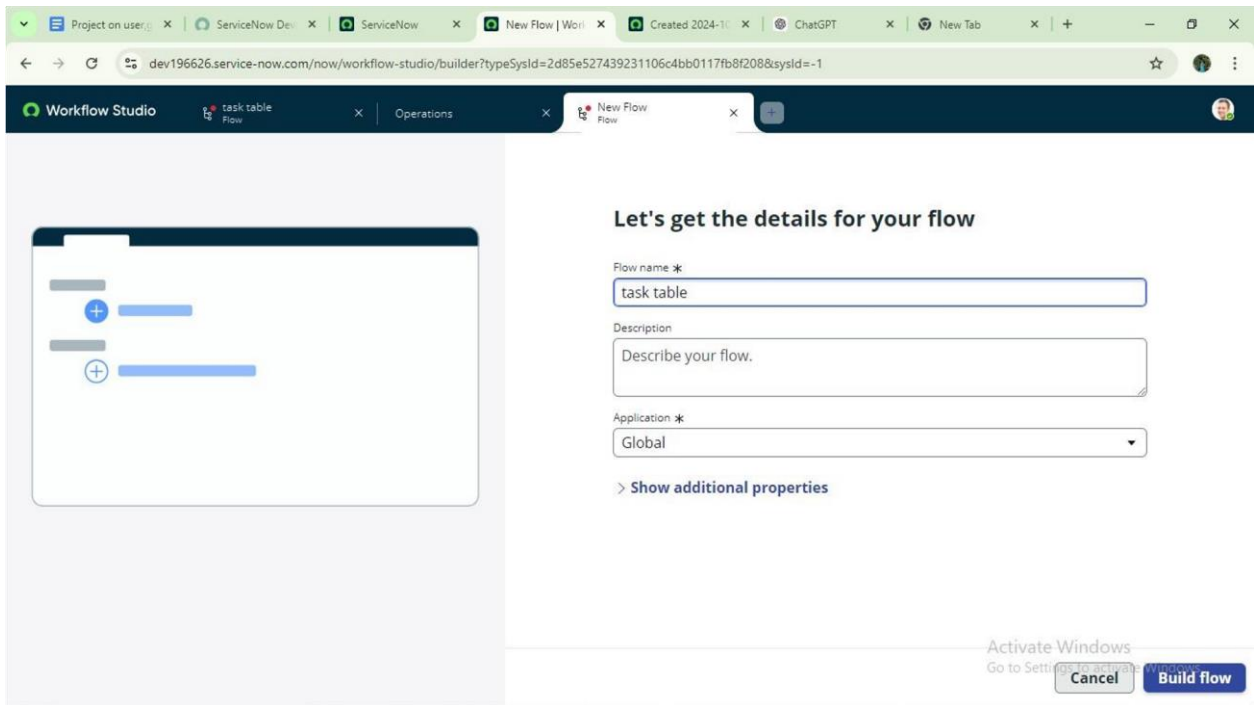
The background shows a form with fields for 'assigned to' (bob), 'comments', and 'due date'. The URL bar indicates the page is 'task table 2 - Created 2024-10-22 2...'.



The screenshot shows the ServiceNow Workflow Studio interface. The 'Flows' tab is selected, and a list of flows is displayed. A 'New' dropdown menu is open, showing options for 'Playbook', 'Flow', 'Subflow', 'Action', and 'Decision table'. The 'Flow' option is highlighted.

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

The right sidebar shows a 'Pick up where you left off' section with a 'task table' entry (last updated 14 min. ago by Syst...) and a 'Create Flow Data' entry (last updated 5 months ago by Sy...). Below this is a 'Latest updates' section with three entries from the System Administrator.



Workflow Studio

task table Flow

Operations

New Flow Flow

### Let's get the details for your flow

Flow name \*  
task table

Description  
Describe your flow.

Application \*  
Global

> Show additional properties

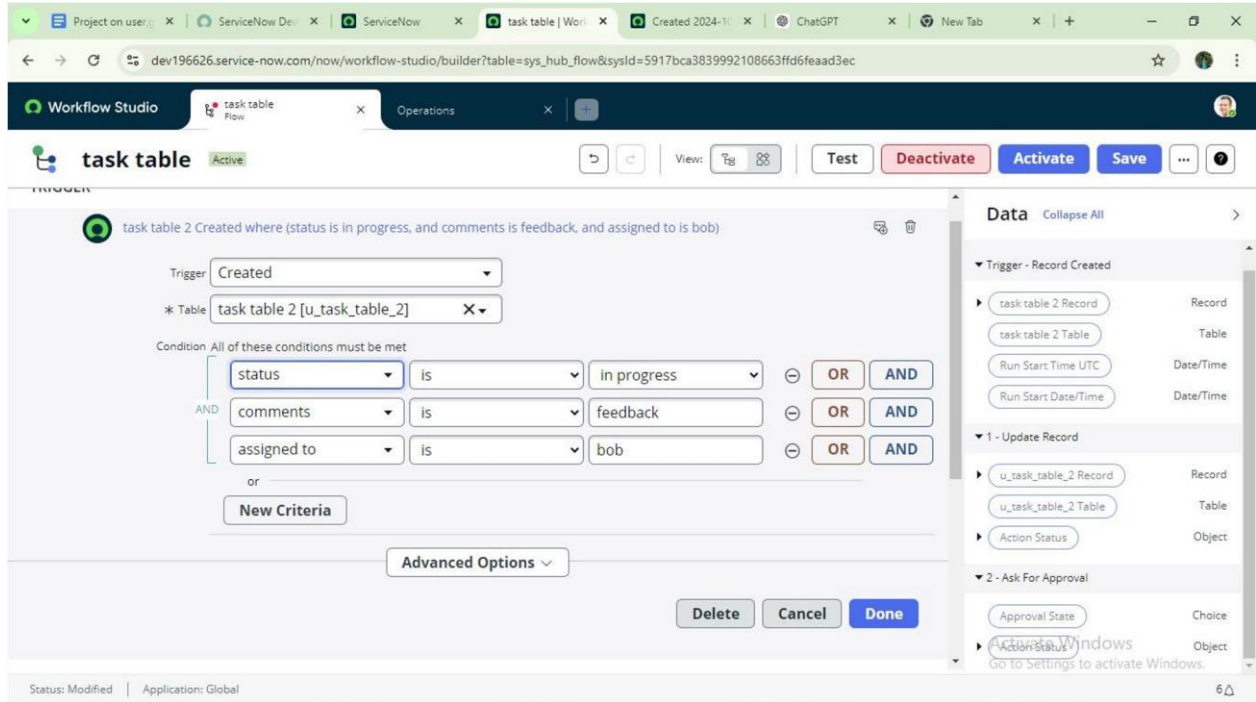
Activate Windows  
Go to Settings to activate Windows

Cancel 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.

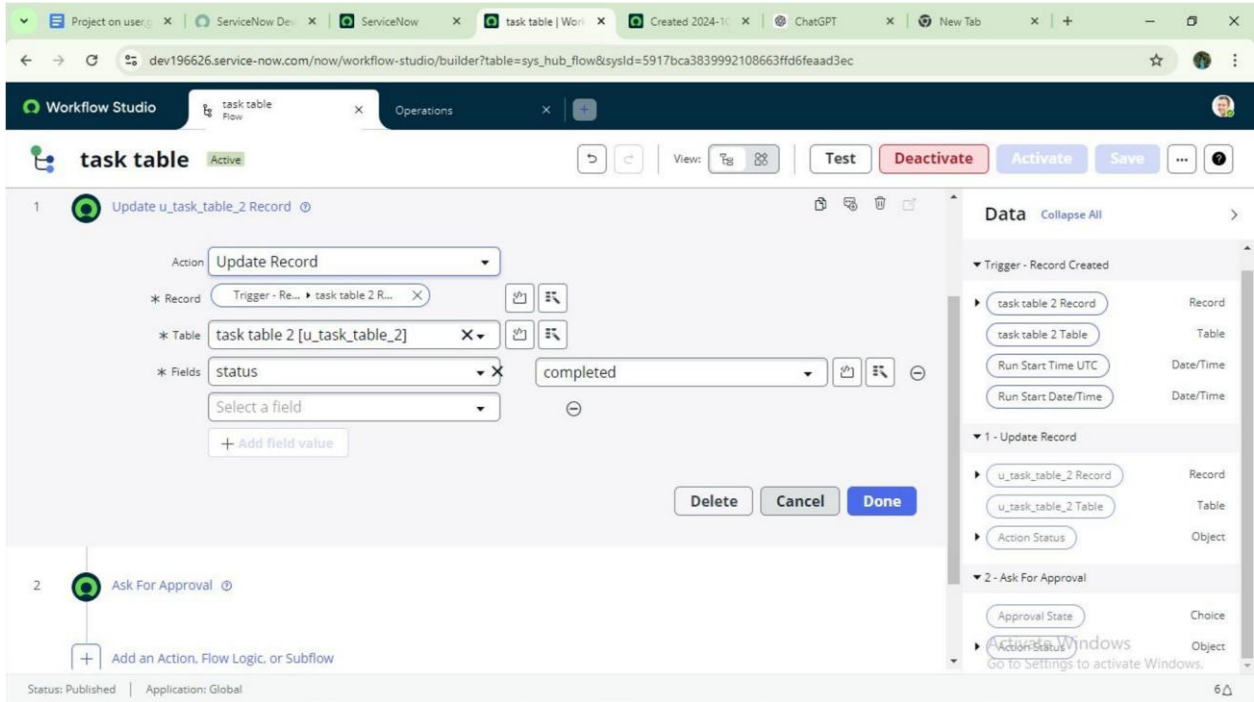




The screenshot shows the ServiceNow Workflow Studio interface. The main configuration area is for a trigger named "task table 2". The trigger is set to "Created" and is associated with the table "task table 2 [u\_task\_table\_2]". The condition is defined as "All of these conditions must be met" with three criteria: "status" is "in progress", "comments" is "feedback", and "assigned to" is "bob". The trigger is currently "Active". On the right, the "Data" panel shows the fields available for the trigger, including "task table 2 Record", "task table 2 Table", "Run Start Time UTC", "Run Start Date/Time", "1 - Update Record", "u\_task\_table\_2 Record", "u\_task\_table\_2 Table", "Action Status", "2 - Ask For Approval", "Approval State", and "Action Status".

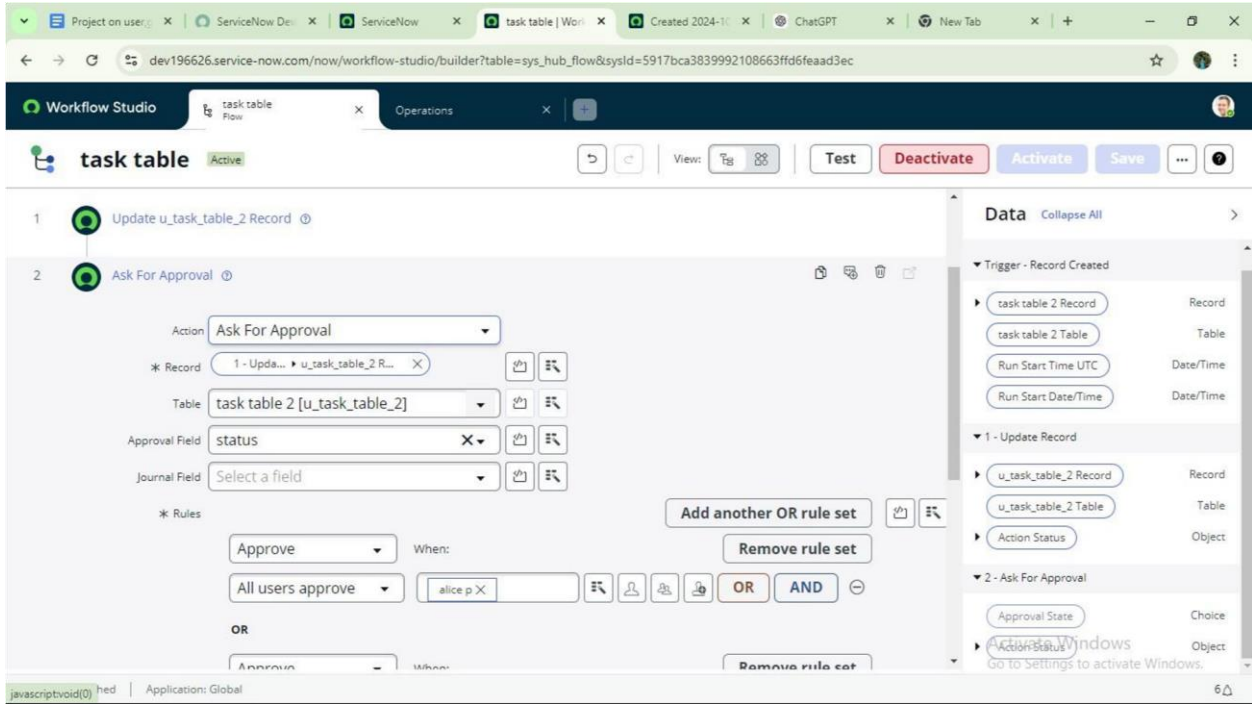
## Next step:

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.



Workflow Studio interface showing the configuration for the 'task table' workflow. The workflow consists of two steps:

- Update u\_task\_table\_2 Record
- Ask For Approval

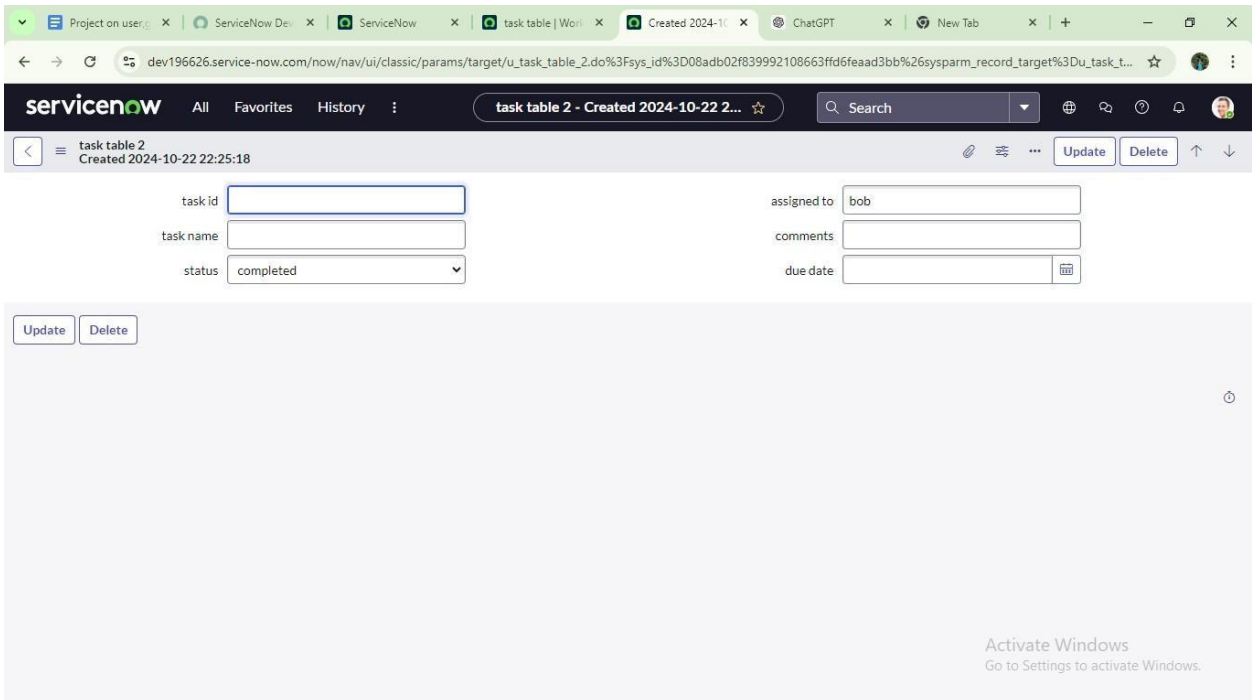
The 'Ask For Approval' step is configured with the following details:

- 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: Approve (When: All users approve, Condition: alice p X)

The right sidebar shows the 'Data' pane with a tree view of the workflow steps and their associated data objects.

9.Go to application navigator search for task table.

10.It status field is updated to completed

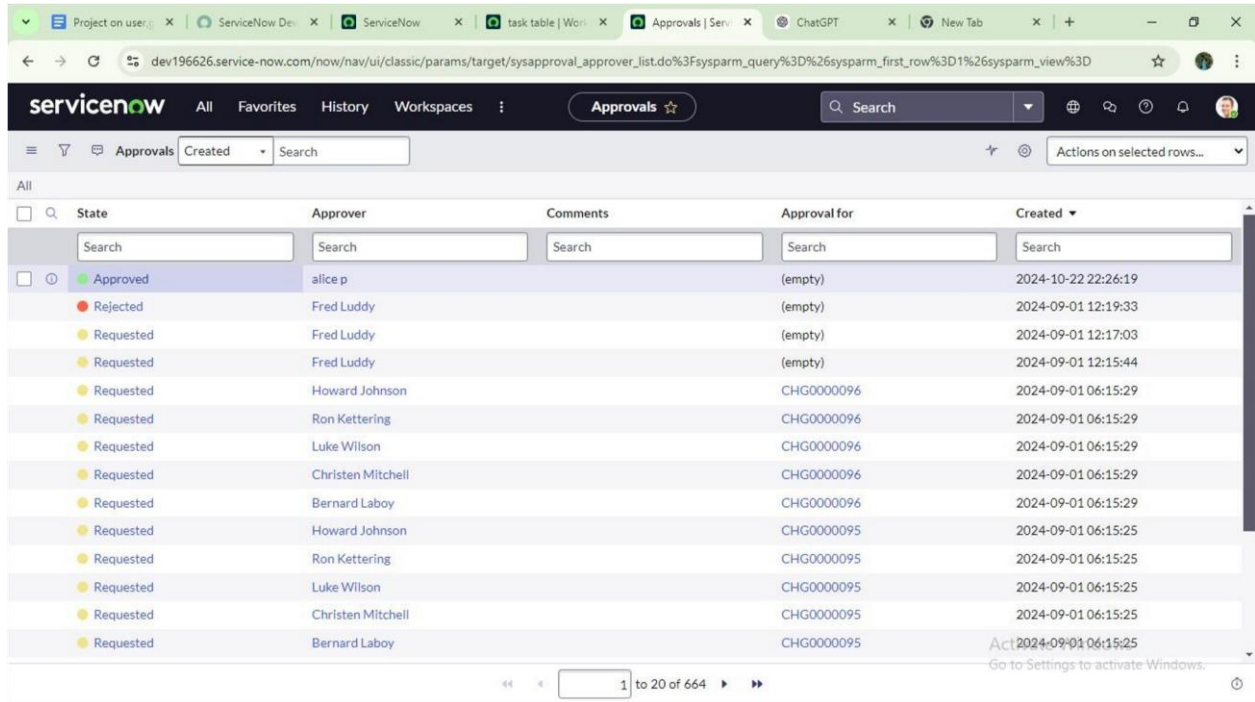


ServiceNow application navigator showing the 'task table 2' record. The record details are as follows:

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

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

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 the ServiceNow 'Approvals' page. The table lists various approval requests with columns for State, Approver, Comments, Approval for, and Created. The first row is highlighted as 'Approved' by 'alice p' on '2024-10-22 22:26:19'. Other rows show 'Requested' and 'Rejected' states for various approvers like Fred Luddy, Howard Johnson, Ron Kettering, Luke Wilson, Christen Mitchell, and Bernard Laboy.

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.

