

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.

Objective:

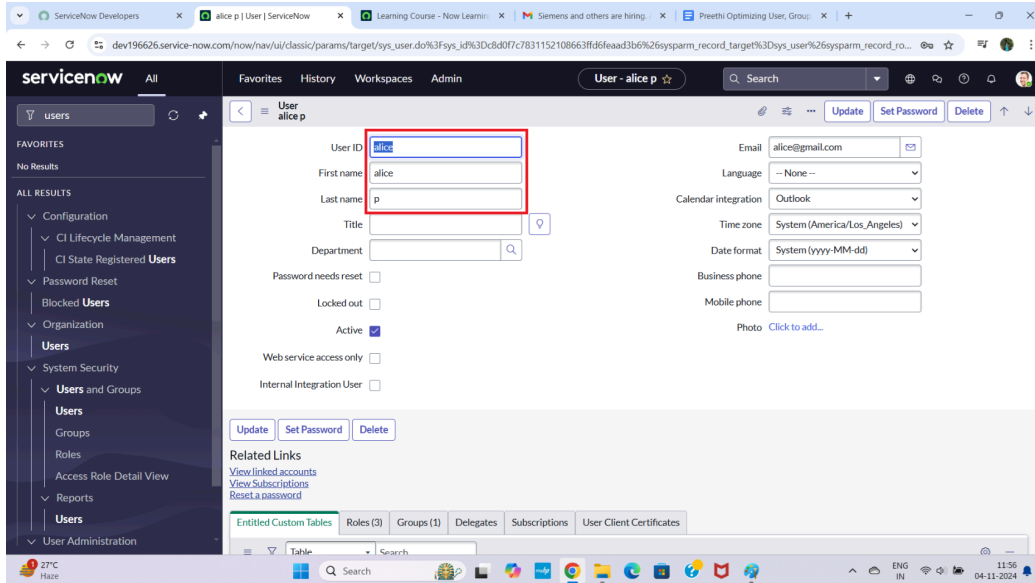
- 1. Define User Roles Clearly:** Establish distinct roles for Alice (Project Manager) and Bob (Team Member) to ensure clarity in responsibilities and access rights within the project management tool.
- 2. Implement Access Control Mechanisms:** Create a system that restricts Bob's access to project creation and editing features while allowing him to view and update his assigned tasks, thereby preventing unauthorized changes.
- 3. Streamline Workflow Processes:** Develop a structured workflow for task assignment and progress tracking, ensuring that Alice can easily assign tasks to Bob and monitor their completion in a timely manner.

TASK INITIATION

Milestone 1 : Users

Activity 1: Create Users

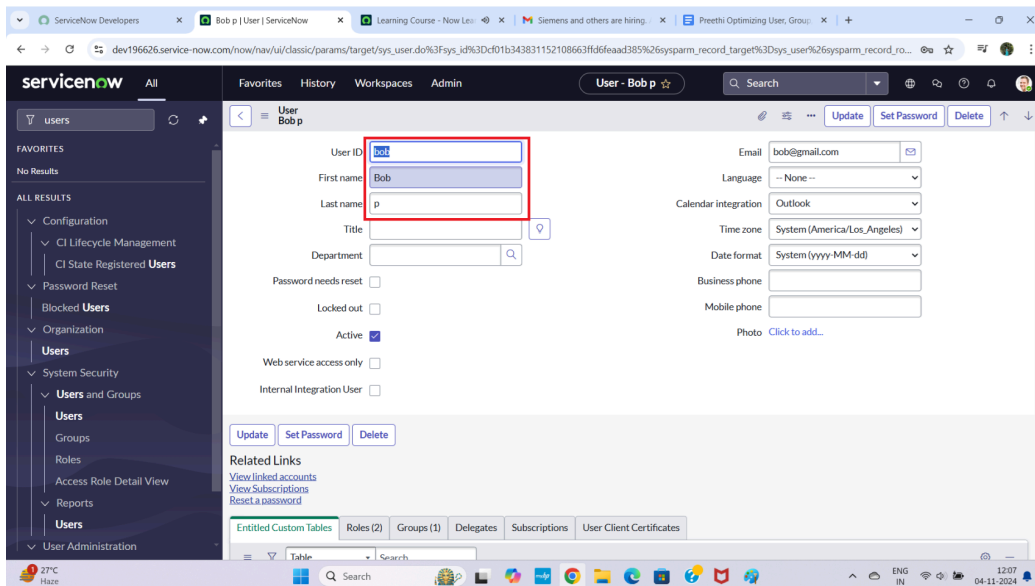
1. Open service now.
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit



The screenshot shows the ServiceNow user profile page for 'User - alice p'. The 'User ID' field is highlighted with a red box. The 'First name' field contains 'alice' and the 'Last name' field contains 'p'. The 'Email' field is 'alice@gmail.com'. The 'Language' is set to 'None'. The 'Calendar integration' is 'Outlook'. The 'Time zone' is 'System (America/Los Angeles)'. The 'Date format' is 'System (yyyy-MM-dd)'. The 'Business phone' and 'Mobile phone' fields are empty. The 'Photo' field has a 'Click to add...' link. The 'Active' checkbox is checked. The 'Update', 'Set Password', and 'Delete' buttons are visible at the bottom of the form.

Create one more user:

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

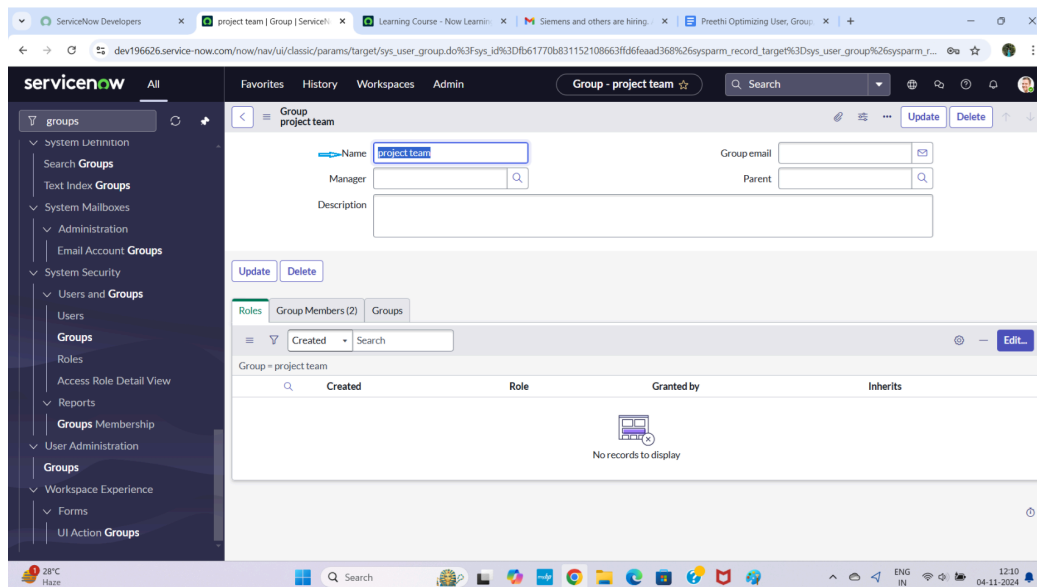


The screenshot shows the ServiceNow user profile page for 'User - Bob p'. The 'User ID' field is highlighted with a red box. The 'First name' field contains 'Bob' and the 'Last name' field contains 'p'. The 'Email' field is 'bob@gmail.com'. The 'Language' is set to 'None'. The 'Calendar integration' is 'Outlook'. The 'Time zone' is 'System (America/Los Angeles)'. The 'Date format' is 'System (yyyy-MM-dd)'. The 'Business phone' and 'Mobile phone' fields are empty. The 'Photo' field has a 'Click to add...' link. The 'Active' checkbox is checked. The 'Update', 'Set Password', and 'Delete' buttons are visible at the bottom of the form.

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

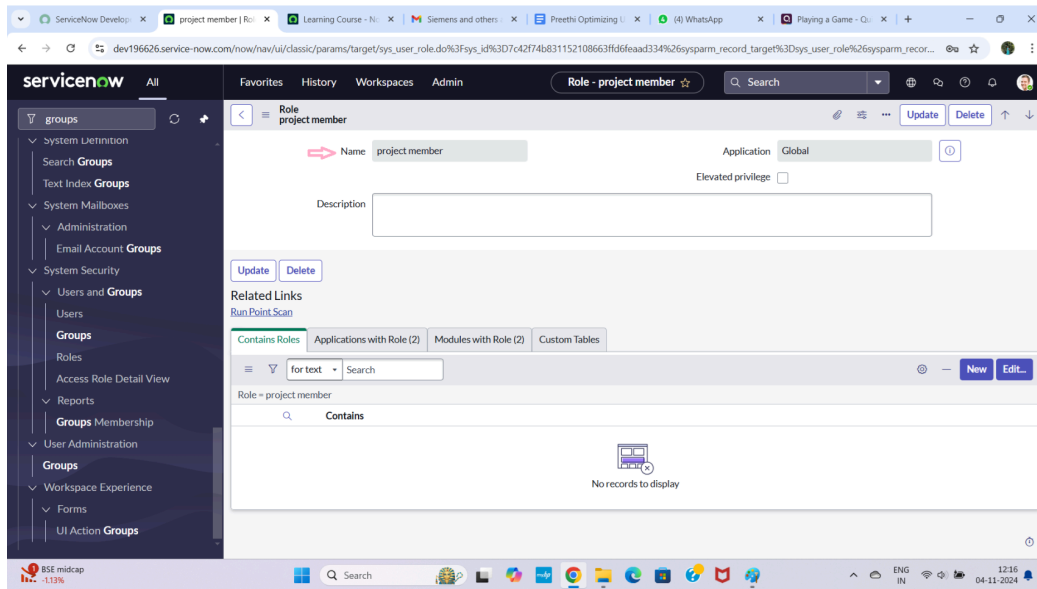


Milestone 3 : Roles

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:

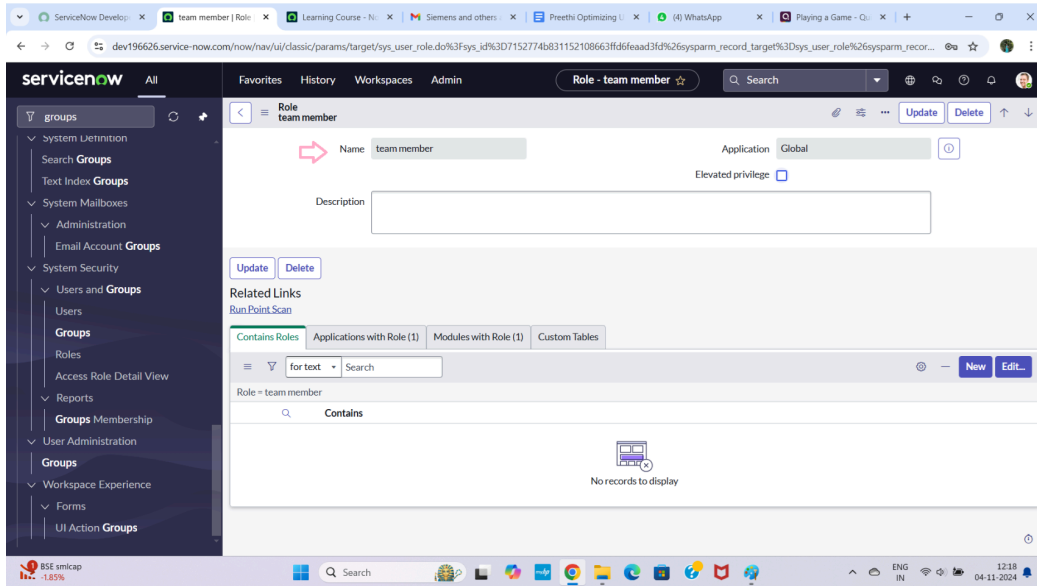
7. Create another role with the following details

8. Click on submit

Milestone 4 : Table

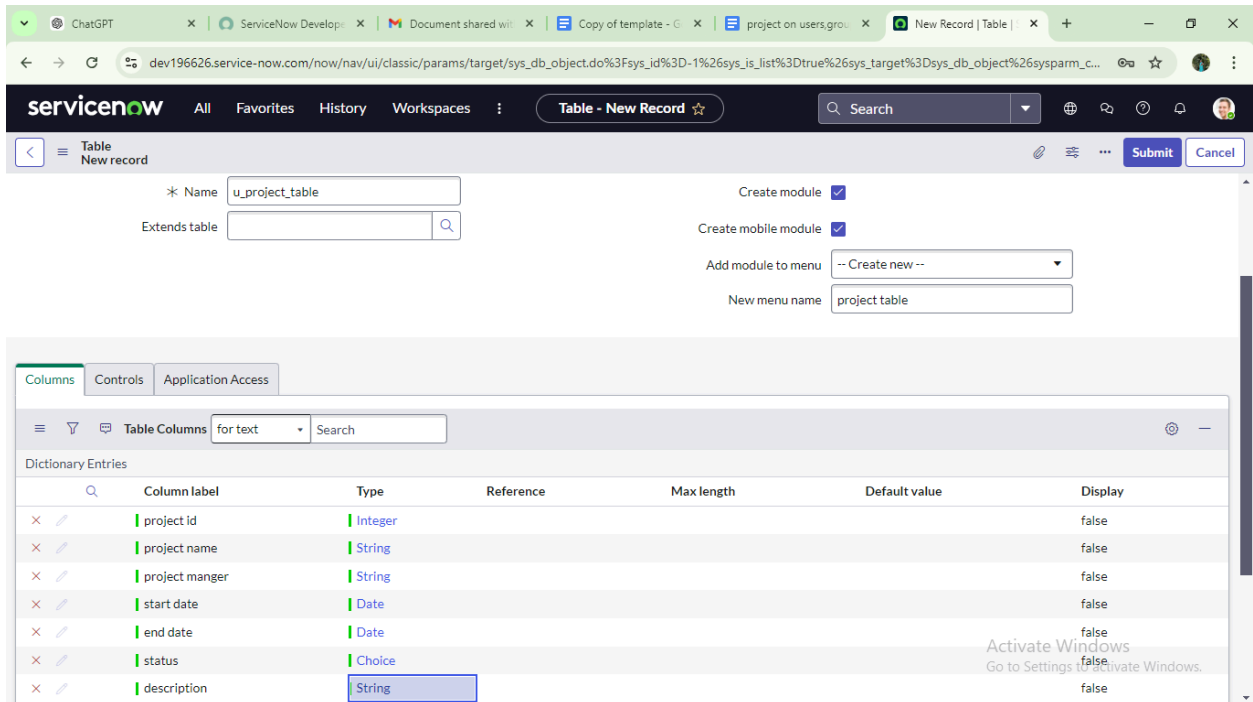
Activity 1: Create Table

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



The screenshot shows the ServiceNow interface for configuring a role named 'team member'. The left sidebar contains a navigation menu with categories like System Definition, System Mailboxes, Administration, System Security, Users and Groups, Reports, User Administration, Workspace Experience, and Forms. The main content area shows the role configuration details, including Name, Application, Description, and Related Links. The 'Contains' section is currently empty, displaying 'No records to display'.

8. Click on submit



The screenshot shows the ServiceNow interface for configuring a new table named 'u_project_table'. The 'Table - New Record' form is displayed, with fields for Name, Extends table, Create module, Create mobile module, Add module to menu, and New menu name. The 'Columns' tab is selected, showing a list of dictionary entries for the table.

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 | project on users, grou | ServiceNow Develop | ServiceNow | task table 2 | Table | ChatGPT

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Df53ba8e3835992108663ffd6fead365%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		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

Insert a new row...

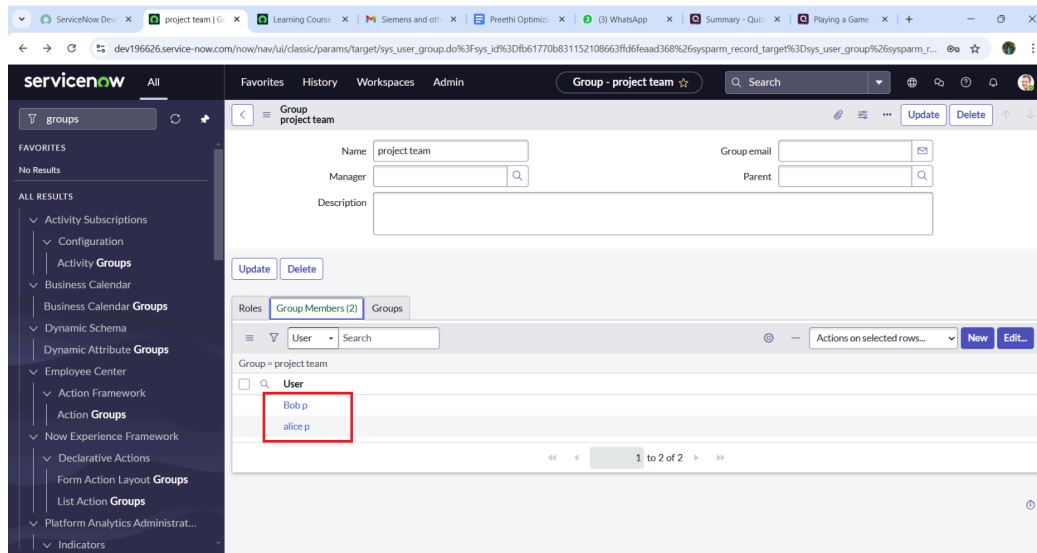
Activate Windows
Go to Settings to activate Windows

Delete Update Delete All Records

Milestone 5 : Assign users to groups

Activity 1: Assign users to project team group

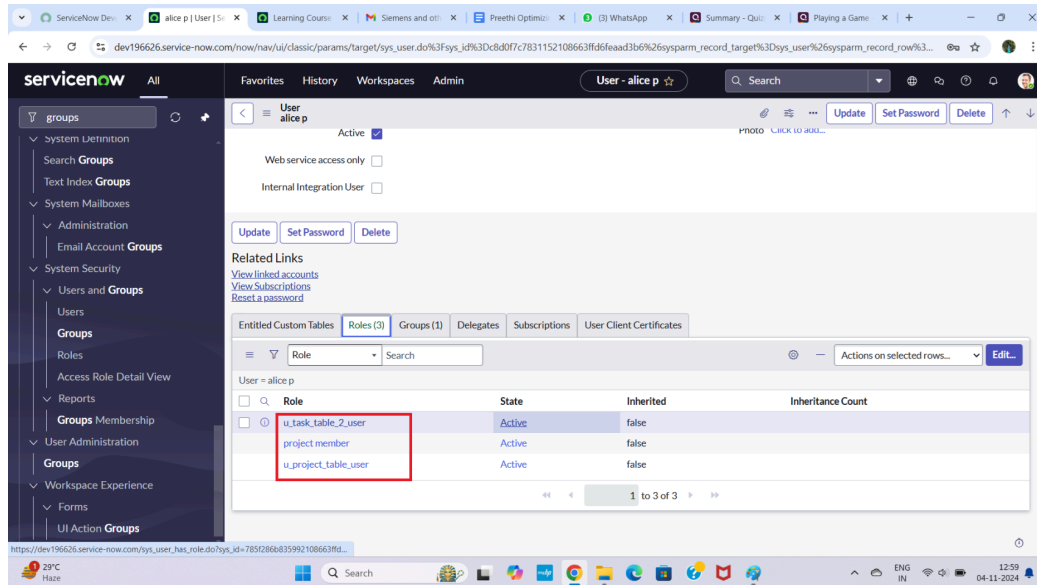
1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



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.

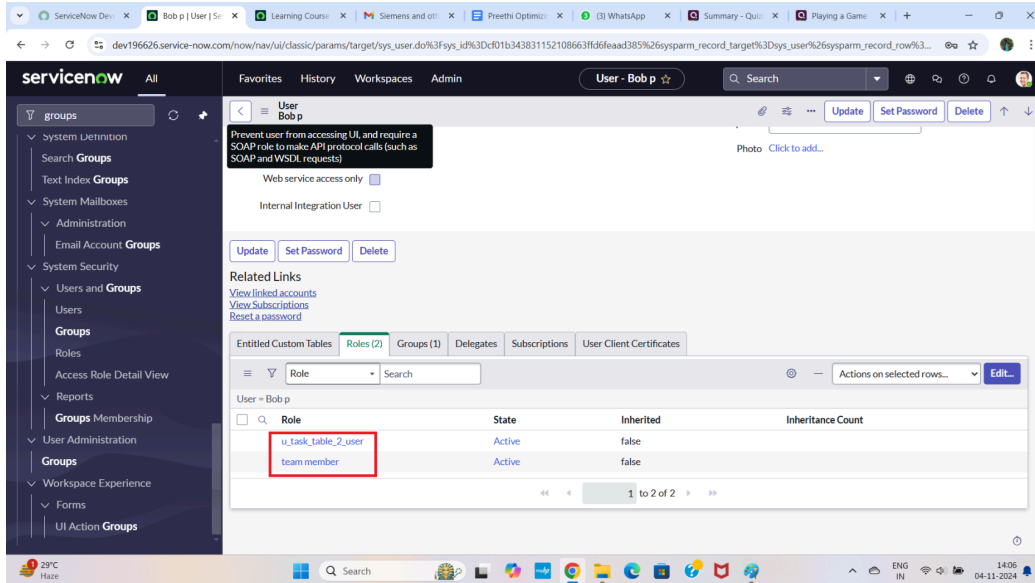


The screenshot shows the ServiceNow user management interface. The user 'alice p' is selected, and the 'Roles' tab is active. The table below lists the roles assigned to the user:

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. 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.



ServiceNow User Management Interface for User Bob p.

Prevent user from accessing UI, and require a SOAP role to make API protocol calls (such as SOAP and WSDL requests)

Web service access only ☐

Internal Integration User ☐

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

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

1 to 2 of 2

Milestone 7 : 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

Copy of template - Google Doc x project on users,groups,roles,ta x ServiceNow Developers x project table | Application Menu x

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D9705334f831152108663ffd6fead362

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

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.

Copy of template - Google Doc x ServiceNow Developers x project table | Application Menu x task table 2 | Application Menu x ChatGPT x

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D114bece3835992108663ffd6fead3dc

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

Application Menu task table 2 Update Delete

* Title Application Active ☒

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

Roles

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

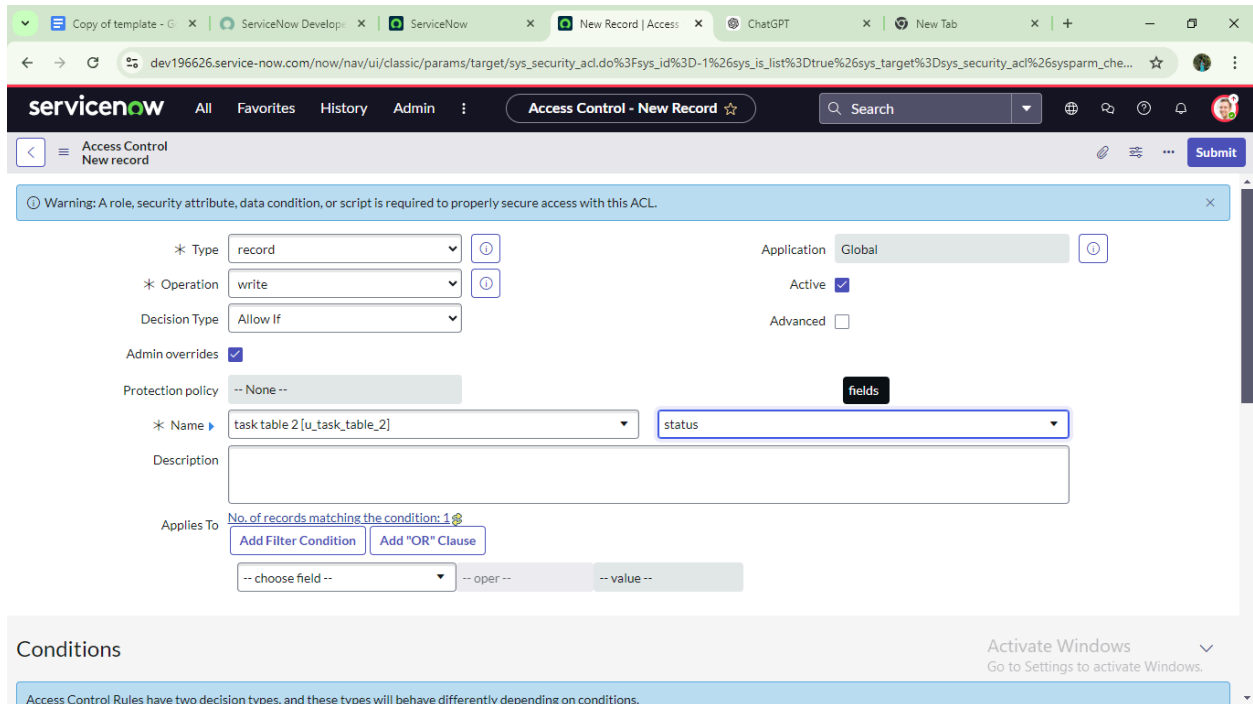
Activate Windows
Go to Settings to activate Windows.

Modules Order Search Actions on selected rows... New

Milestone 8 : 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 ServiceNow 'Access Control - New Record' form. 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 dark header with 'servicenow' logo, navigation links (All, Favorites, History, Admin), a search bar, and a 'Submit' button. A warning message at the top states: 'Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL.' The form fields include:

- * Type: record (dropdown)
- * Operation: write (dropdown)
- Decision Type: Allow If (dropdown)
- Application: Global (dropdown)
- Active: ☒
- Advanced: ☐
- Admin overrides: ☒
- Protection policy: -- None -- (dropdown)
- * Name: task table 2 [u_task_table_2] (dropdown)
- status (dropdown)
- Description: (text area)
- Applies To: No. of records matching the condition: 1 (info icon)
- Buttons: Add Filter Condition, Add "OR" Clause
- Fields: -- choose field -- (dropdown), -- oper -- (dropdown), -- value -- (text input)

 At the bottom, there is a 'Conditions' section with a warning: '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_ad_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

<input type="checkbox"/>	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

Activate Windows. Go to Settings to activate Windows.

1 to 20 of 23

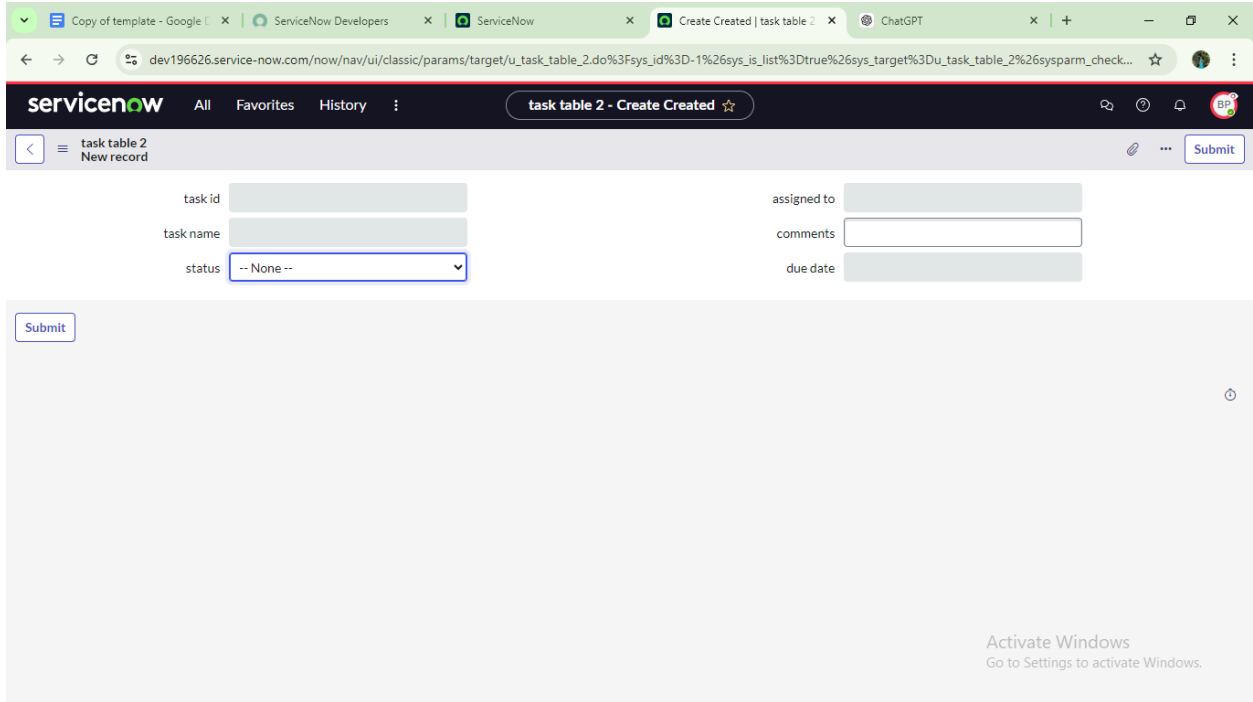
12. Click on profile on top right side

13. Click on impersonate user

14. Select bob user

15. Go to all and select task table2 in the application menu bar

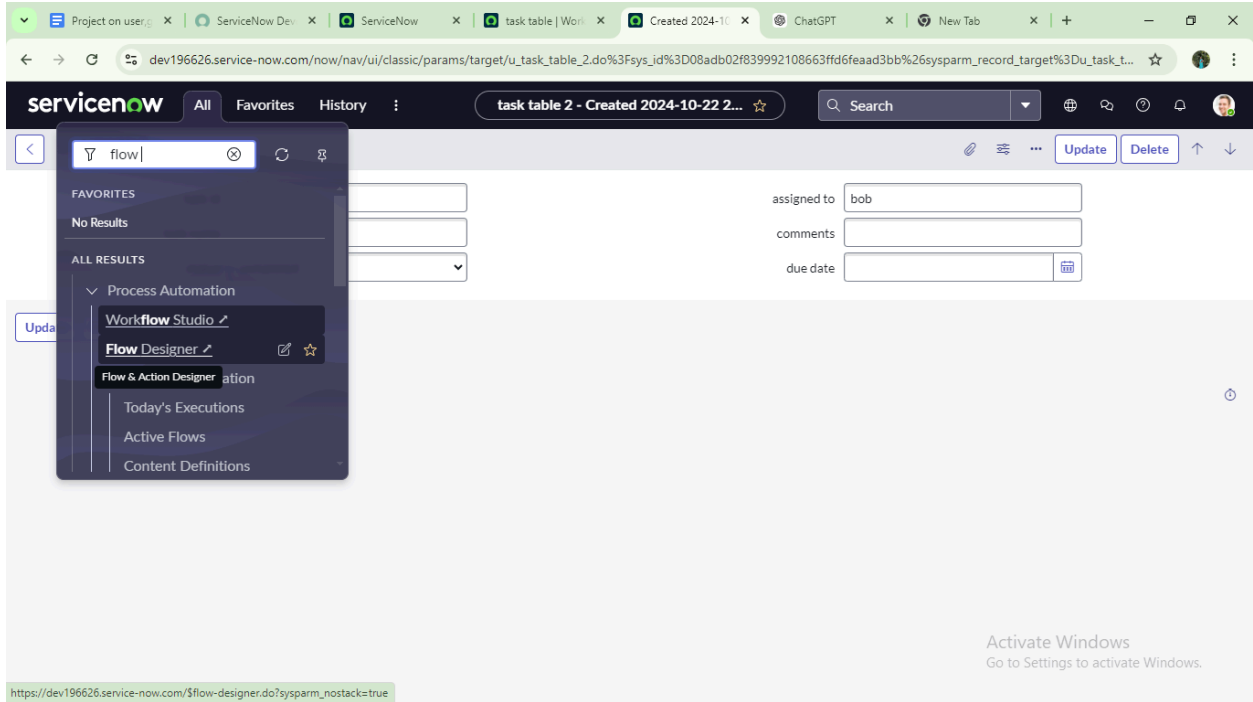
16. Comment and status fields are have the edit access



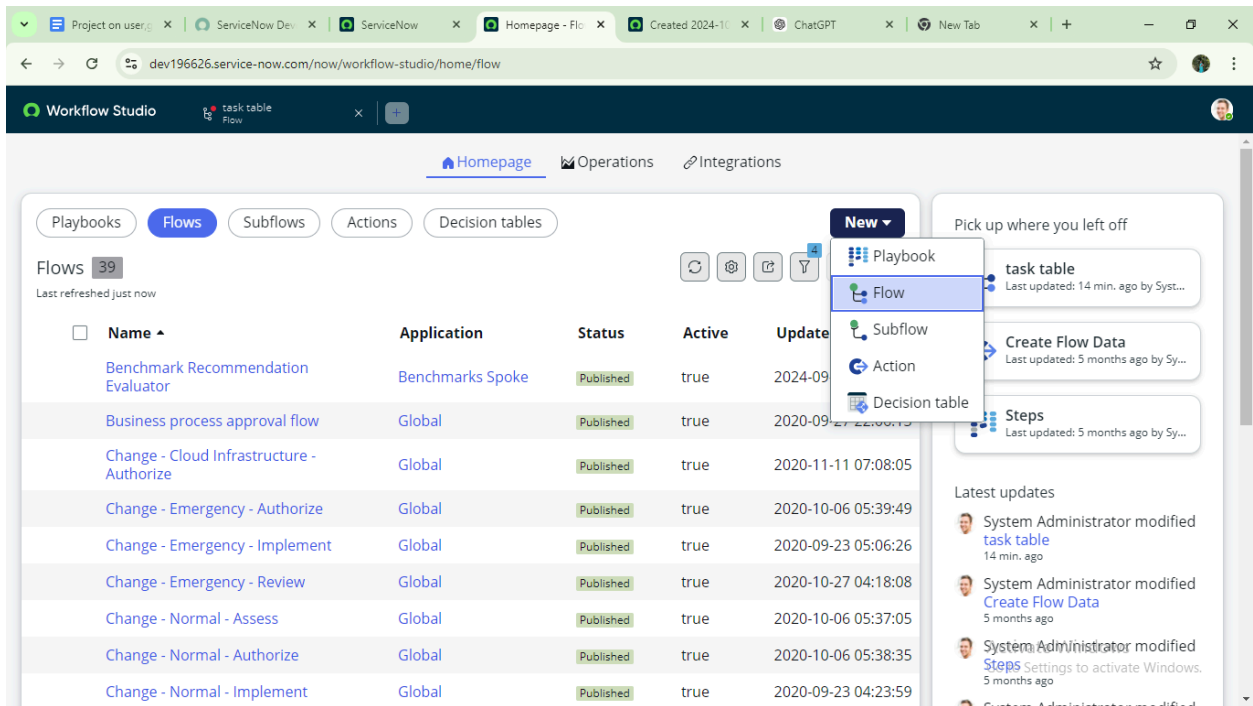
Milestone 9: Flow

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.



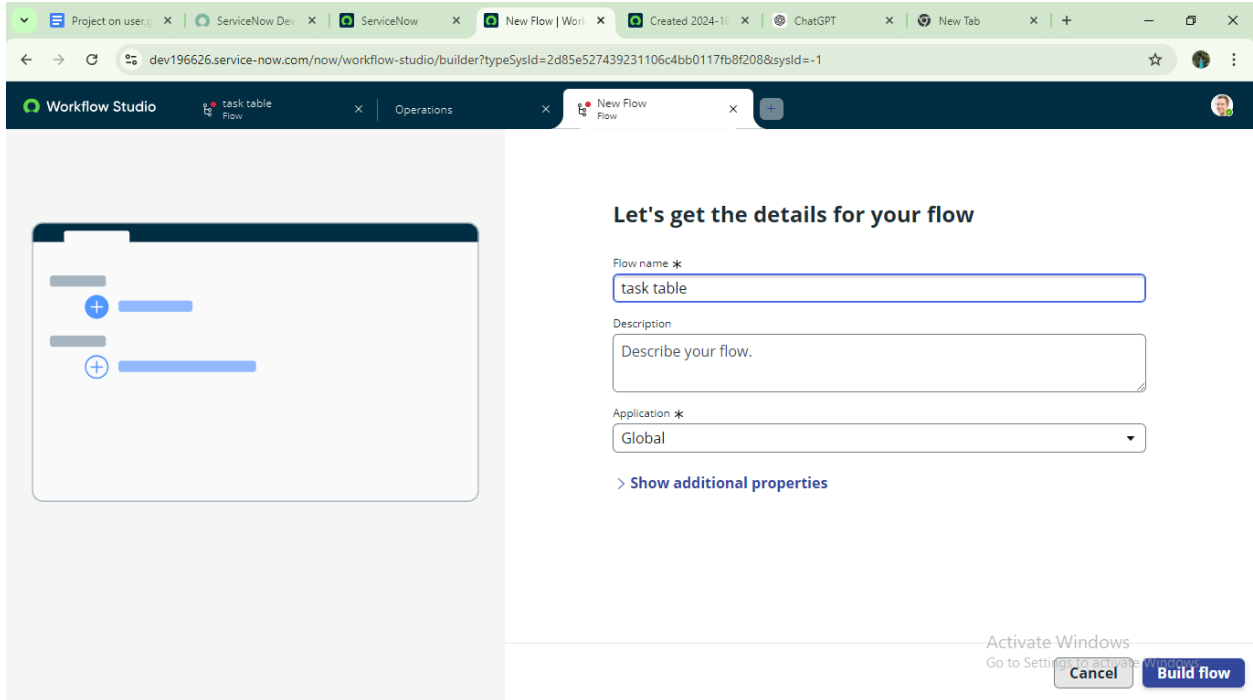
The screenshot shows the ServiceNow interface with a search bar containing 'flow'. A dropdown menu is open, showing 'No Results' under 'FAVORITES' and 'ALL RESULTS'. Under 'ALL RESULTS', there is a section for 'Process Automation' with links to 'Workflow Studio', 'Flow Designer', and 'Flow & Action Designer'. Below these are links for 'Today's Executions', 'Active Flows', and 'Content Definitions'. The background shows a form with fields for 'assigned to' (bob), 'comments', and 'due date'.



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

Name	Application	Status	Active	Updated
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09-23 05:06:26
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

On the right side, there is a 'Pick up where you left off' section with cards for 'task table', 'Create Flow Data', and 'Steps'. Below this is a 'Latest updates' section with a list of recent changes.



Let's get the details for your flow

Flow name *
task table

Description
Describe your flow.

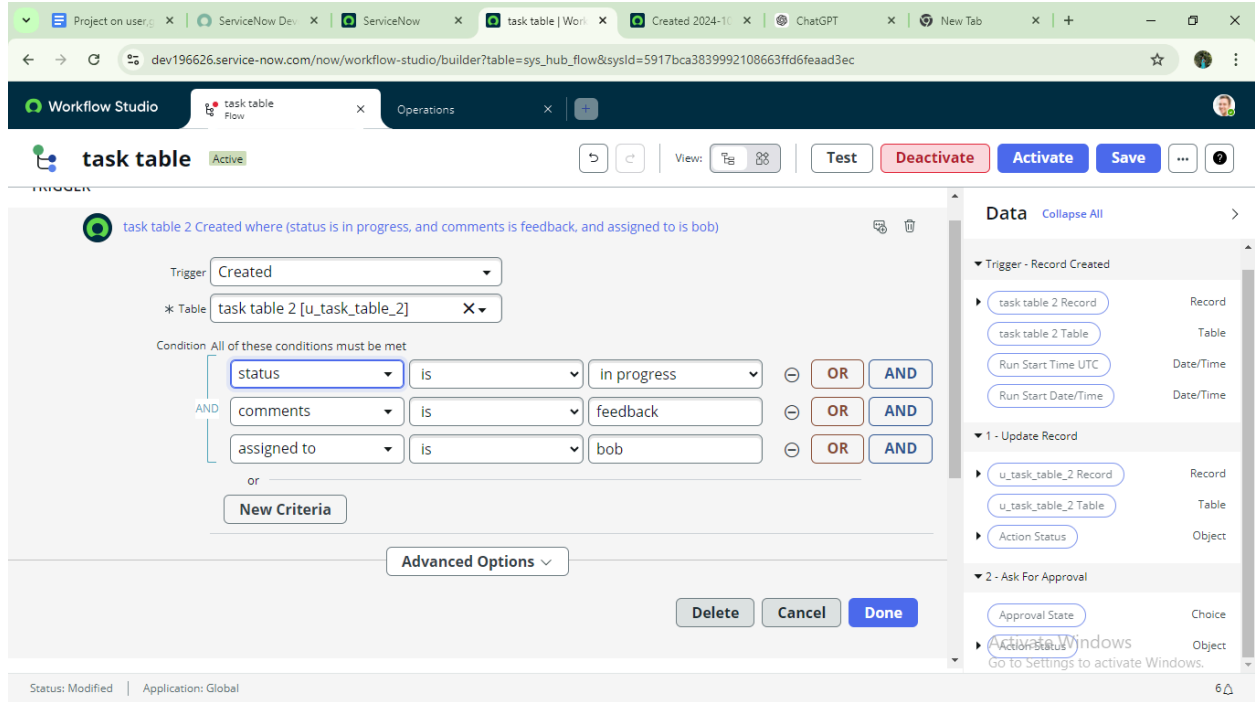
Application *
Global

> 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 for a workflow named "task table 2". The workflow is currently "Active". The trigger is set to "Created" for the table "task table 2 [u_task_table_2]". The condition is configured with three criteria: "status is in progress", "comments is feedback", and "assigned to is bob". The right-hand pane shows the "Data" section with a list of fields available for use in the workflow, 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 Status".

Workflow Configuration:

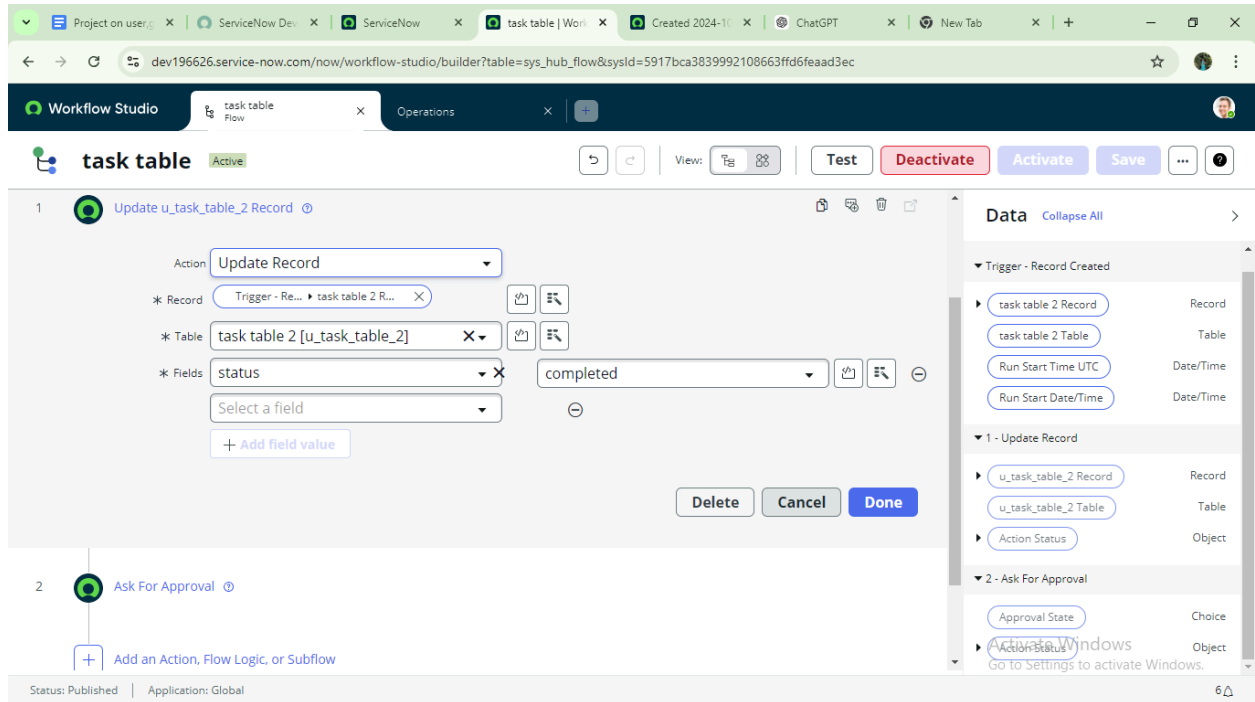
- Trigger:** Created
- Table:** task table 2 [u_task_table_2]
- Condition:** All of these conditions must be met
 - status is in progress
 - comments is feedback
 - assigned to is bob

Data Navigation (Right Side):

- 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)

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.



The screenshot shows the ServiceNow Workflow Studio interface. The main workspace displays a workflow with two steps:

- 1 Update u_task_table_2 Record**: This step is configured with the following details:
 - Action**: Update Record
 - Record**: Trigger - Re... → task table 2 R...
 - Table**: task table 2 [u_task_table_2]
 - Fields**: status (selected), completed (selected)
- 2 Ask For Approval**: This step is currently empty.

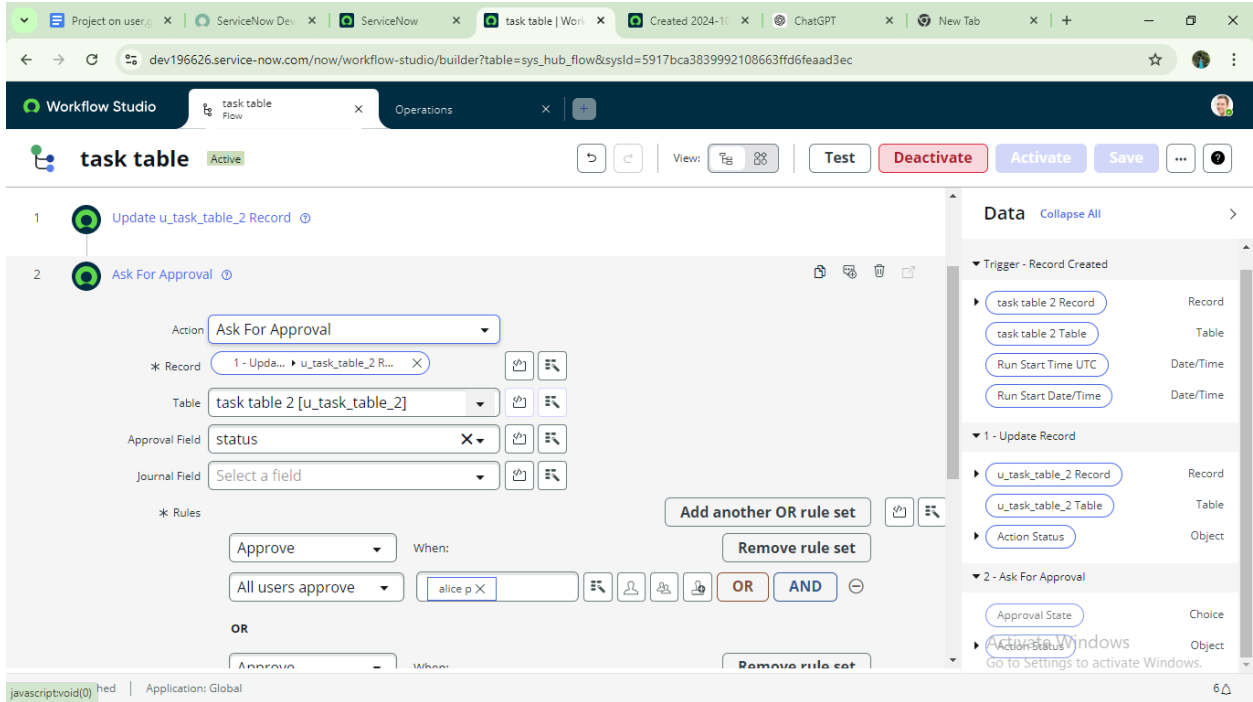
The right-hand pane shows the **Data** navigation tree, which includes:

- 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)

At the bottom of the interface, the status is 'Published' and the application is 'Global'.

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.



task table Active

1. Update u_task_table_2 Record

2. Ask For Approval

Action: Ask For Approval

* Record: 1 - Upda... u_task_table_2 R...

Table: task table 2 [u_task_table_2]

Approval Field: status

Journal Field: Select a field

* Rules

Approve When: All users approve

alice p

OR

Approve When:

Remove rule set

Data Collapse All

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)

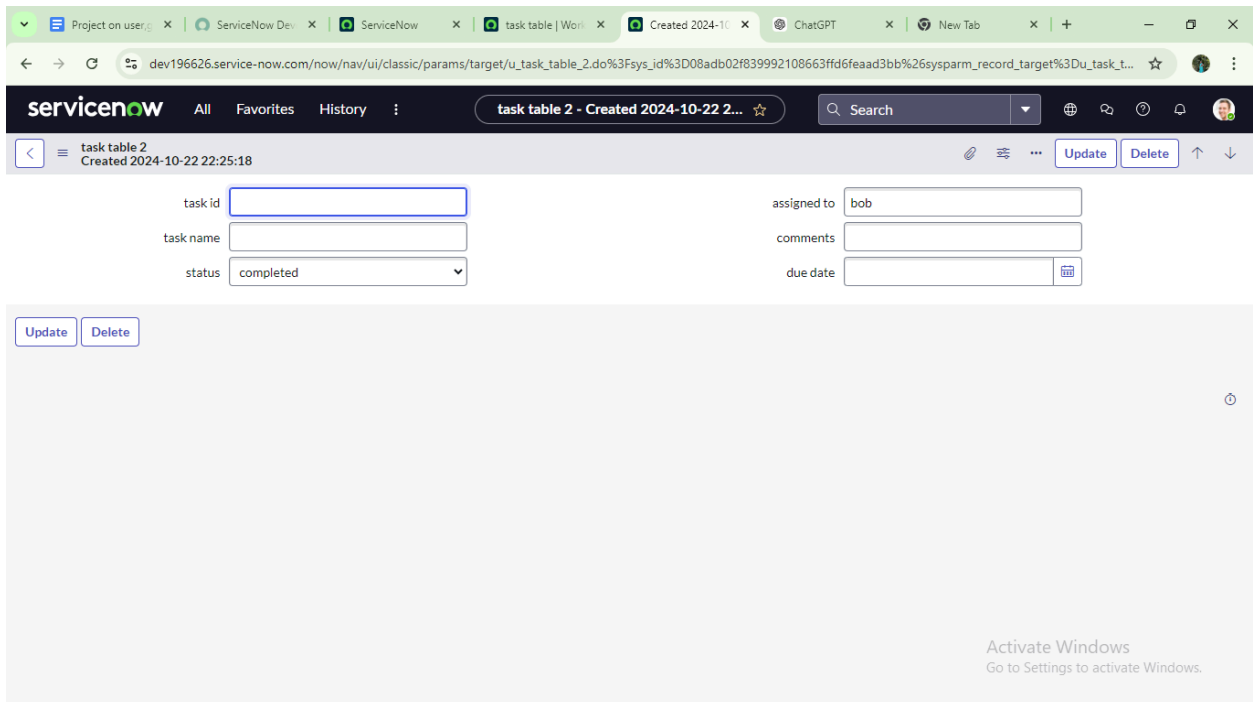
2 - Ask For Approval

- Approval State (Choice)
- Action Status (Object)

Go to Settings to activate Windows.

9.Go to application navigator search for task table.

10.It status field is updated to completed



servicenow All Favorites History

task table 2 - Created 2024-10-22 22:51:18

task id

task name

status: completed

assigned to: bob

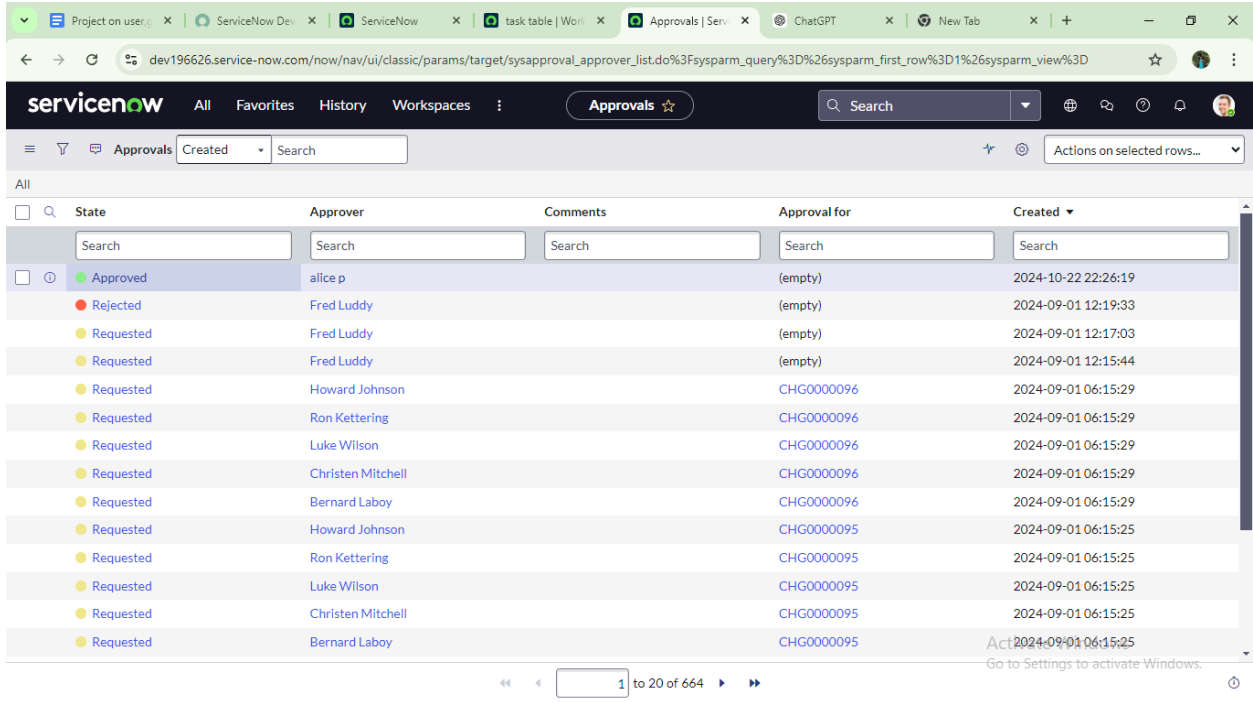
comments

due date

Update Delete

Activate Windows
Go to Settings to activate Windows.

11. Go to application navigator and search for my approval
12. Click on my approval under service desk.



The screenshot shows the ServiceNow 'Approvals' list view. The table contains the following data:

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.