



**Sridevi Arts & Science
College Ponneri**

PROJECT NAME: OPTIMIZING USER, GROUP, AND ROLE MANAGEMENT
WITH ACCESS CONTROL AND WORKFLOWS USING SERVICENOW

TEAM ID: NM2025TMID19652

A PROJECT REPORT

Submitted by

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SEPTEMBER-2025

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.

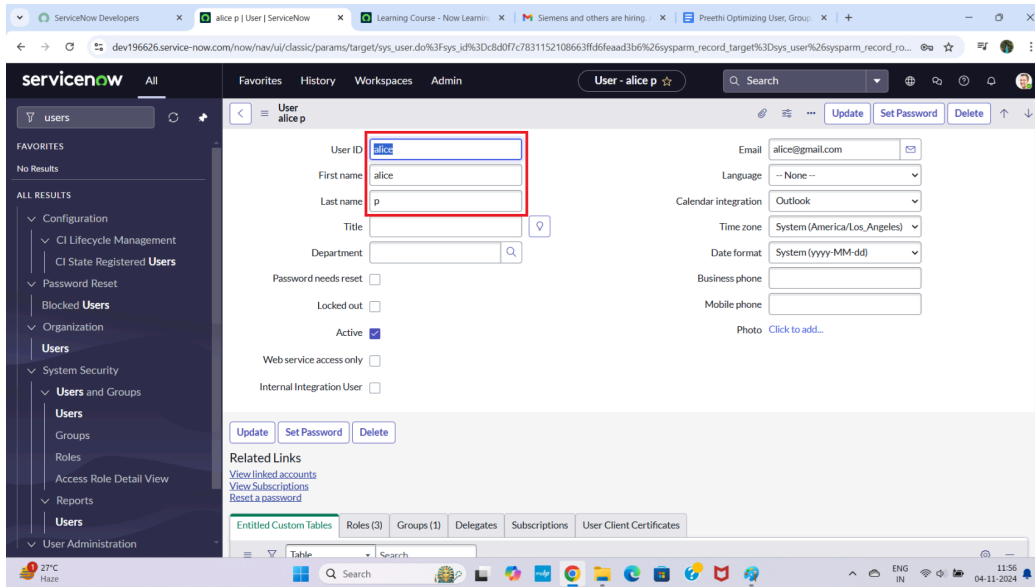
Skills: Users, Groups, Roles, Tables, Access Control List, Flow Designer

TASK INITIATION

Milestone 1 : Users

Activity 1: Create Users

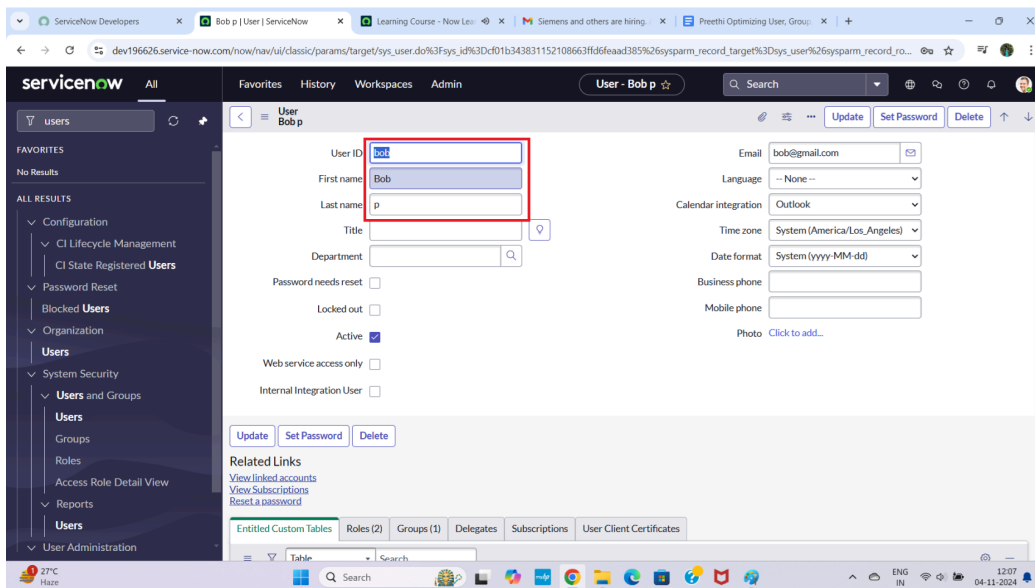
1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit



The screenshot shows the ServiceNow User Administration interface for a user named 'alice p'. The left sidebar contains a navigation menu with options like 'users', 'Configuration', 'Lifecycle Management', 'Password Reset', 'Blocked Users', 'Organization', 'Users', 'System Security', 'Users and Groups', 'Groups', 'Roles', 'Access Role Detail View', 'Reports', and 'User Administration'. The main content area displays the user's details, including User ID (alice), First name (alice), Last name (p), Title, Department, Email (alice@gmail.com), Language, 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 also 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 for 'View linked accounts', 'View Subscriptions', and 'Reset a password'.

Create one more user:

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

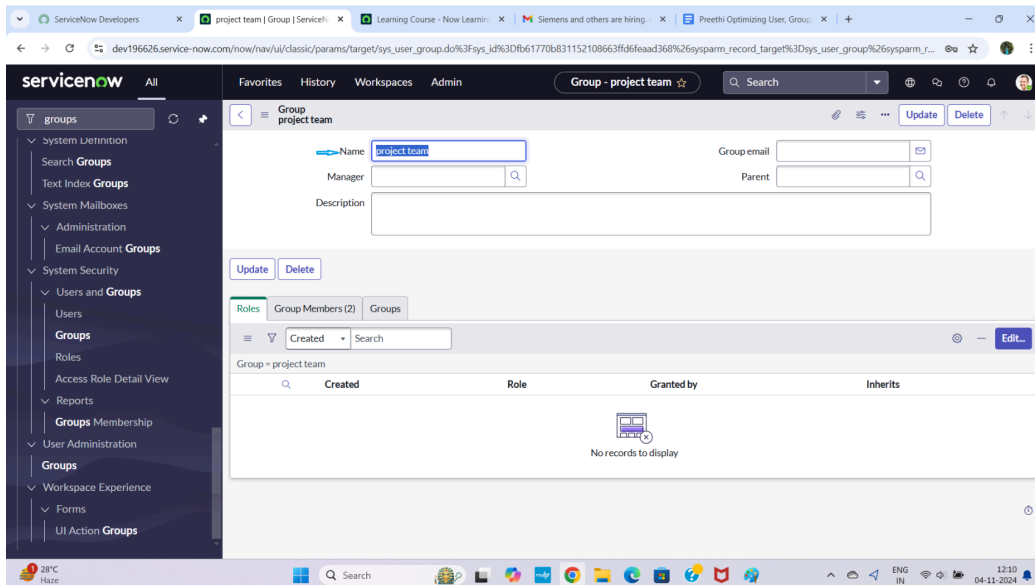


The screenshot shows the ServiceNow User Administration interface for a user named 'Bob p'. The left sidebar contains a navigation menu with options like 'users', 'Configuration', 'Lifecycle Management', 'Password Reset', 'Blocked Users', 'Organization', 'Users', 'System Security', 'Users and Groups', 'Groups', 'Roles', 'Access Role Detail View', 'Reports', and 'User Administration'. The main content area displays the user's details, including User ID (Bob), First name (Bob), Last name (p), Title, Department, Email (bob@gmail.com), Language, 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 also 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 for 'View linked accounts', 'View Subscriptions', and 'Reset a password'.

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



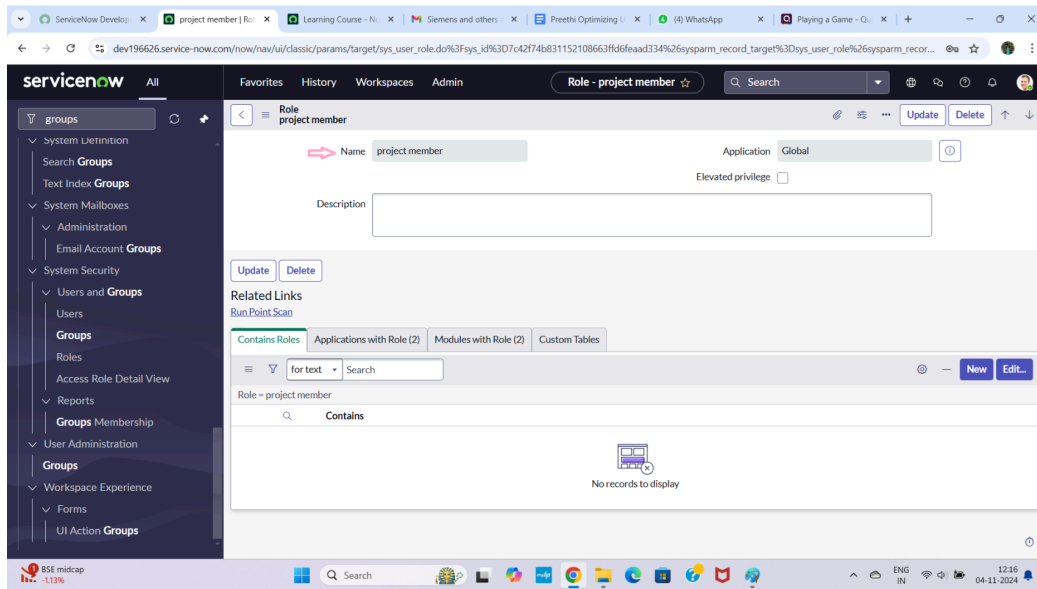
The screenshot shows the ServiceNow 'Group - project team' form. The left sidebar contains a navigation menu with categories like System Definition, System Mailboxes, System Security, Users and Groups, Roles, Reports, Groups Membership, User Administration, Workspace Experience, Forms, and UI Action Groups. The main form area has fields for Name (filled with 'project team'), Manager, Group email, Parent, and Description. Below these fields are 'Update' and 'Delete' buttons. A section titled 'Roles' shows 'Group Members (2)' and 'Groups' tabs. A table with columns 'Created', 'Role', 'Granted by', and 'Inherits' is displayed, showing '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:

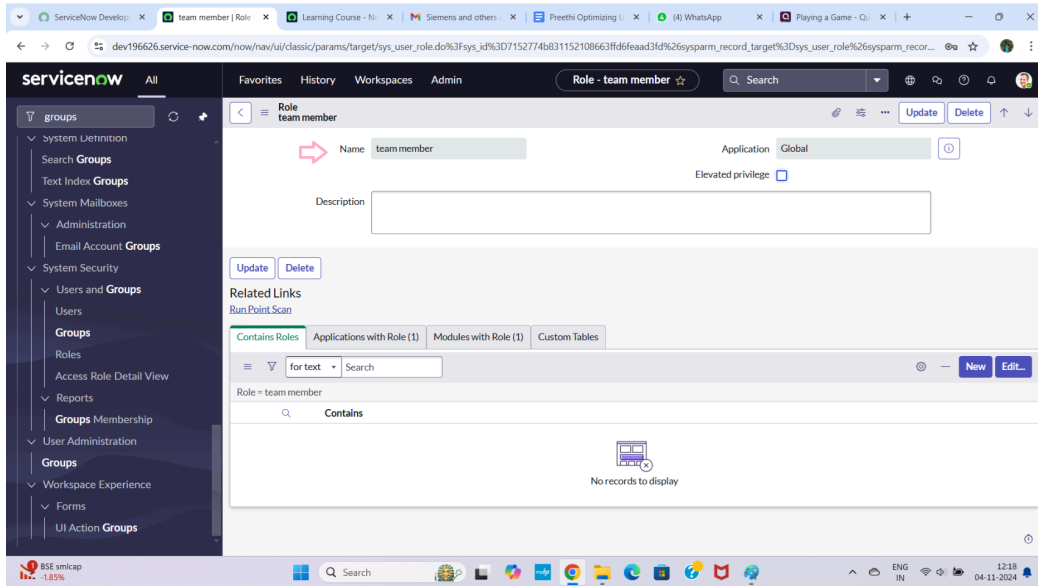
7. Create another role with the following details

8. Click on submit

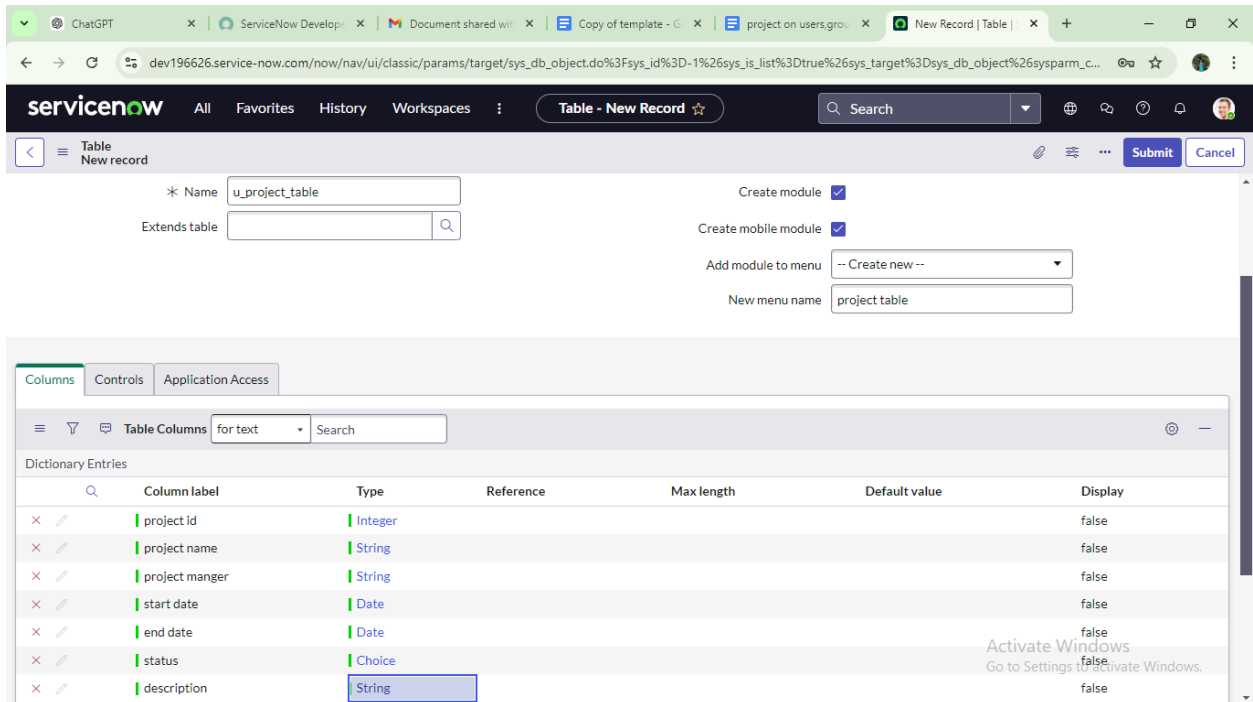
Milestone 4 : Table

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



8. Click on submit



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%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 | 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... | | | | | |

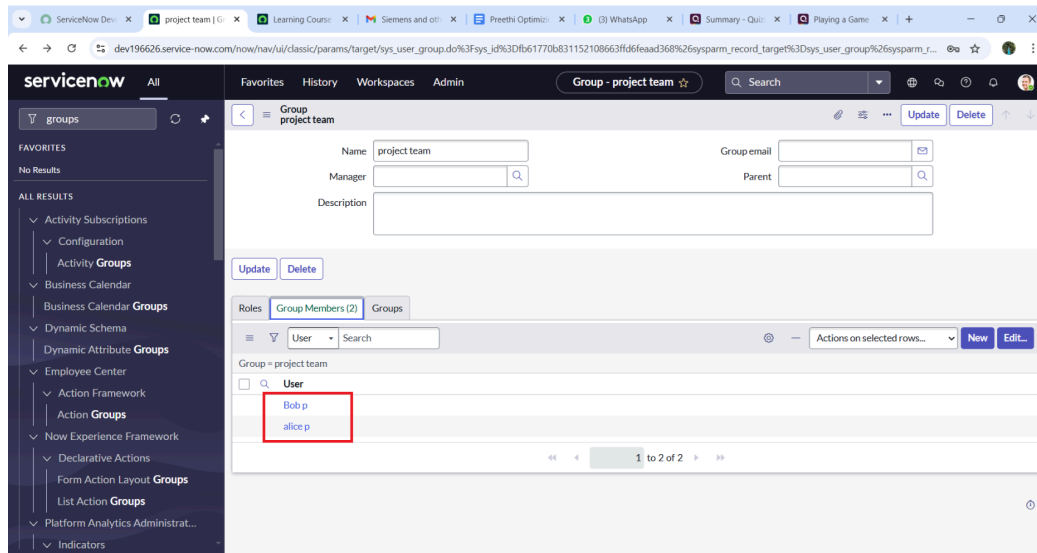
Activate Windows
Go to Settings to activate Windows

Delete Update Delete All Records

Milestone 5 : Assign users to groups

Activity 1: Assign users to project team group

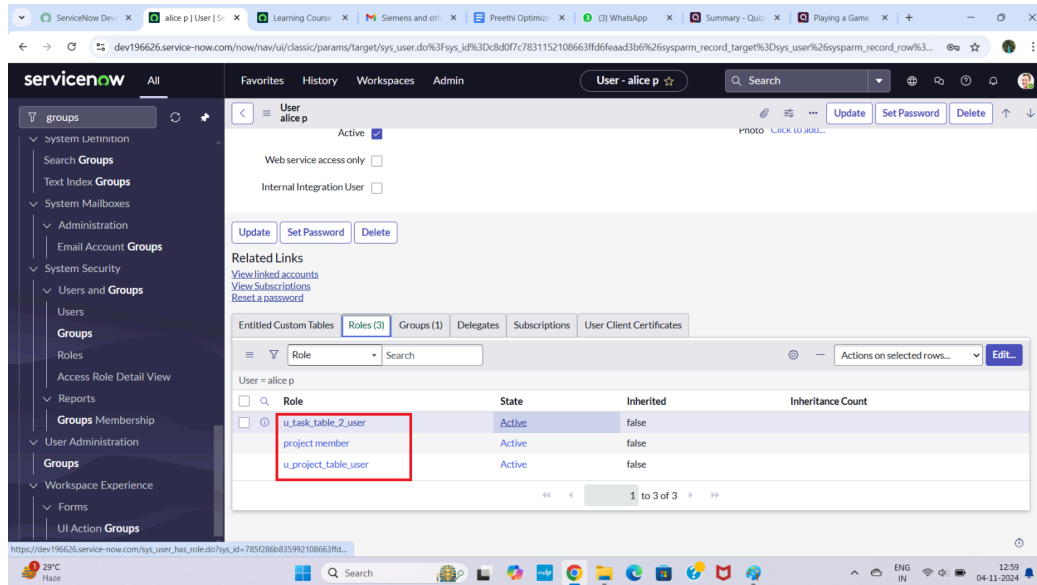
1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



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.

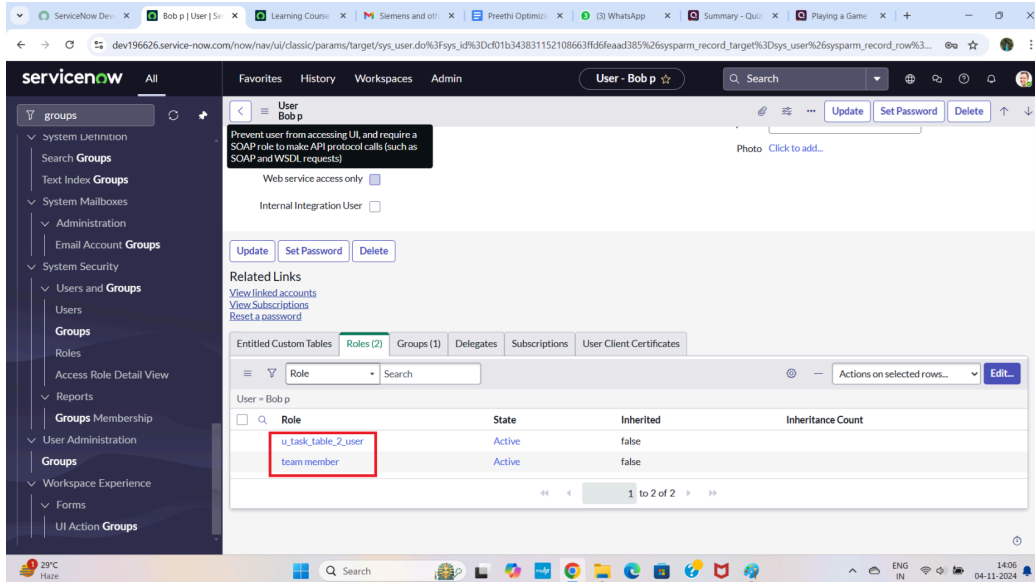


The screenshot shows the ServiceNow user management interface. The user 'alice p' is selected, and the 'Roles' tab is active. The table below lists the roles assigned to the user:

| 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 Admin Console - User Administration - 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 : 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 project member

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

Category

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

Hint

Description

Update Delete

Activate Windows
Go to Settings to activate Windows.

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%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 u_task_table_2_user, project member, team member

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

Category

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

Hint

Description

Update Delete

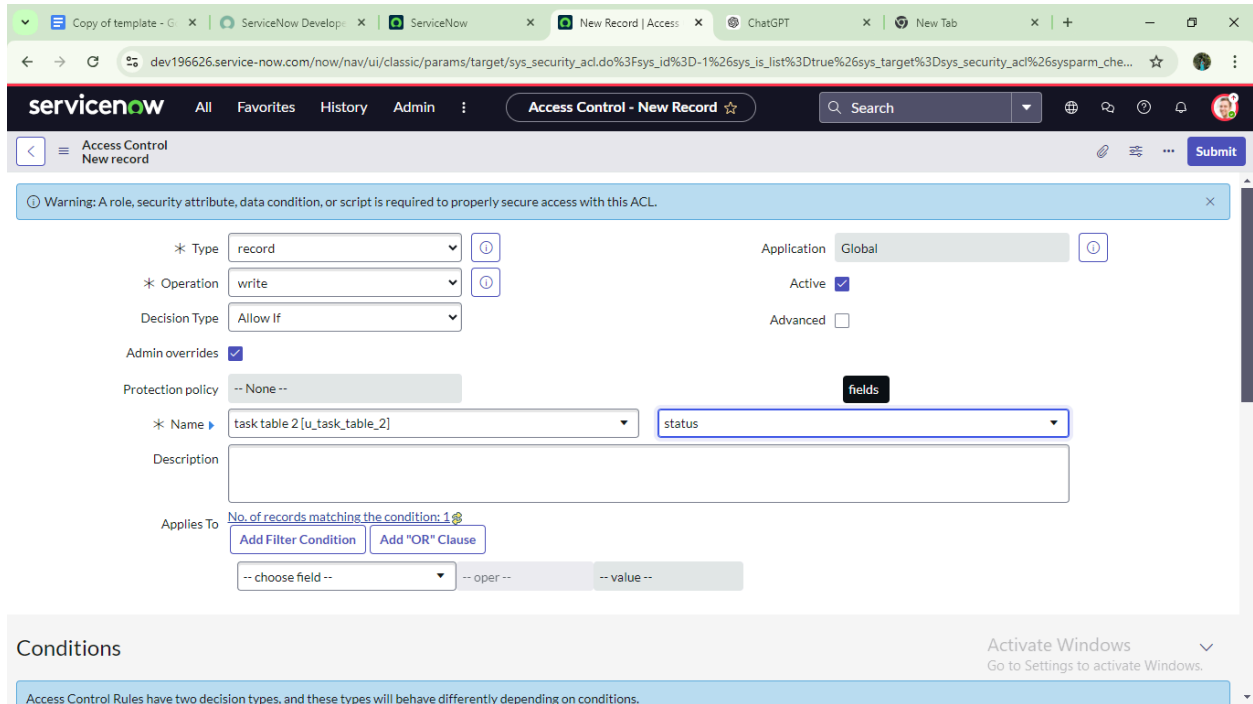
Activate Windows
Go to Settings to activate Windows.

Modules Order Search 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]

Description:

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

Add Filter Condition Add "OR" Clause

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

Conditions

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

6. Fill 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 Access Controls

Access Controls

Name

Search

Actions on selected rows...

New

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 |

Activate Windows
Go to Settings to activate Windows.

1 to 20 of 23

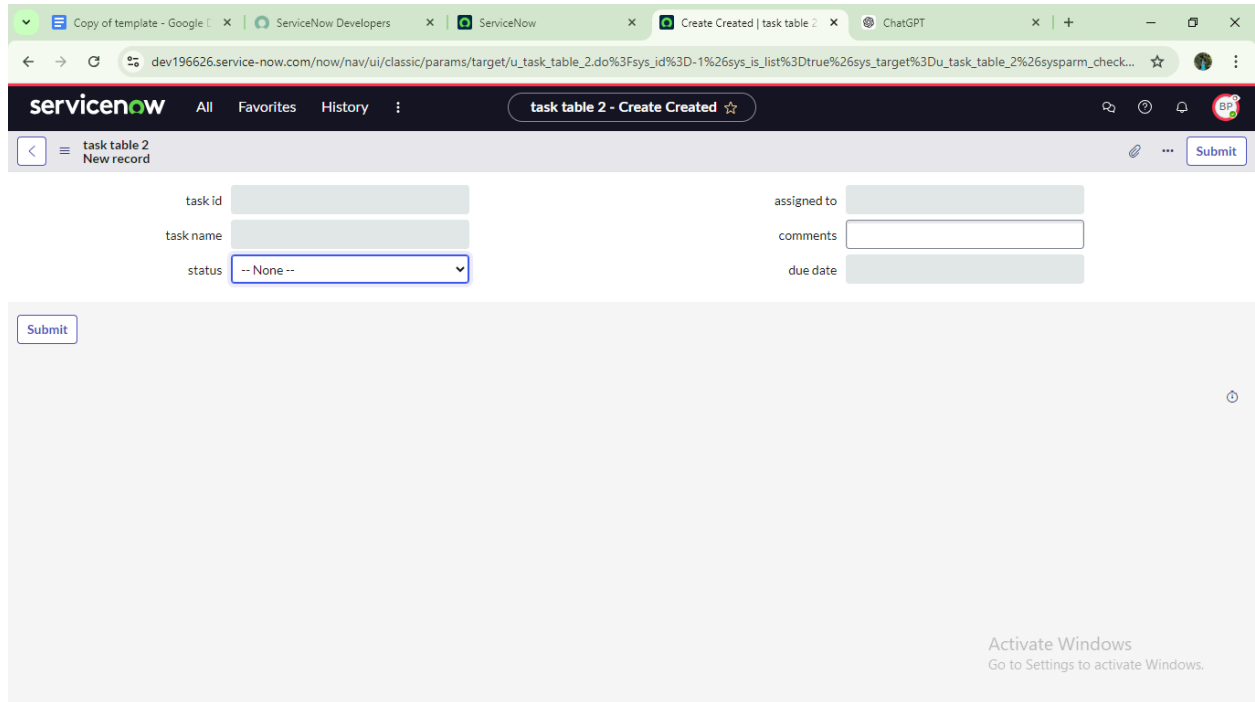
12. Click on profile on top right side

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



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 shows 'task table 2 - Create Created' with a star icon. The left sidebar shows 'task table 2' and 'New record'. The main form has the following fields:

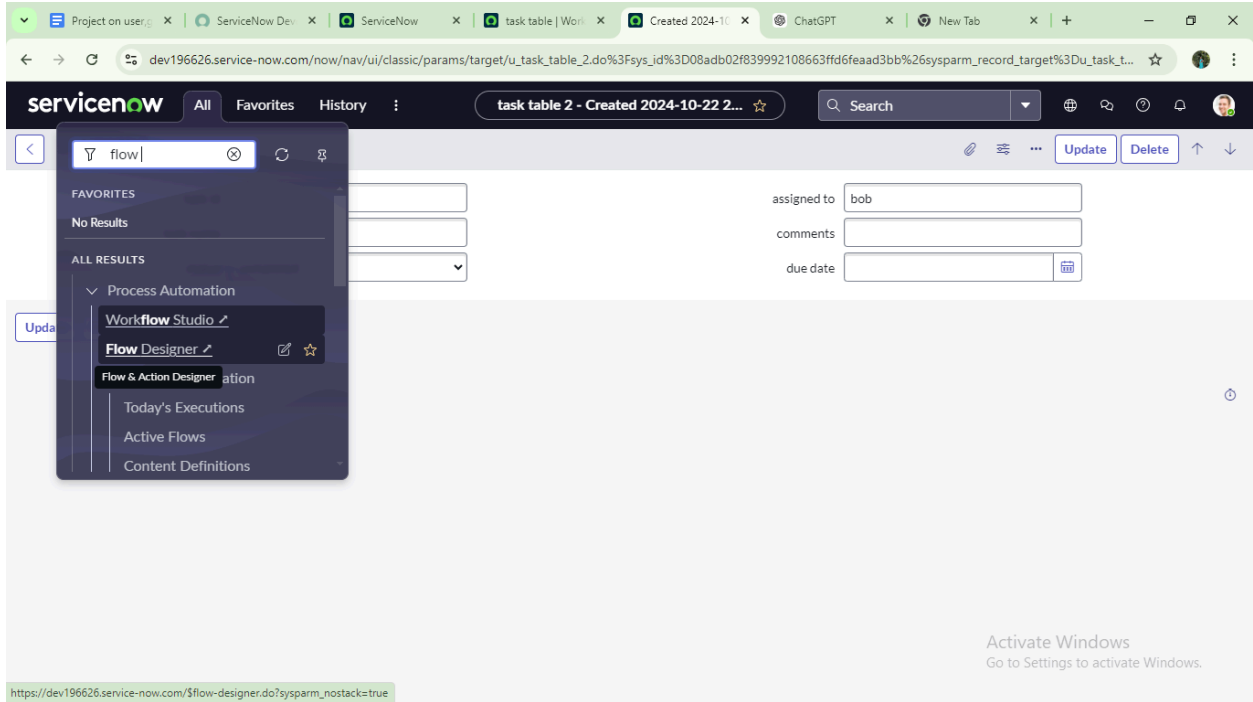
- task id:
- task name:
- status:
- assigned to:
- comments:
- due date:

There is a 'Submit' button at the bottom left of the form area. An 'Activate Windows' watermark is visible at the bottom right of the browser window.

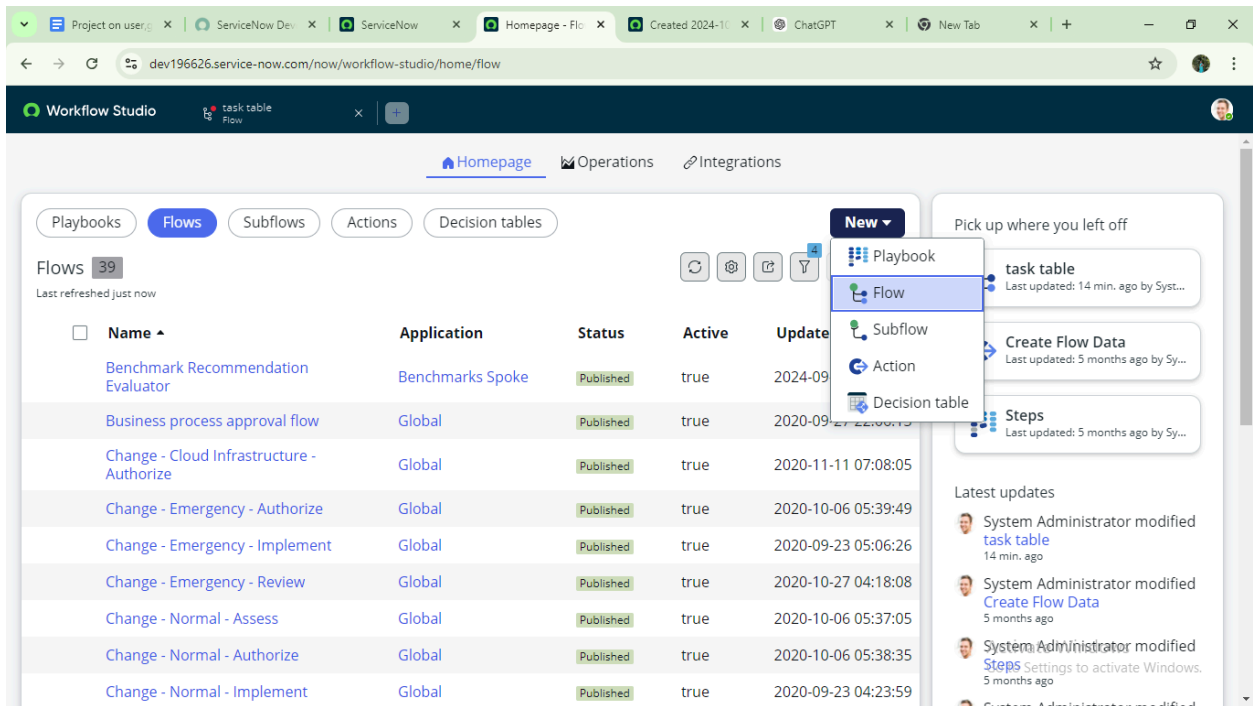
Milestone 9: Flow

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.



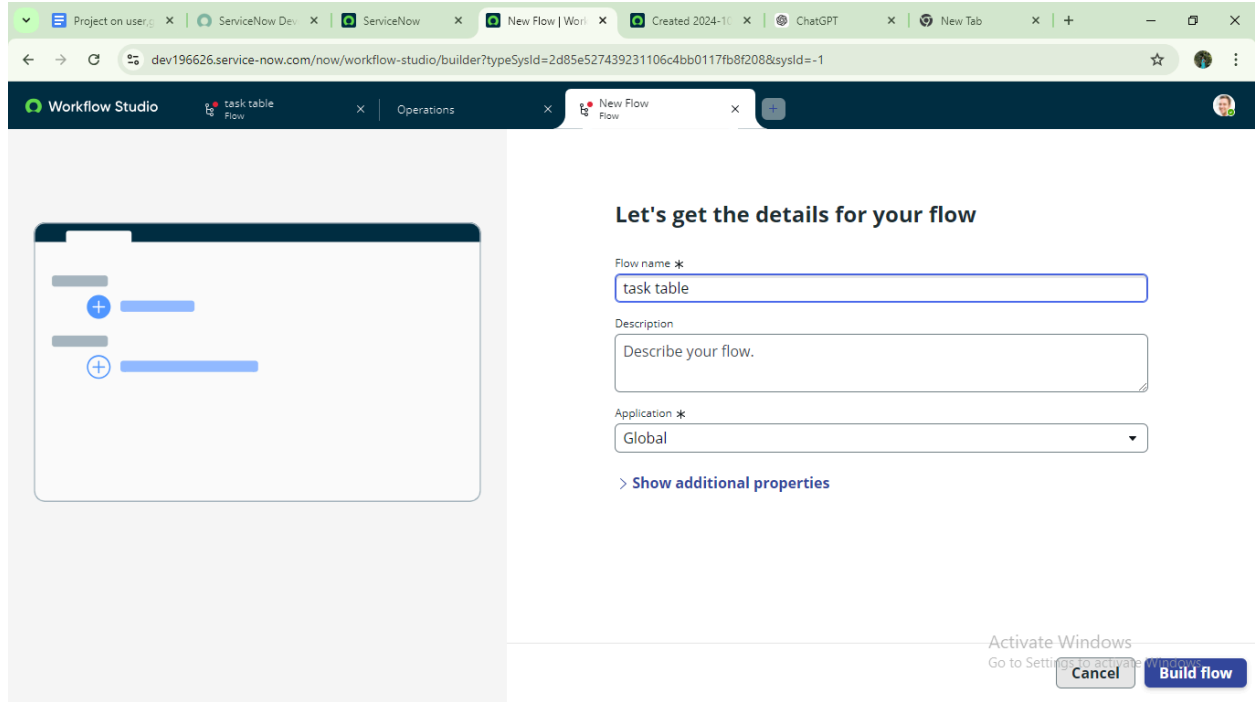
The screenshot shows the ServiceNow interface with a search bar containing 'flow'. A dropdown menu is open, showing 'No Results' under 'FAVORITES' and 'ALL RESULTS'. Under 'ALL RESULTS', there is a section for 'Process Automation' with links to 'Workflow Studio', 'Flow Designer', and 'Flow & Action Designer'.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

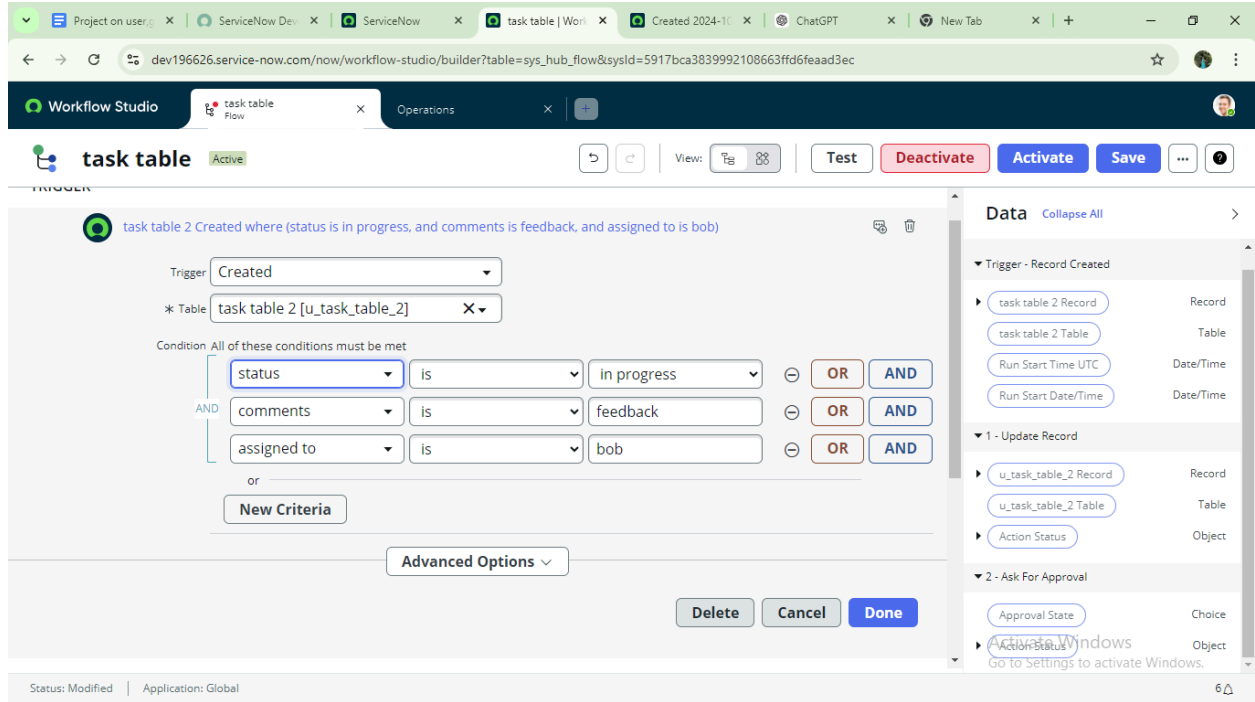
| Name | Application | Status | Active | Updated |
|---|------------------|-----------|--------|---------------------|
| Benchmark Recommendation Evaluator | Benchmarks Spoke | Published | true | 2024-09-23 04:23:59 |
| Business process approval flow | Global | Published | true | 2020-09-23 04:23:59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



next step:

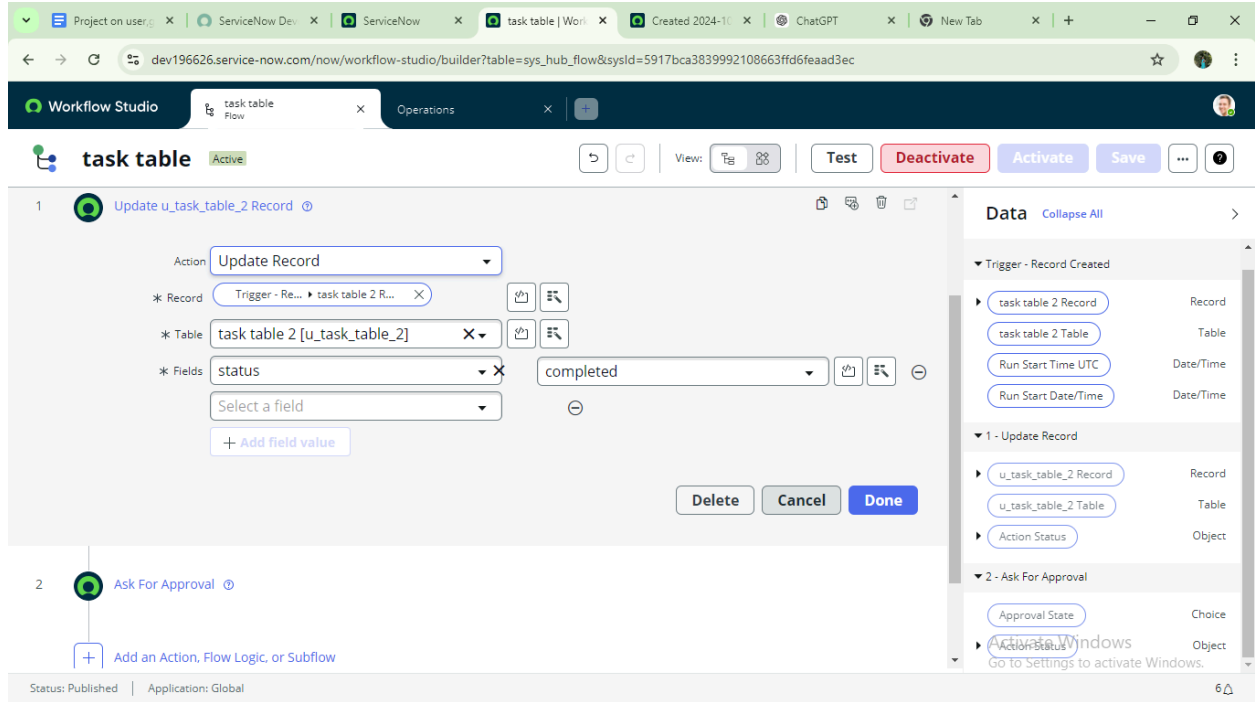
1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress
Field : comments Operator :is Value : feedback
Field : assigned to Operator :is Value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



The screenshot shows the ServiceNow Workflow Studio interface. The workflow is named "task table 2" and 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 panel 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".

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 step named '1 Update u_task_table_2 Record'. The configuration for this step is as follows:

- Action:** Update Record
- * Record:** Trigger - Re... → task table 2 R...
- * Table:** task table 2 [u_task_table_2]
- * Fields:** status (selected), completed (selected in the adjacent dropdown)

Buttons at the bottom of the configuration area include 'Delete', 'Cancel', and 'Done'. A '+ Add field value' button is also present.

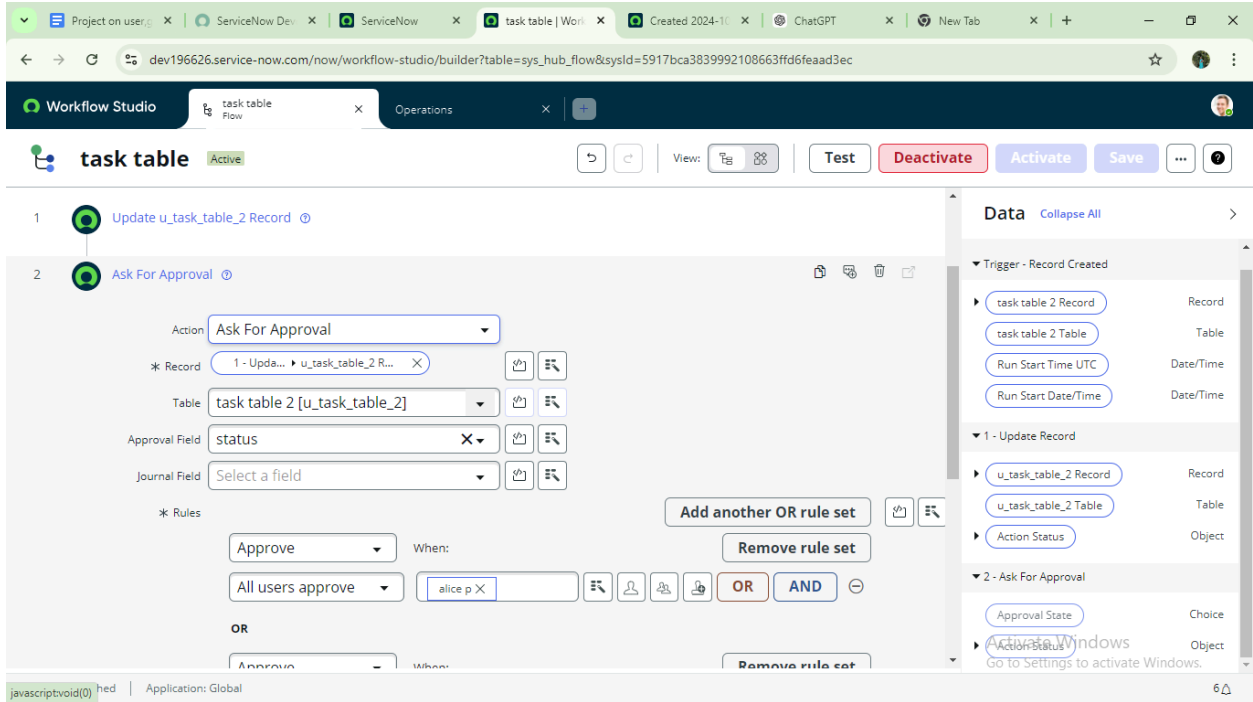
On the right side, the 'Data' panel is expanded, showing a tree view of the workflow's data structure:

- 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.



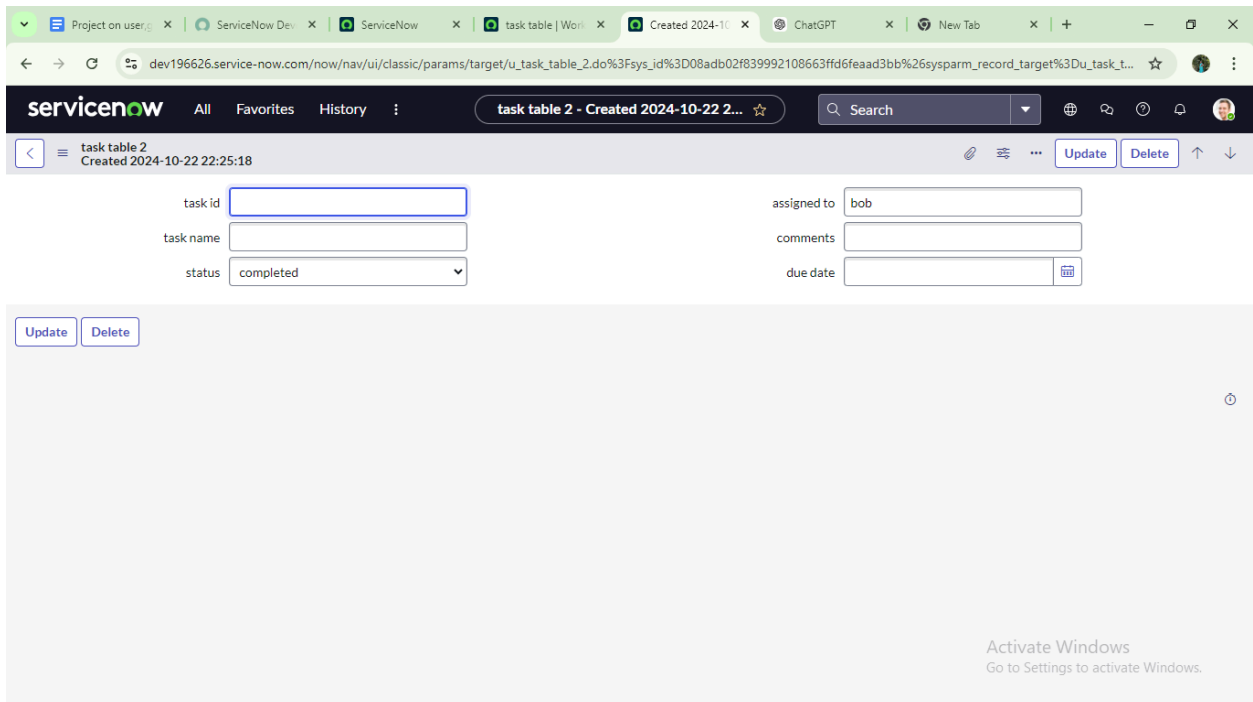
The screenshot shows the ServiceNow Workflow Studio interface for a workflow named 'task table'. The workflow is currently 'Active'. It consists of two steps:

- Update u_task_table_2 Record**: This step is connected to the second step.
- Ask For Approval**: This step is configured with the following details:
 - Action**: Ask For Approval
 - Record**: 1 - Update... u_task_table_2 R...
 - 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 'All users approve' and the action 'Approve'.

The right-hand pane shows the 'Data' section, which lists the variables used 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'.

9.Go to application navigator search for task table.

10.It status field is updated to completed

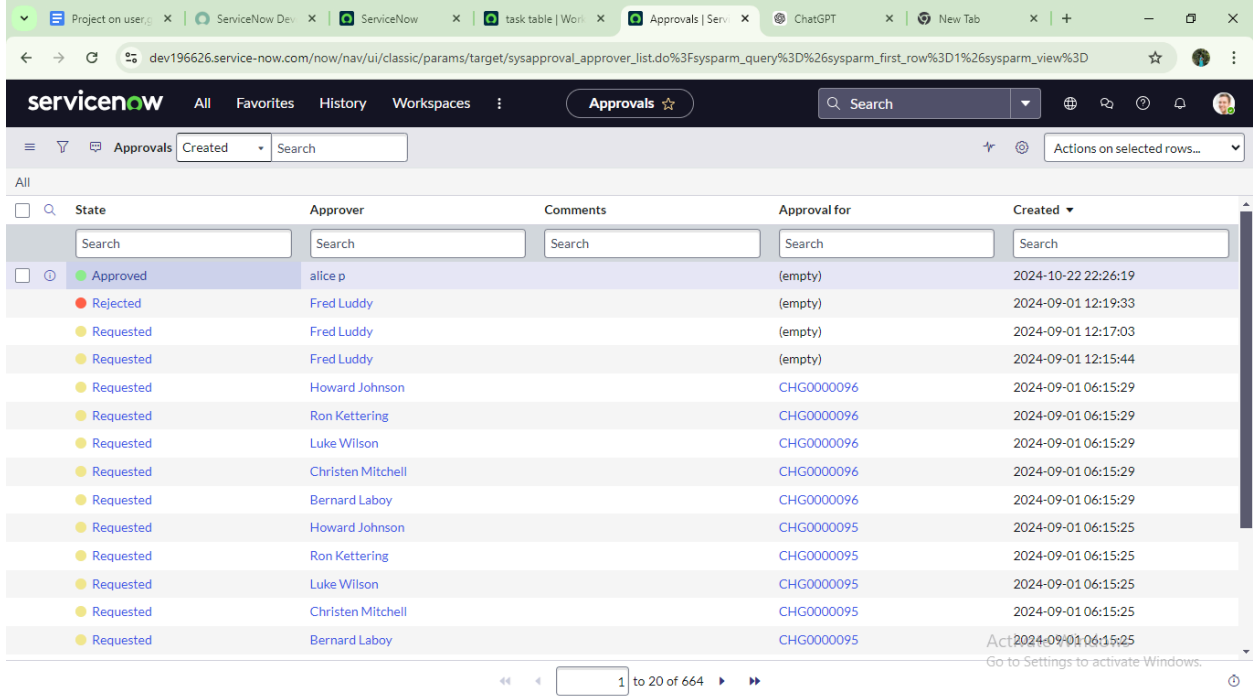


The screenshot shows the ServiceNow application navigator interface for the 'task table 2' record. The record is displayed with the following fields:

- task id**: [Empty field]
- task name**: [Empty field]
- status**: completed
- assigned to**: bob
- comments**: [Empty field]
- due date**: [Empty field]

The record is displayed with the 'Update' and 'Delete' buttons. The status field is set 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



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'. Subsequent rows show 'Rejected' and 'Requested' states for different approvers and request IDs.

| 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.