

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

Team Id: NM2025TMID13890

Team Details:-

Team Leader: A yuvaganesh

Team Member 1: B.Anand raj

Team Member 2: G.Sanjay

Team Member 3:-Nitish kumar

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:

To design and implement a structured role-based access control system with clear workflows that streamline task management and accountability within small project teams.”

Skills:

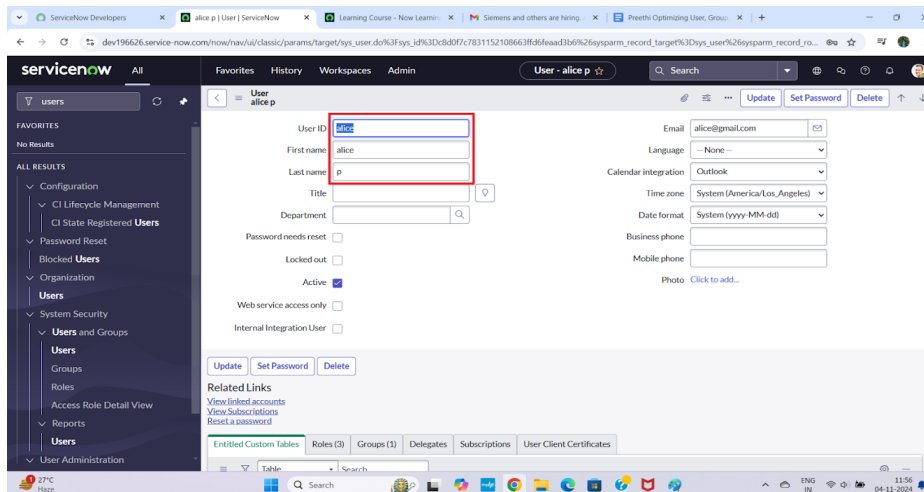
Tensorflow,Oracle DB

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



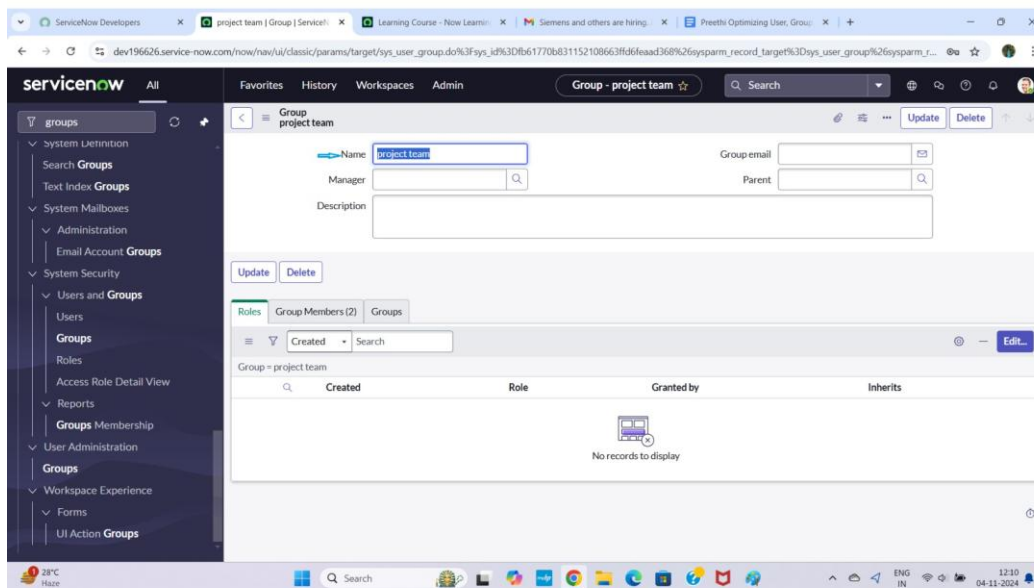
Create one more user:

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

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

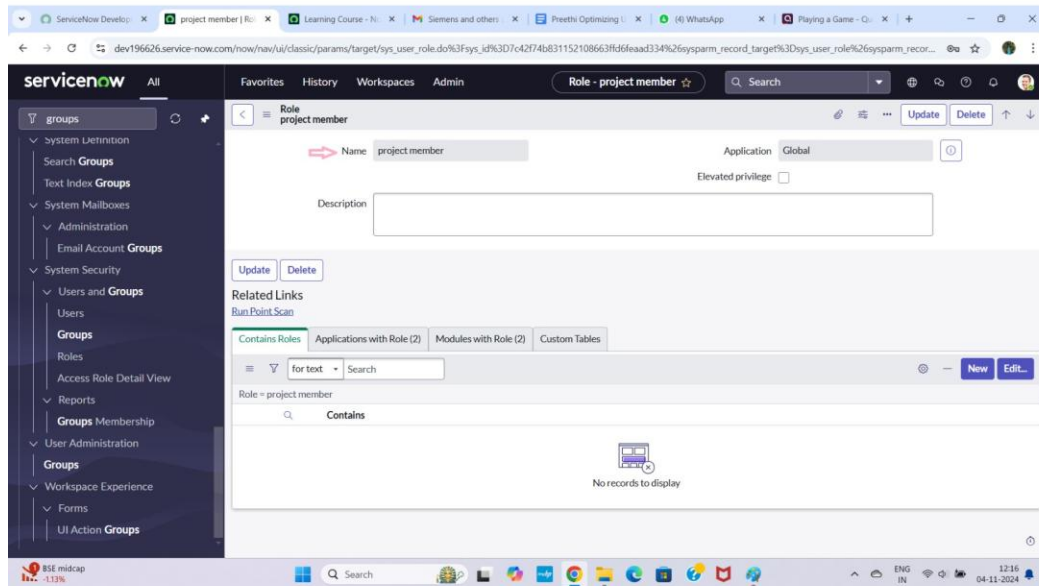


The screenshot shows the ServiceNow Groups creation form. The left sidebar contains a navigation menu with categories like System Definition, System Mailboxes, System Security, and Workspace Experience. The main form area is titled 'Group - project team' and includes fields for Name (project team), Group email, Manager, Parent, and Description. Below these fields are 'Update' and 'Delete' buttons. A section titled 'Roles' shows 'Group Members (2)' and 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: 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:

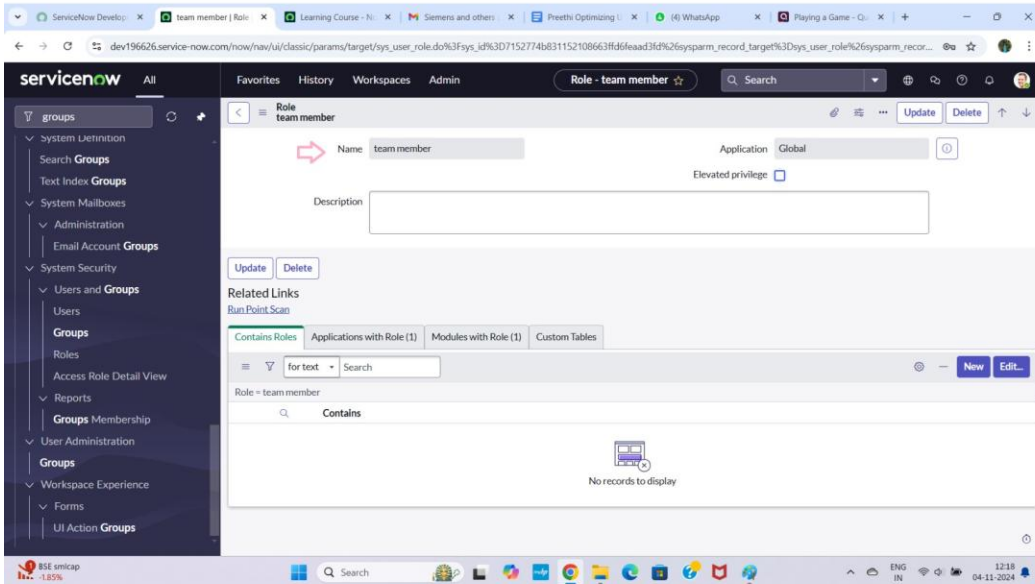
7. Create another role with the following details
8. Click on submit

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

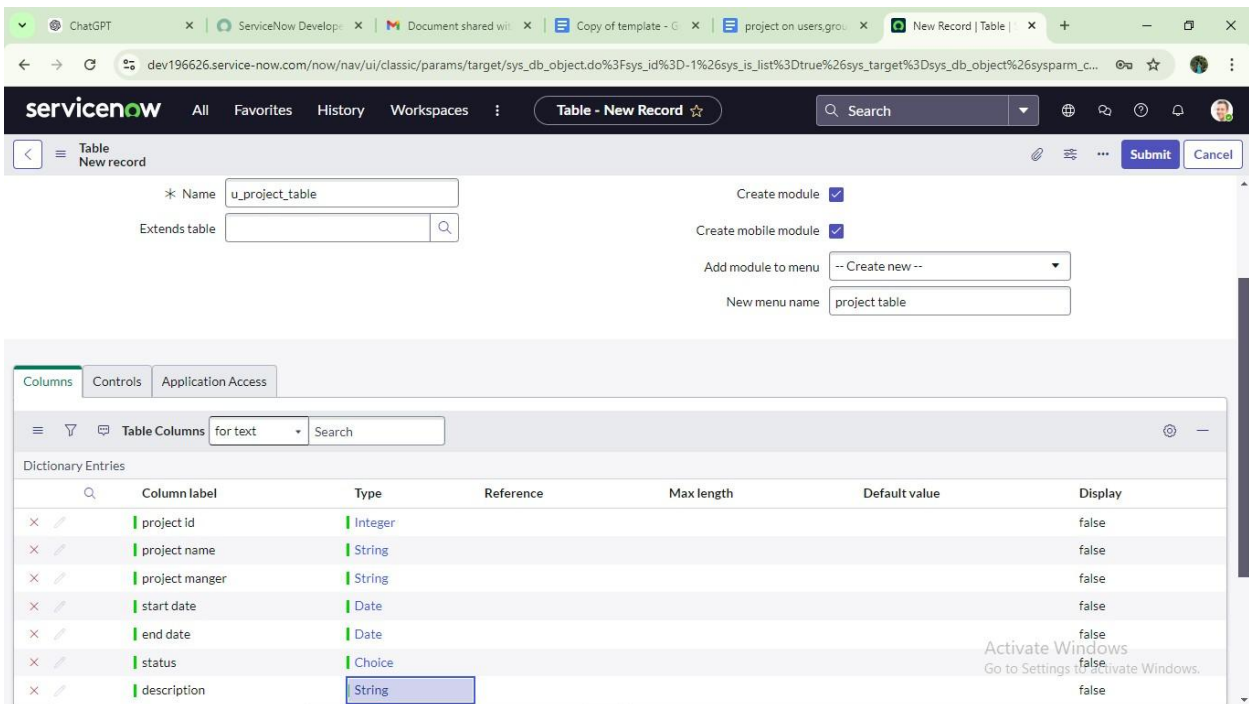
Check the boxes Create module & Create mobile module

6. Under new menu name : project table
7. Under table columns give the columns



The screenshot shows the ServiceNow 'Role - team member' configuration page. The 'Name' field is set to 'team member' and the 'Application' is 'Global'. The 'Description' field is empty. Below the form, there are 'Update' and 'Delete' buttons. The 'Related Links' section includes a 'Run Point Scan' link. The 'Contains Roles' section is currently empty, displaying 'No records to display'.

8. Click on submit



The screenshot shows the ServiceNow 'Table - New Record' configuration page. The 'Name' field is set to 'u_project_table'. The 'Extends table' field is empty. The 'Create module' checkbox is checked, and the 'Create mobile module' checkbox is also checked. The 'Add module to menu' dropdown is set to '-- Create new --', and the 'New menu name' field is set to 'project table'. Below the form, there are 'Submit' and 'Cancel' buttons. The 'Columns' tab is selected, showing a list of dictionary entries for the table.

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

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%3Df53ba8e3835992108663ffd6fead365%26sysparm_view%3D%26sysparm_dom...

serviceNow All Favorites History Workspaces Table - task table 2 Search

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...					

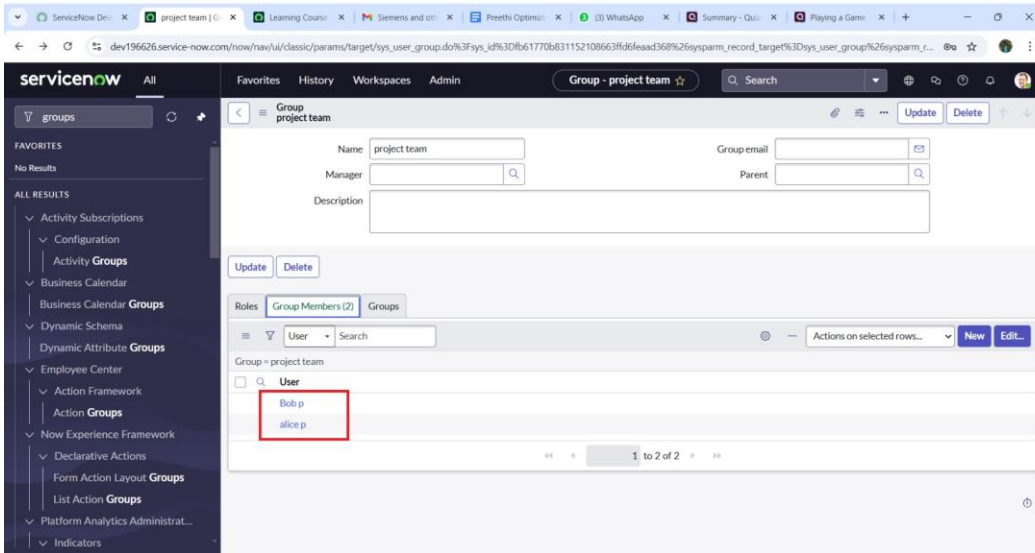
Activate Windows
Go to Settings to activate Windows.

Delete Update Delete All Records

Milestone 5 : Assign users to groups

Activity 1: Assign users to project team group

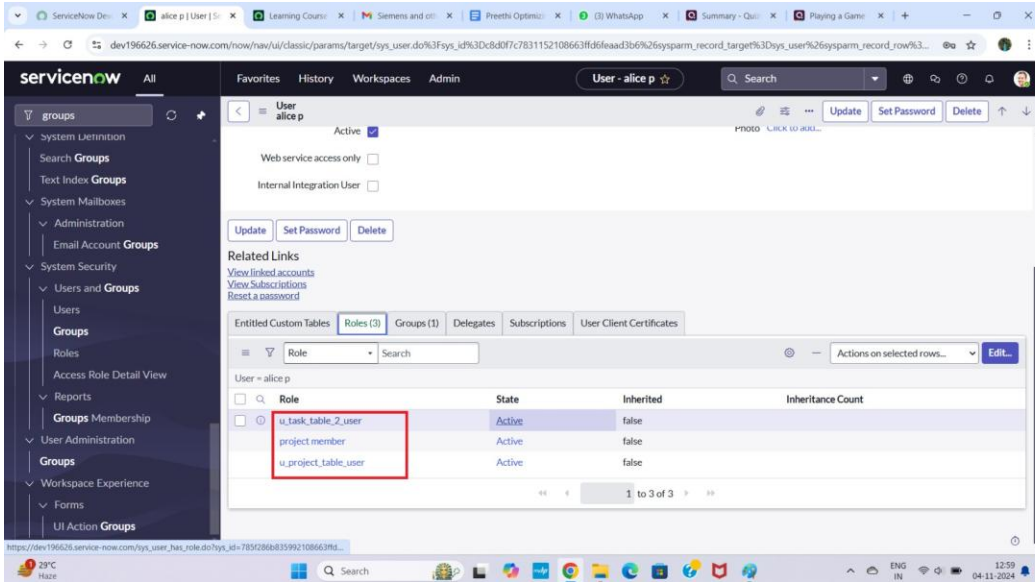
1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



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.

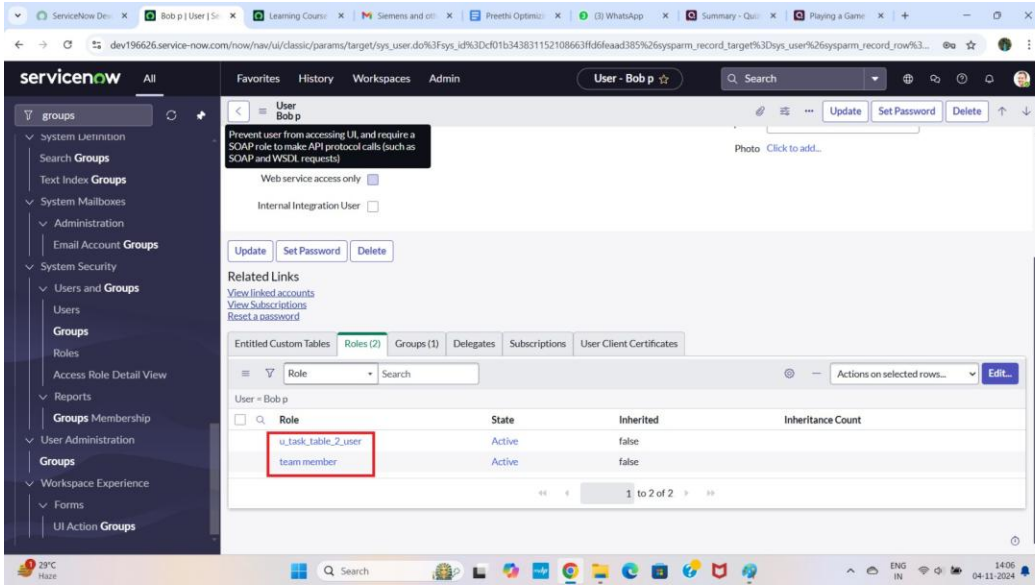


The screenshot shows the ServiceNow user management interface. The user 'alice p' is selected, and the 'Roles' tab is active. The table below lists the roles assigned to the user:

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.



The screenshot shows the ServiceNow user interface for a user named 'Bob p'. The left sidebar contains a navigation menu with categories like 'System User', 'System Mailboxes', 'Administration', 'System Security', 'Users and Groups', 'Reports', 'Groups Membership', 'User Administration', 'Workspace Experience', and 'Forms'. The main content area shows the user profile for 'Bob p' with options to 'Update', 'Set Password', and 'Delete'. Below this, there are 'Related Links' and a tabbed interface for 'Entitled Custom Tables', 'Roles (2)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles (2)' tab is active, showing a table of roles assigned to the user.

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 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%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.

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

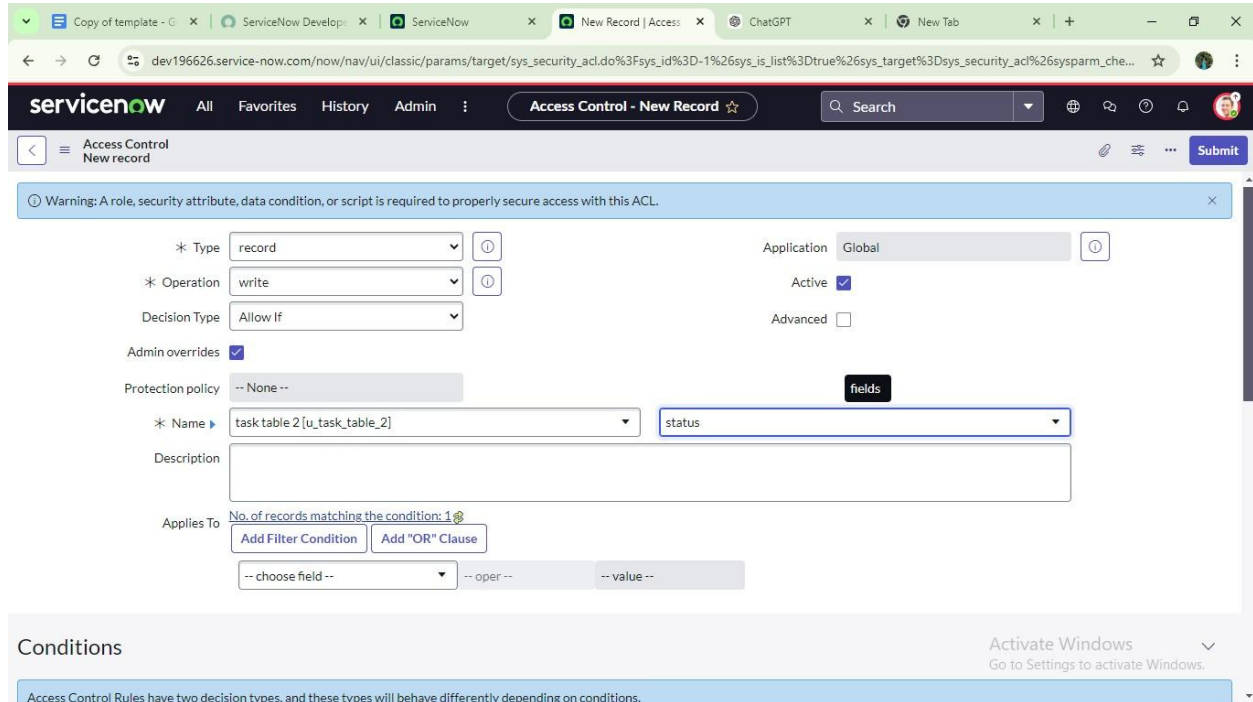
Update Delete

Activate Windows
Go to Settings to activate Windows.

Modules Order Search Actions on selected rows New

Milestone 8 :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

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

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_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

1 to 20 of 23

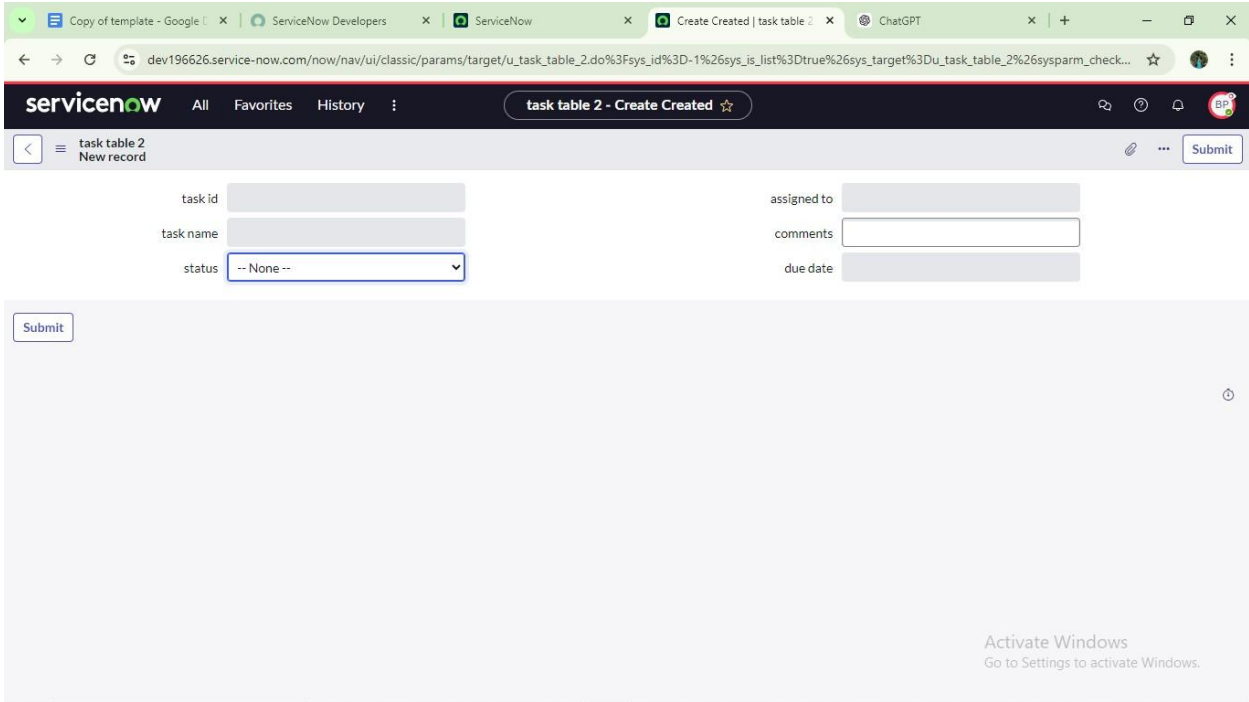
12. Click on profile on top right side

13. Click on impersonate user

14. Select bob user

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

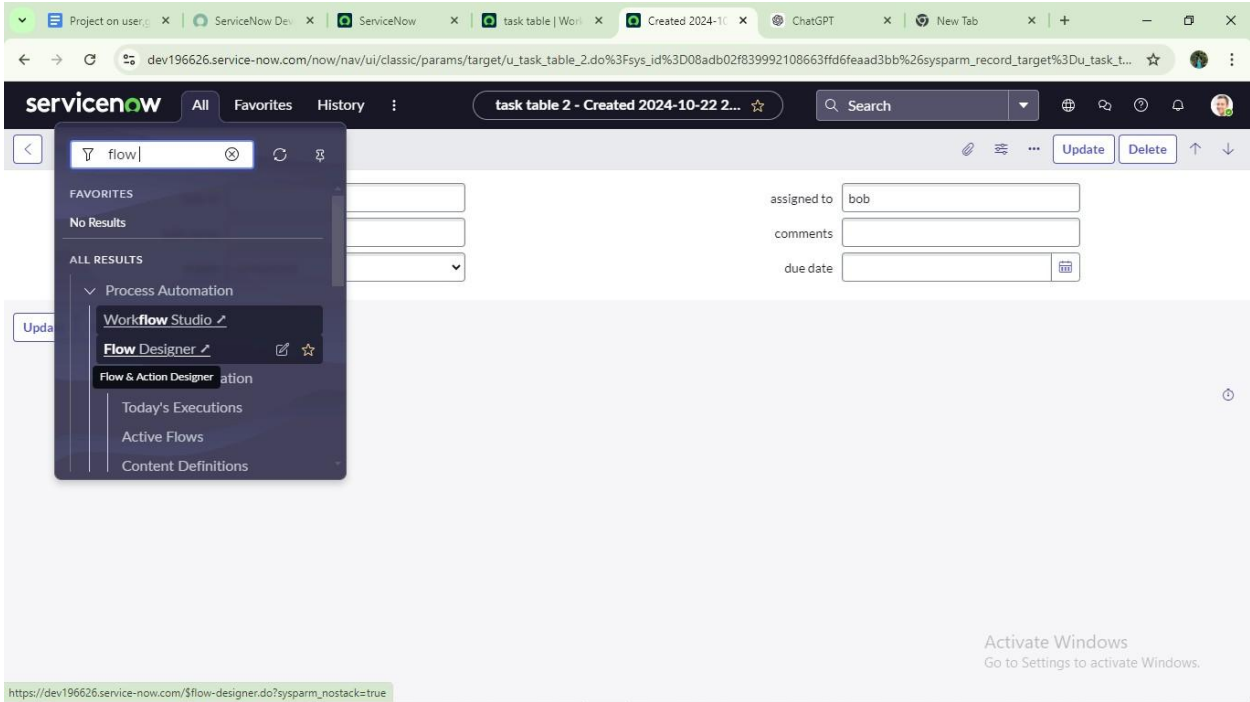
16. Comment and status fields have the edit access



Milestone 9: Flow

Activity 1: Create a Flow to Assign operations ticket to group

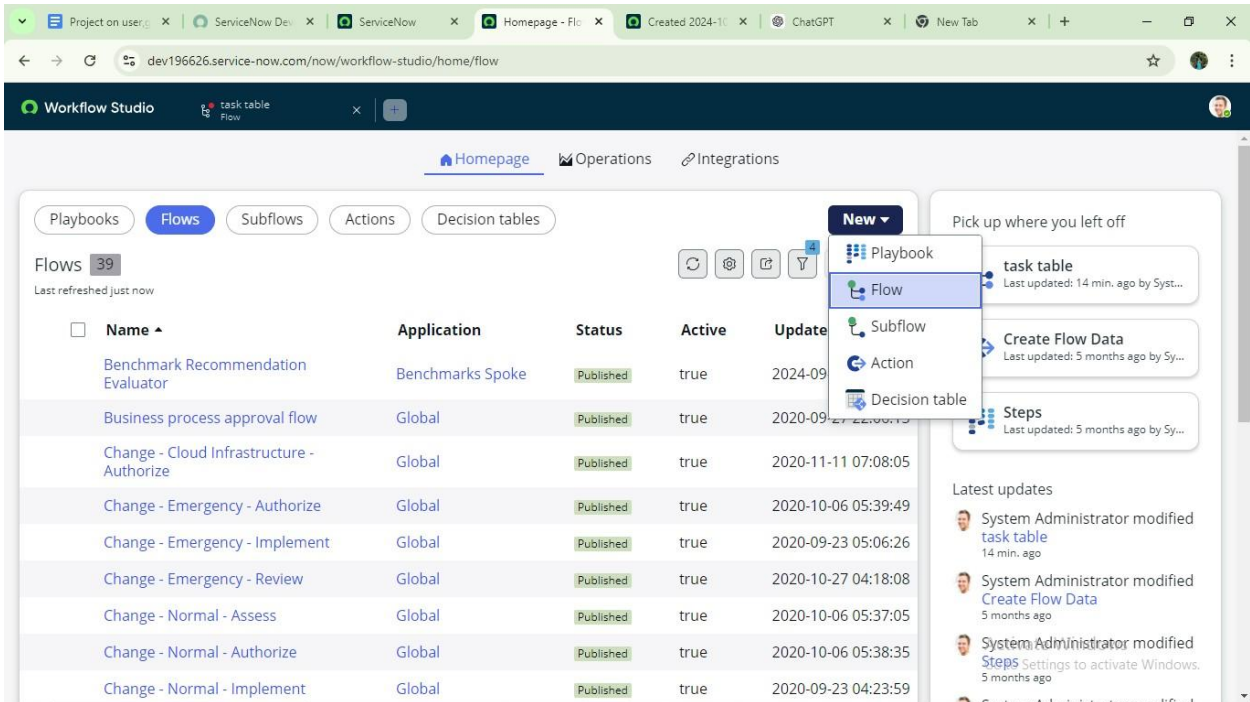
1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ task table”.
6. Application should be Global.
7. Click build flow.



The screenshot shows the ServiceNow 'task table 2' form. A search dropdown is open with the text 'flow' entered. The dropdown shows 'No Results' under 'FAVORITES' and a list of 'ALL RESULTS' under 'Process Automation':

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

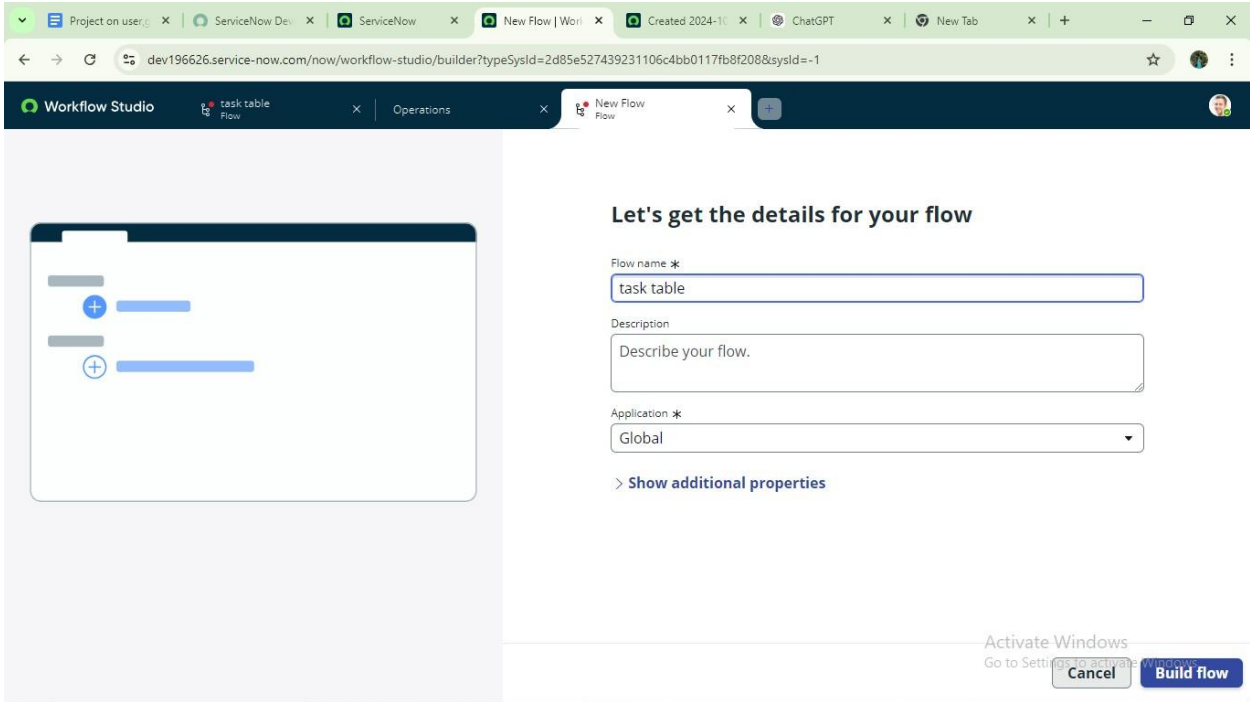
The form fields include 'assigned to' (bob), 'comments', and 'due date'. The URL bar shows 'dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6fead3bb%26sysparm_record_target%3Du_task_t...'. An 'Activate Windows' watermark is visible at the bottom right.



The screenshot shows the ServiceNow Workflow Studio 'Flows' list. The 'New' dropdown is open, showing options: Playbook, Flow, Subflow, Action, and Decision table. The 'Flows' list table is as follows:

Name	Application	Status	Active	Update
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

On the right, the 'Pick up where you left off' section shows recent updates for 'task table', 'Create Flow Data', and 'Steps'. The 'Latest updates' section shows system administrator modifications.



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

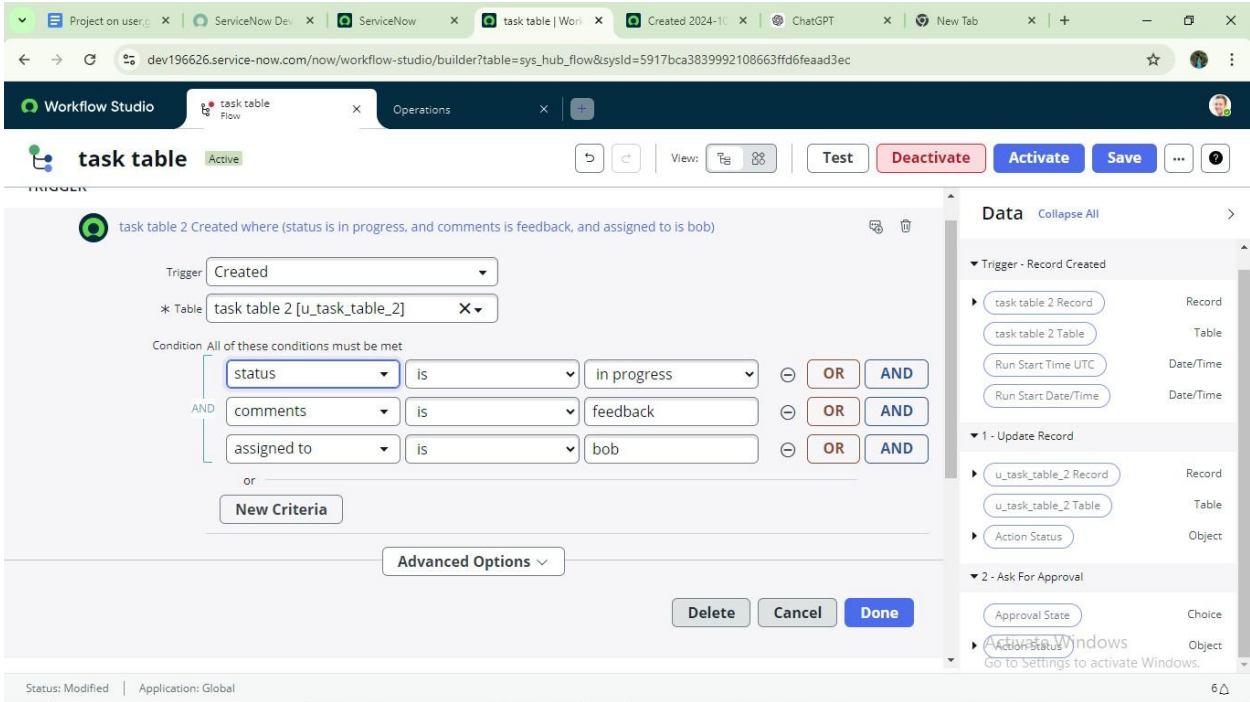
> Show additional properties

Activate Windows
Go to Settings to activate Windows

Cancel Build flow

next step:

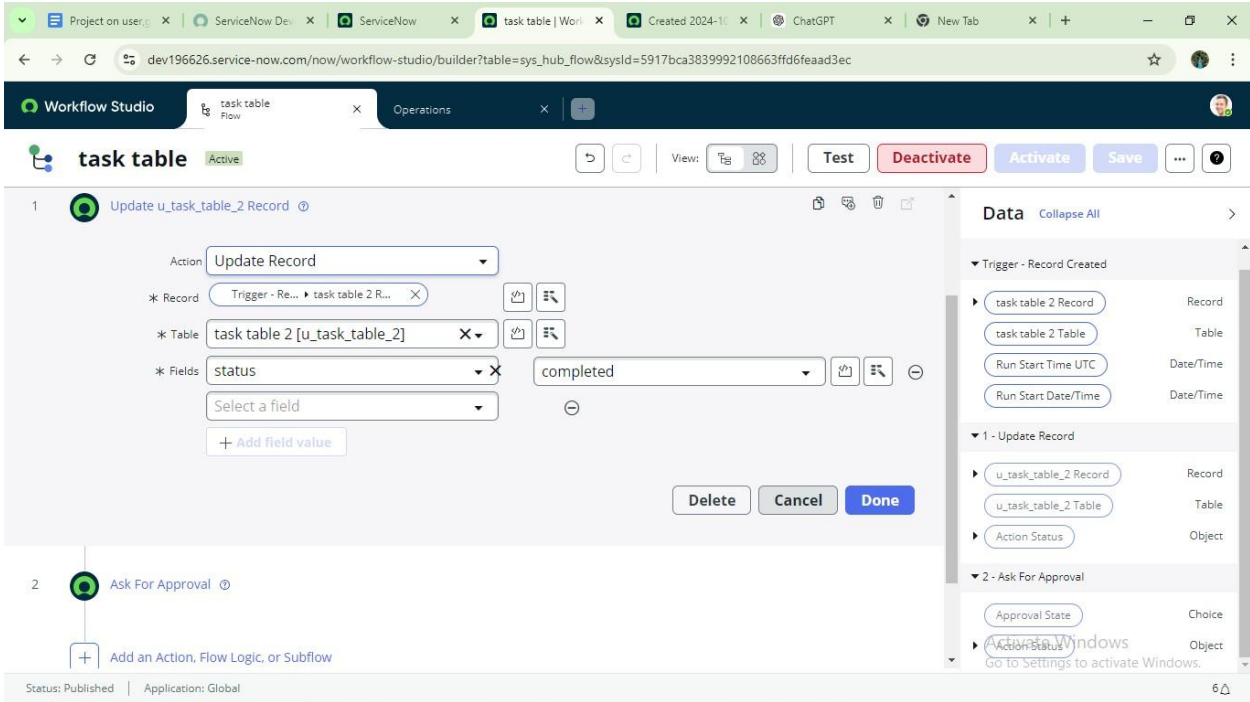
1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress
Field : comments Operator :is Value : feedback
Field : assigned to Operator :is Value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



The screenshot shows the ServiceNow Workflow Studio interface. The main workspace displays a trigger configuration for '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 fields 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'. The bottom status bar indicates 'Status: Modified' and 'Application: Global'.

Next step:

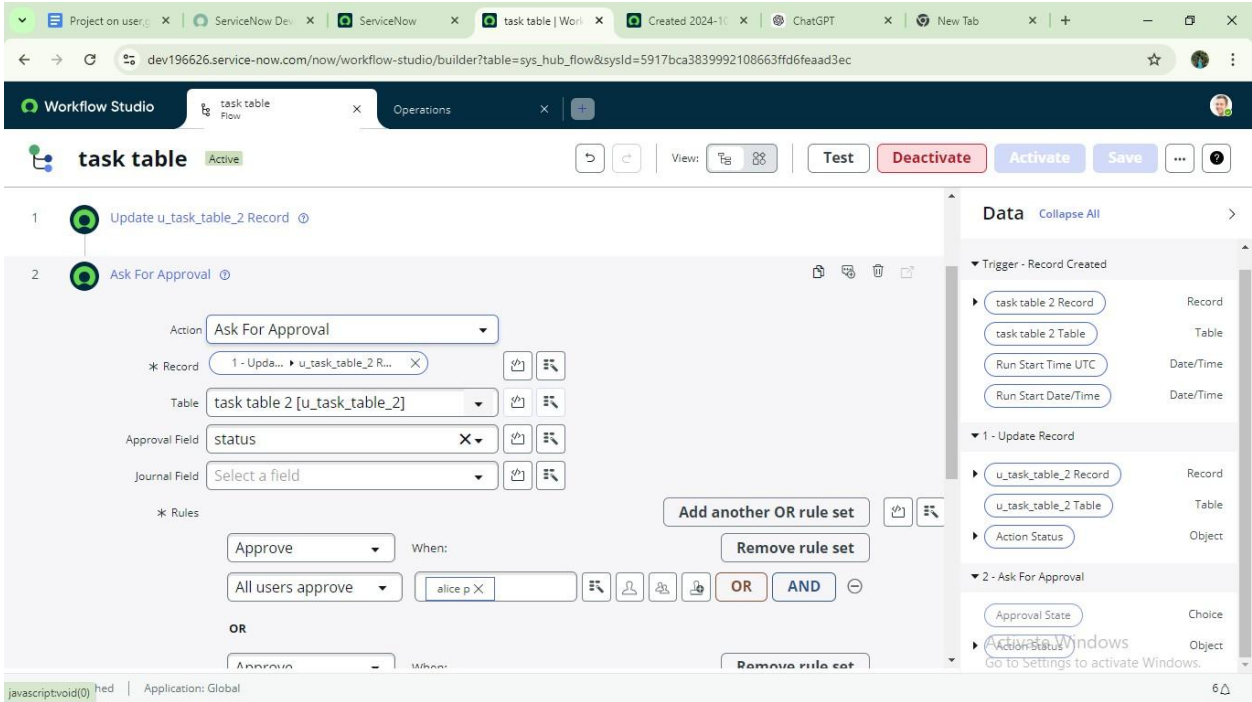
1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.



The screenshot shows the ServiceNow Workflow Studio interface. The main workspace displays the configuration for an 'Update Record' action. The 'Record' field is set to 'Trigger - Record' (task table 2 R...). The 'Table' field is set to 'task table 2 [u_task_table_2]'. The 'Fields' field is set to 'status', and the 'Value' field is set to 'completed'. The 'Data' panel on the right shows the data structure for the workflow, including 'Trigger - Record Created', '1 - Update Record', and '2 - Ask For Approval'. The 'Ask For Approval' action is currently selected, showing its configuration fields: 'Approval State' (Choice) and 'Action Status' (Object).

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.



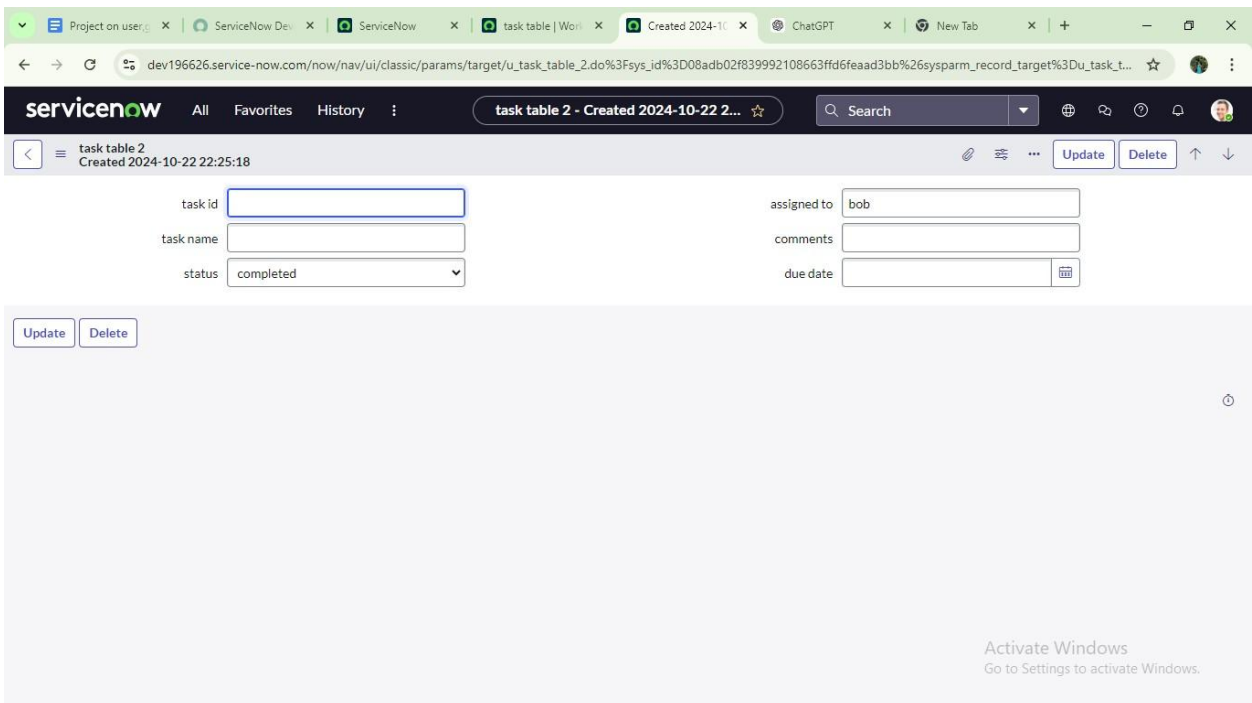
The screenshot shows the ServiceNow Workflow Studio interface for a workflow named 'task table'. The workflow is currently 'Active'. The main canvas displays two steps:

- Update u_task_table_2 Record**: This 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**: A rule set is defined with the condition 'Approve' and 'All users approve'.
- Ask For Approval**: This step is currently empty.

On the right side, the **Data** pane shows the data context for the workflow, including triggers and data objects for each step.

9.Go to application navigator search for task table.

10.It status field is updated to completed

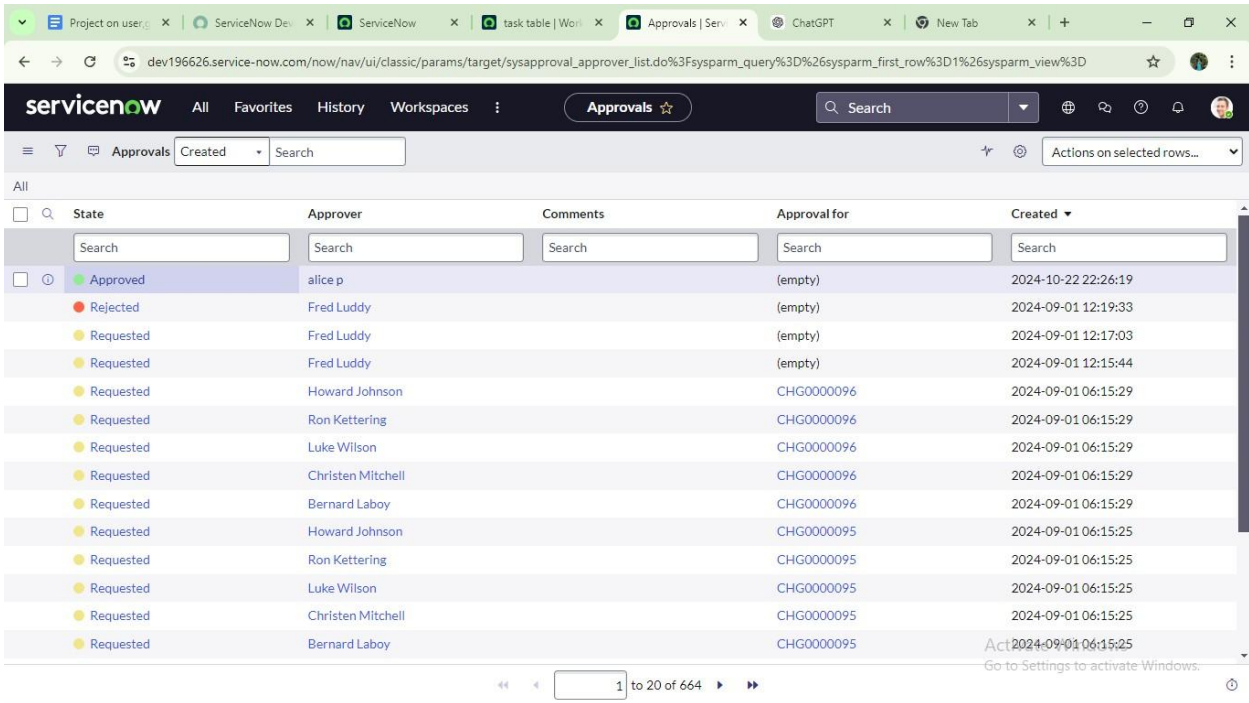


The screenshot shows the ServiceNow application navigator interface. The top navigation bar includes the 'servicenow' logo and a search bar. The main content area displays the record for 'task table 2', created on 2024-10-22 22:25:18. The record details are as follows:

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

At the bottom of the record details, there are 'Update' and 'Delete' buttons. An 'Activate Windows' watermark is visible in the bottom right corner.

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' for 'alice p' on '2024-10-22 22:26:19'. Other rows show 'Requested' status for various approvers like Fred Luddy, Howard Johnson, Ron Kettering, Luke Wilson, Christen Mitchell, and Bernard Laboy, all dated '2024-09-01'.

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.