

TITLE

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

**TEAM ID** :NM2025TMID18015

**TEAM SIZE** :4

**TEAM LEADER** :SUNDARAM.M

**TEAM MEMBER 1** :VISHALI.K

**TEAM MEMBER 2** :JANARTHANAN.R

**TEAM MEMBER 3** :PRITHIVIRAJAN.S

## 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 :

The objective of this project is to streamline user, group, and role management in ServiceNow for improved security and efficiency. It aims to implement Access Control Lists (ACLs) to enforce role-based permissions and protect sensitive data. Automated workflows will be designed to handle onboarding, role assignment, and deprovisioning processes. The project focuses on reducing manual effort, minimizing errors, and ensuring compliance with organizational policies. Ultimately, it seeks to deliver a scalable and secure access management framework.

## Skills :

This project enhances skills in configuring User, Group, and Role management within ServiceNow. It develops expertise in creating and applying Access Control Lists (ACLs) for secure data access.

Hands-on experience is gained in designing automated workflows for user provisioning and approvals.

It strengthens problem-solving and analytical skills for optimizing security and efficiency.

The project also builds documentation and project management skills for effective implementation.

## Optimizing User, Group, and Role

### Management with Access Control and Workflows

#### Optimizing User, Group, And Role Management With Access Control And Workflows

+ Users

+ Groups

+ Roles

+ Table

+ Assign Users To Groups

+ Assign Roles To Users

+ Application Access

+ Access Control List

+ Flow

Conclusion

## Optimizing User, Group, And Role Management With Access Control And Workflows

### **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.

# USER

## STEPS :

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 web interface for creating a new user. The browser address bar shows the URL: `dev196626.service-now.com/now/nav/ui/classic/params/target/sys_user.do?sys_id=63Dfd3f7c7031152108663ff6f6ead3b6%2fsysparm_record_target%3Dsys_user%2fsysparm_record_no...`. The left sidebar contains a navigation menu with categories like Configuration, Lifecycle Management, Password Reset, Organization, System Security, and User Administration. The 'Users' option under System Security is selected. The main content area displays the 'User - alice p' form. A red box highlights the 'User ID' field, which contains the text '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, checked), 'Web service access only' (checkbox), and 'Internal Integration User' (checkbox). At the bottom of the form are buttons for 'Update', 'Set Password', and 'Delete'. Below the form, there are 'Related Links' (View linked accounts, View Subscriptions, Reset a password) and a table with columns: Entitled Custom Tables, Roles (0), 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 Administration interface. The left sidebar contains a navigation menu with categories like Configuration, Password Reset, Organization, System Security, Reports, and User Administration. The main content area displays the details for a user named "Bob p". The "User ID" field is highlighted with a red box. The "First name" field contains "Bob" and the "Last name" field contains "p". Other fields include "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...). There are checkboxes for "Password needs reset", "Locked out", "Active" (checked), "Web service access only", and "Internal Integration User". At the bottom, there are buttons for "Update", "Set Password", and "Delete", and a "Related Links" section with links to "View linked accounts", "View Subscriptions", and "Reset a password".

ServiceNow

Users

Configuration

CI Lifecycle Management

CI State Registered Users

Password Reset

Blocked Users

Organization

Users

System Security

Users and Groups

Users

Groups

Roles

Access Role Detail View

Reports

Users

User Administration

User - Bob p

Update Set Password Delete

User ID: bob

First name: Bob

Last name: p

Title:

Department:

Password needs reset: ☐

Locked out: ☐

Active: ☒

Web service access only: ☐

Internal Integration User: ☐

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...

Update Set Password Delete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

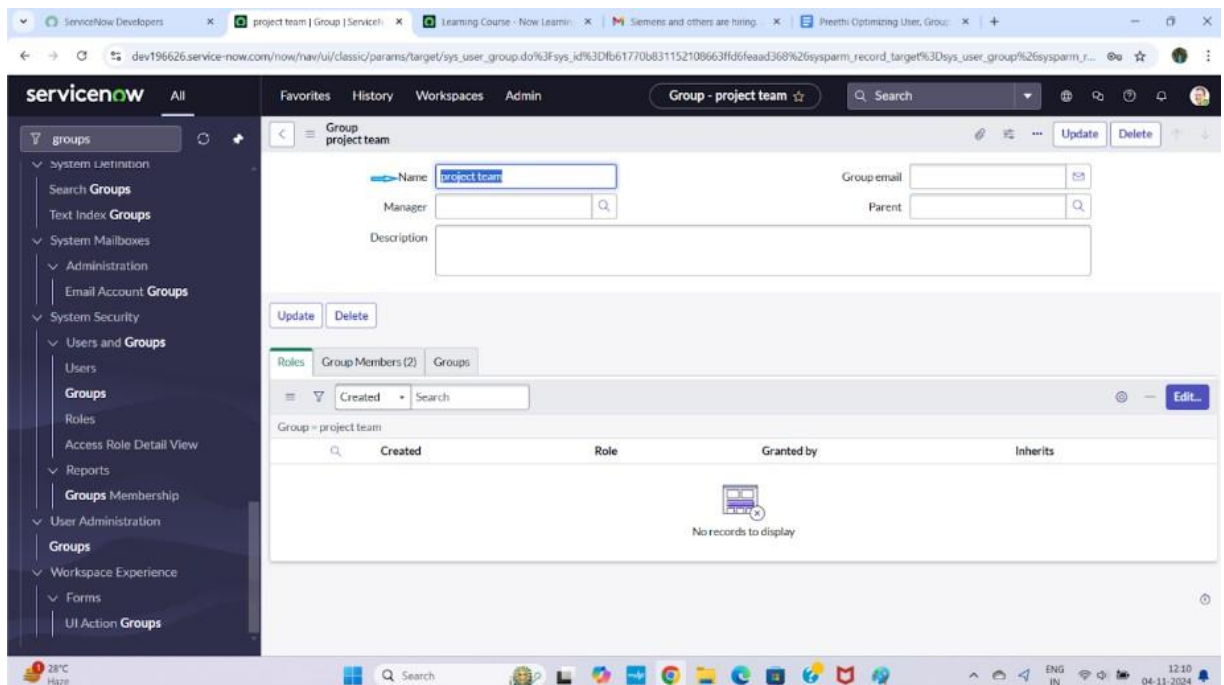
[Reset a password](#)

Entitled Custom Tables Roles (2) Groups (1) Delegates Subscriptions User Client Certificates

# GROUPS

## Create Groups

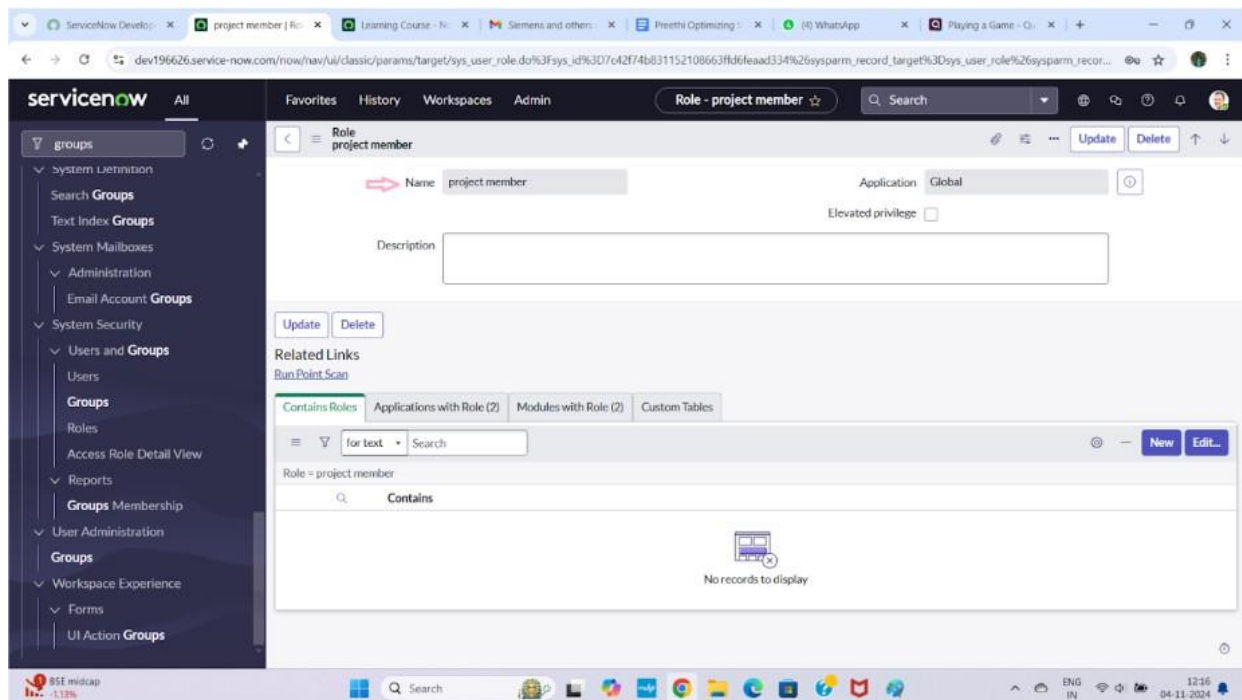
1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit



# ROLES

## 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



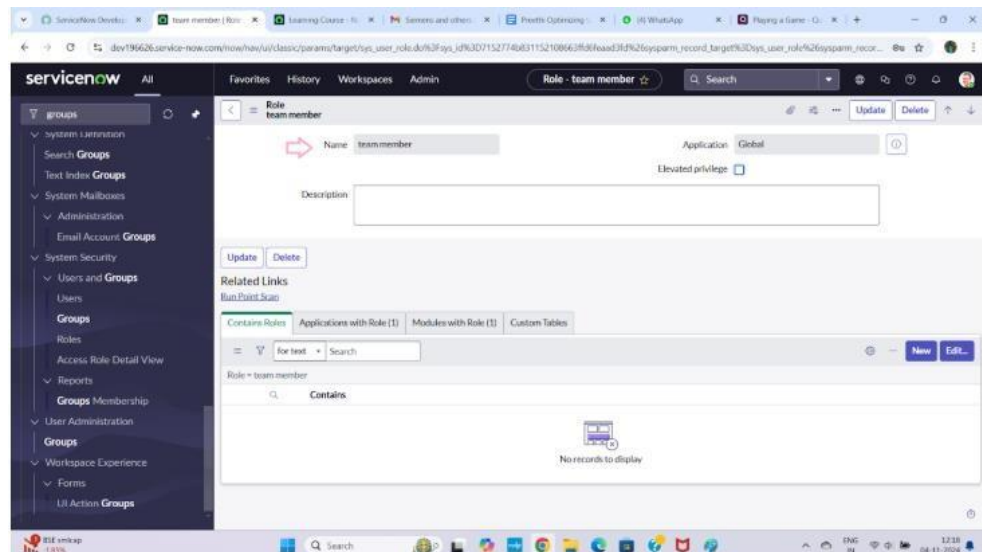
## Create one more role:

7. Create another role with the following details : Team member
8. Click on submit

# TABLE

## 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



dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D-1%26sys\_list%3Dtrue%26sys\_target%3Days\_db\_object%26sysparm\_c...

servicenow All Favorites History Workspaces Table - New Record Search

Table New record Submit Cancel

Name: u\_project\_table

Extends table:

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name project table

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

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

Activate Windows  
Go to Settings to activate Windows.

Create one more table:

9. Create another table as: task table 2 and fill with following details.

10. Click on submit.

dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3Df53ba8e3035992108663ff6fead365%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

Dictionary Entries

	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
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

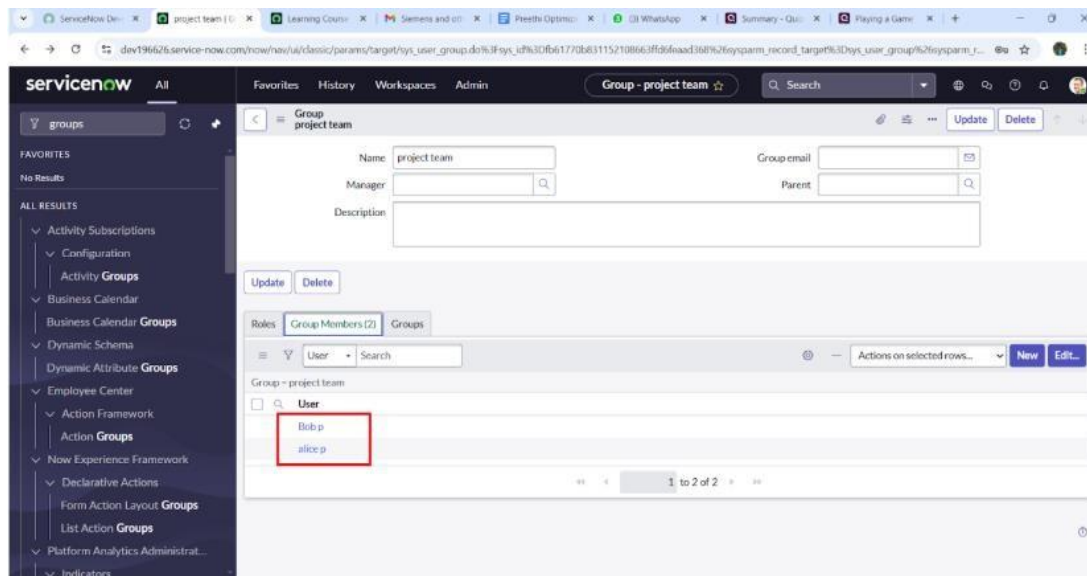
Insert a new row...

Activate Windows  
Go to Settings to activate Windows.

# ASSIGN USER TO GROUPS

## Assign users to project team group

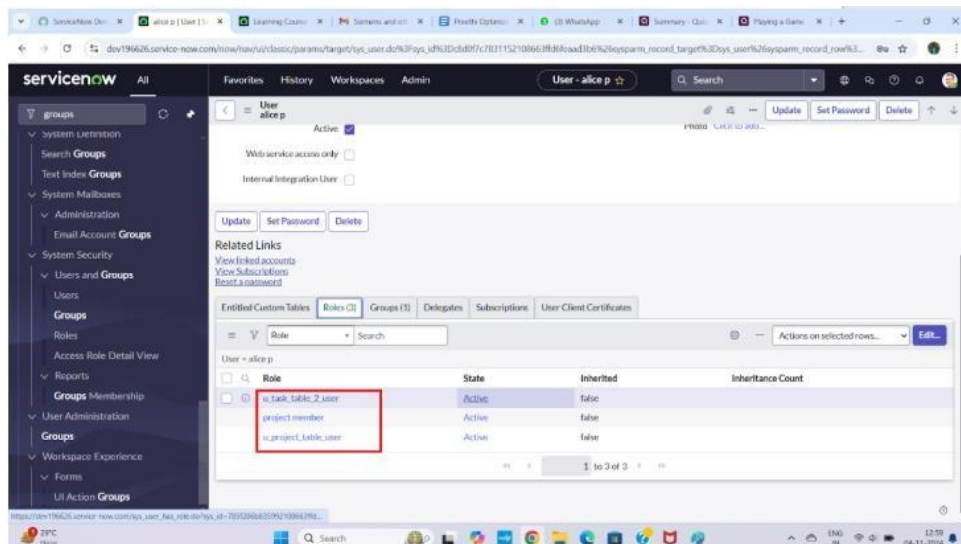
1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



# ASSIGN ROLES TO USERS

## 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.



## 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
7. We can see the task table2.

The screenshot shows the ServiceNow user profile page for 'User - Bob p'. The page includes a sidebar with navigation options like 'groups', 'System Definition', 'System Mailboxes', 'Administration', 'System Security', 'Users and Groups', 'Reports', 'Groups Membership', 'User Administration', 'Workspace Experience', 'Forms', and 'UI Action Groups'. The main content area displays the user's profile, including a warning about SOAP role access, and a table of roles assigned to the user. The role 'u\_task\_table\_2\_user' is highlighted with a red box, and its role is 'team member'.

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

# APPLICATION ACCESS

## 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

The screenshot shows the ServiceNow 'Application Menu - project table' configuration page. The browser address bar shows the URL: dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_app\_application.do%3Fsys\_id%3D9705334f831152108663ffd6feaad362. The page title is 'Application Menu - project table'. Below the title bar, there is a description: '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](#)'. The form contains several fields: 'Title' (project table), 'Application' (Global), 'Active' (checked), 'Roles' (project member), 'Category' (Custom Applications), 'Hint' (empty), and 'Description' (empty). At the bottom, there are 'Update' and 'Delete' buttons. A watermark 'Activate Windows' is visible in the bottom right corner.

Copy of template - Google Doc x project on users groups roles: x ServiceNow Developers x project table | Application Men x +

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.

Copy of template - Google | ServiceNow Developers | project table | Application M | task table 2 | Application M | ChatGPT

dev196626.servicenow.com/now/nav/ui/classic/params/target/sys\_app\_application.do%3Fsys\_id%3D114bece3835992108663ffd6fead3dc

servicenowAllFavoritesHistoryAdminApplication Menu - task table 2Search

Application Menu  
task table 2

Application Group

Active

UpdateDelete

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

Rolesu\_task\_table\_2\_user, project member, team member

Specifies the menu category, which defines the navigation menu style. The default value is Custom Applications.

CategoryCustom Applications

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

Hint

Description

UpdateDelete

Activate WindowsGo to Settings to activate Windows. Actions on selected rows...New

# ACCESS CONTROL LIST

## 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

The screenshot shows the 'Access Control - New Record' form in the ServiceNow interface. The browser tabs include 'Copy of template', 'ServiceNow Develop', 'ServiceNow', 'New Record | Access', 'ChatGPT', and 'New Tab'. The URL is 'dev196626.service-now.com/now/nav/ui/classic/params/target/sys\_security\_acl.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Dsys\_security\_acl%26sysparm\_che...'. The form has a warning banner: 'Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL.' The form fields are as follows:

- \* Type: record
- \* Operation: write
- Decision Type: Allow If
- Admin overrides: ☒
- Application: Global
- Active: ☒
- Advanced: ☐
- Protection policy: -- None --
- \* Name: task table 2 (u\_task\_table\_2)
- status: status
- Description: (empty text area)
- Applies To: No. of records matching the condition: 1
- Buttons: Add Filter Condition, Add "OR" Clause
- Fields: choose field --, oper --, value --

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 Actions on selected rows...

All > Created on Today

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

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

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...

servicenow All Favorites History task table 2 - Create Created

task table 2 New record Submit

task id assigned to

task name comments

status -- None -- due date

Submit

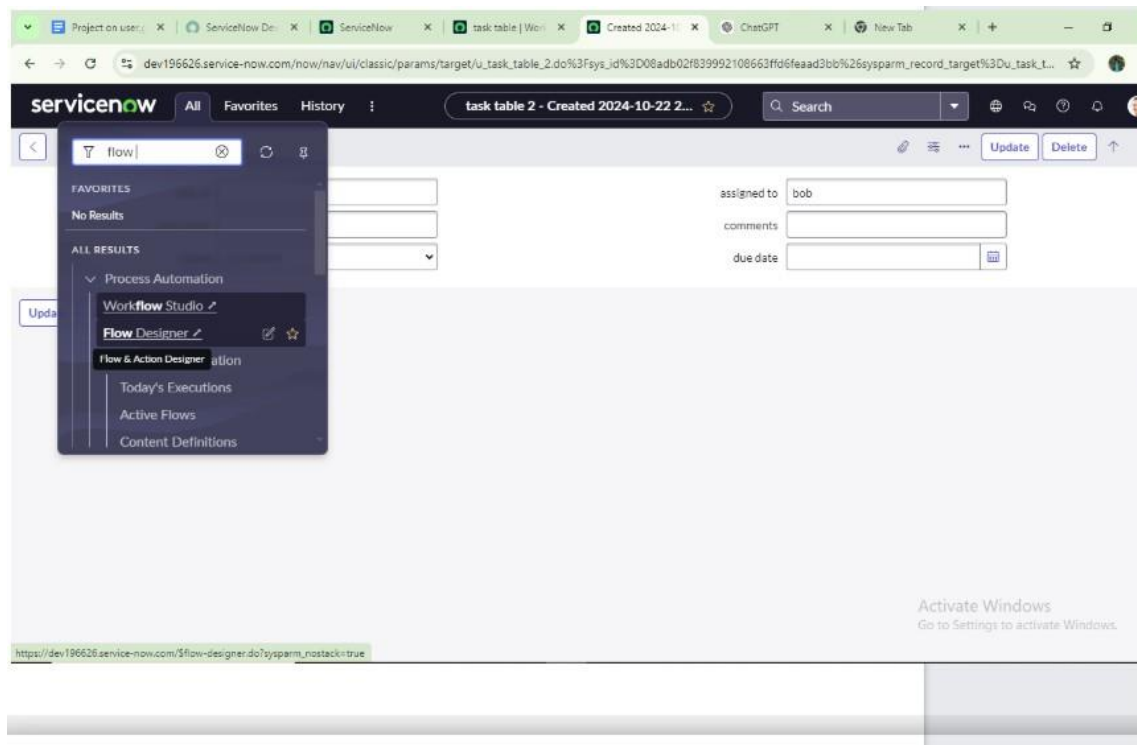
Activate Windows  
Go to Settings to activate Windows.



# FLOW

## 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.



Workflow Studio

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 39  
Last refreshed just now

**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 Settings to activate Windows.  
5 months ago
- Custom Administration modified

Name	Application	Status	Active	Updated
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09-23 04:23:59
Business process approval flow	Global	Published	true	2020-09-23 04:23:59
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

Workflow Studio

task table Flow

Operations

New Flow

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

Flow name nk  
task table

Description  
Describe your flow.

Application \*  
Global

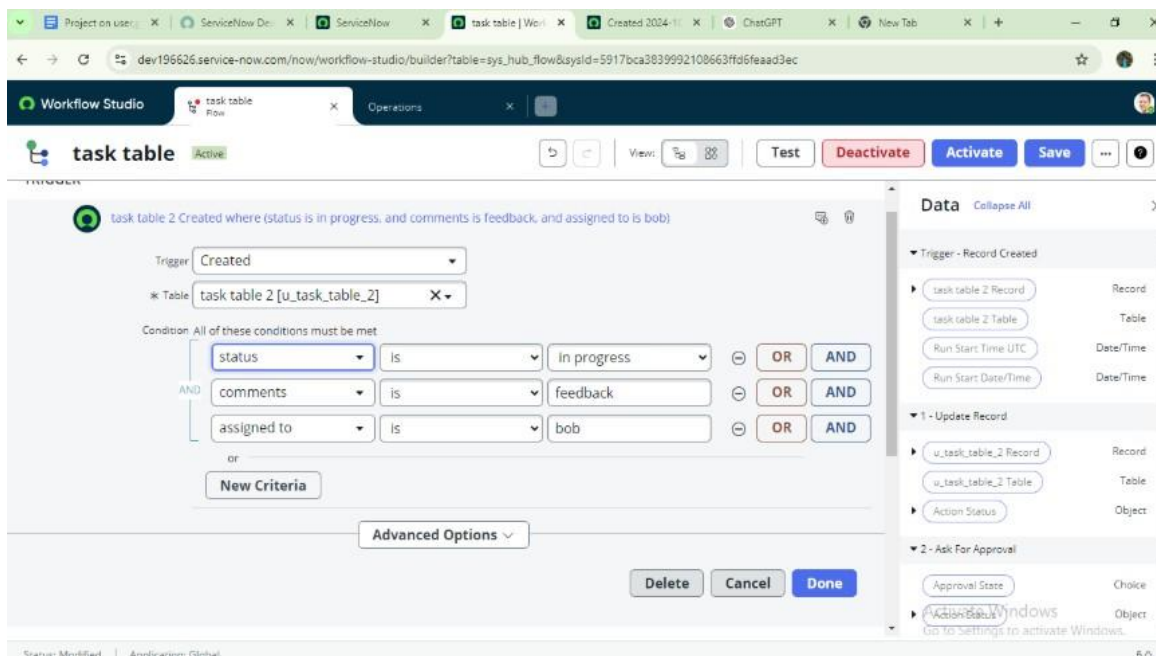
> Show additional properties

Activate Windows  
Go to Settings to activate Windows.

Cancel Build flow

next step:

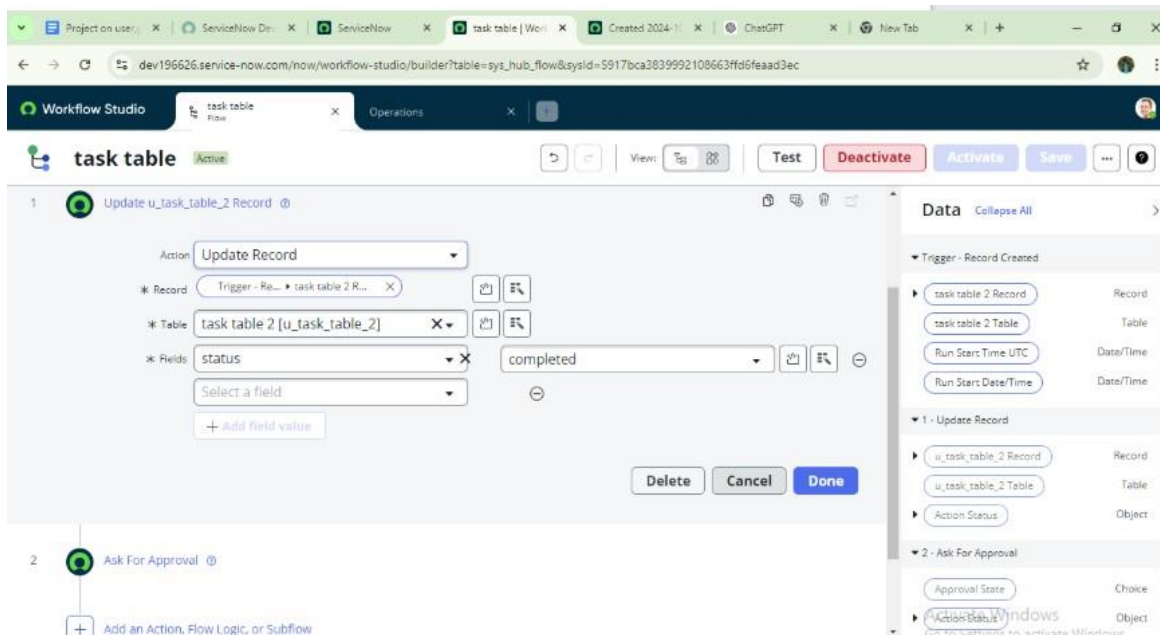
1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress Field  
: comments Operator :is Value : feedback  
Field : assigned to Operator :is Value : bob
5. After that click on Done.



Next step:

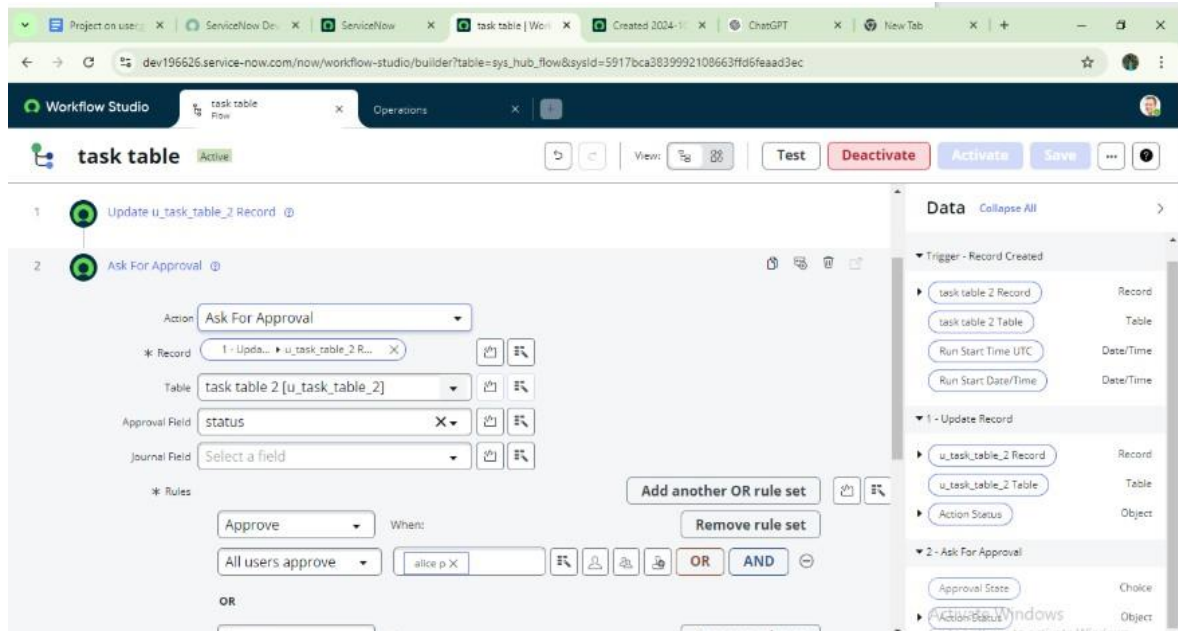
1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”

## 6. Click on Done.



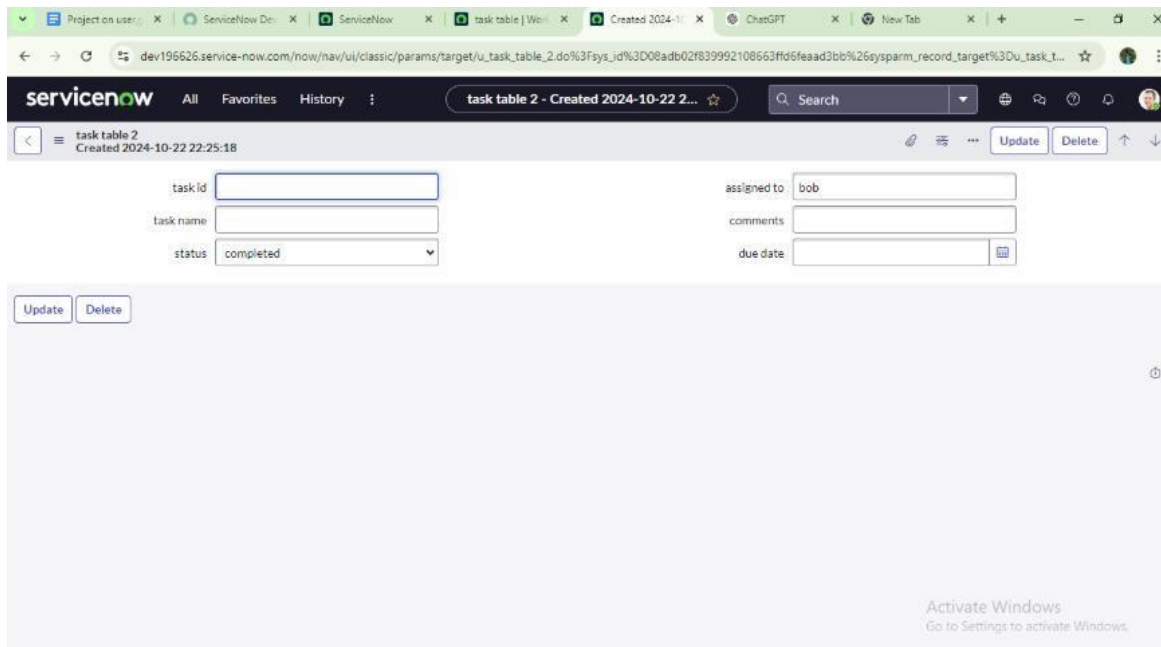
### Next step:

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.

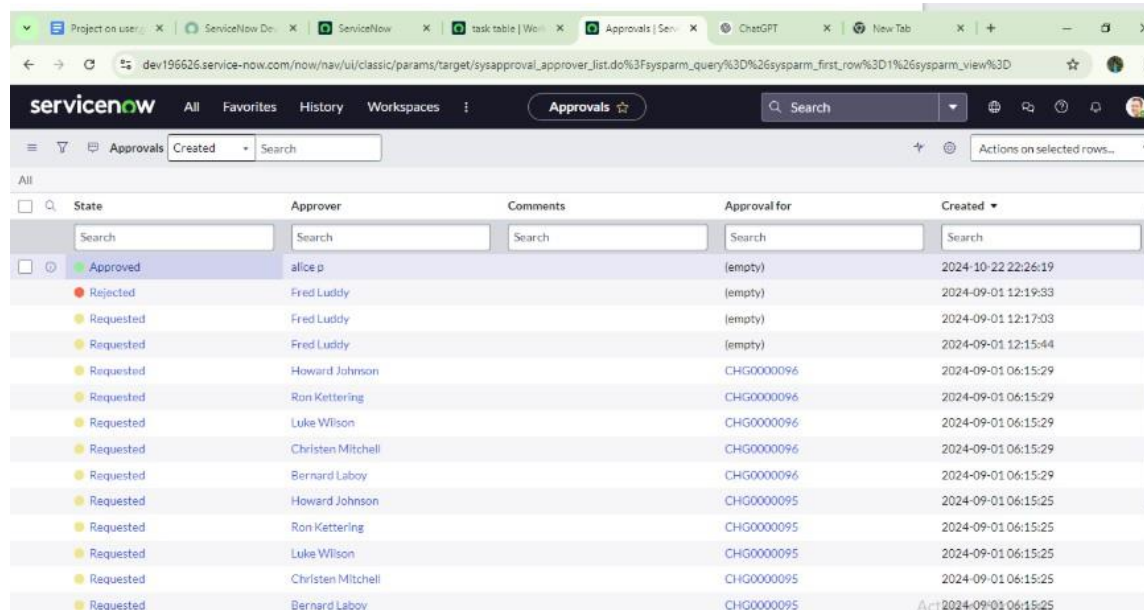
10. If status field is updated to completed



11. Go to application navigator and search for my approval

12. Click on my approval under the service desk.

13. Alice p got approval request then right click on requested then select approved



	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	Search	Search	Search	Search	Search
<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

Drive Link:

<https://drive.google.com/file/d/1RJniKmVvThgakGCoWUj5Q-pu-JgXMYr/view?usp=drivesdk>



Click Here To Watch Demo Video