

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

Team ID : NM2025TMID17538 Team

Size : 4 Team Leader : CHANDRU.S

Team member : KARTHIK.M

Team member : SARAN. M

Team member : SUNDARRAJAN. K

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.

Objectives:

The project aims to optimize user, group, and role management by establishing a secure and scalable access control framework integrated with automated workflows. It seeks to simplify the administration of user accounts, streamline group assignments, and enforce role-based access policies to minimize security risks. By implementing centralized controls and approval-driven workflows, the system ensures that access rights are granted appropriately, updated efficiently, and revoked promptly when necessary. Ultimately, the objective is to enhance operational efficiency, strengthen data security, and provide organizations with greater visibility and governance over user access across systems and applications.

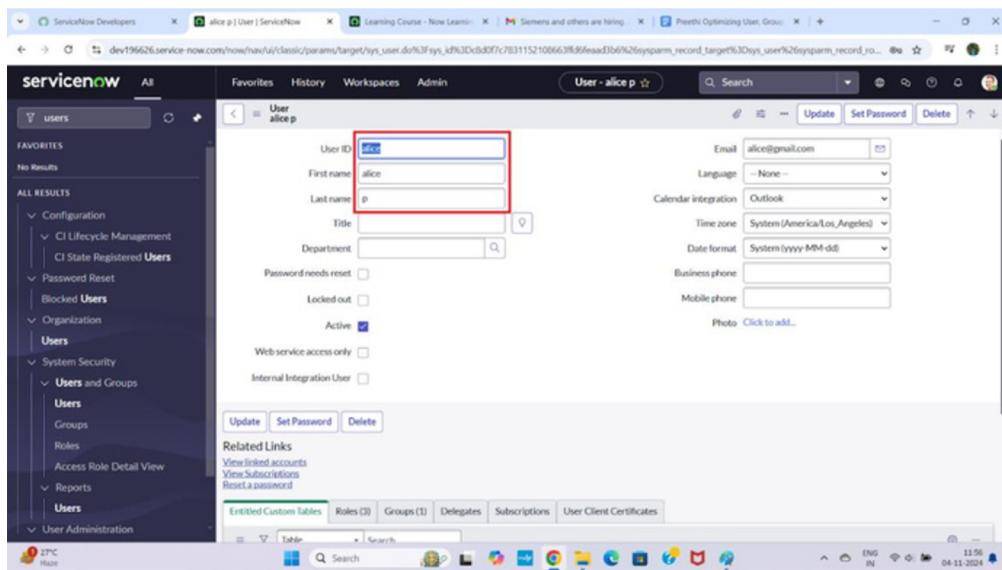
Skills:

1. Oracle DB

Milestone1

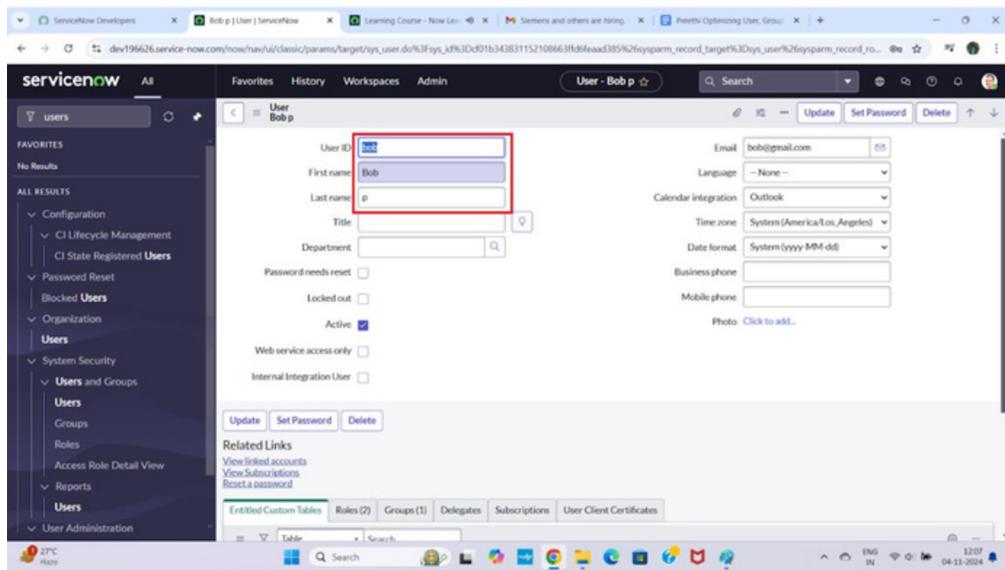
Create Users

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:

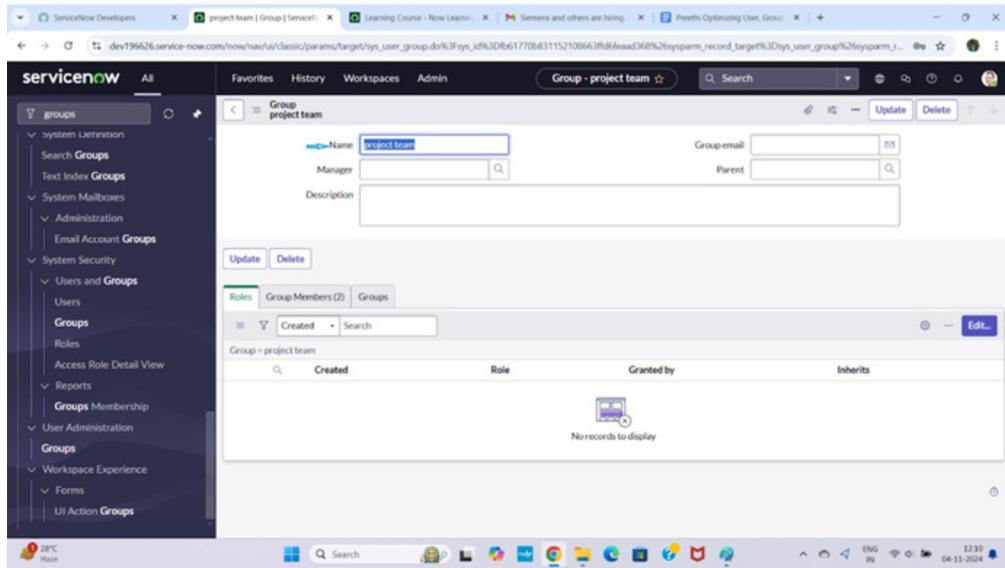
7. Create another user with the following details
8. Click on submit



Milestone 2

Create Groups

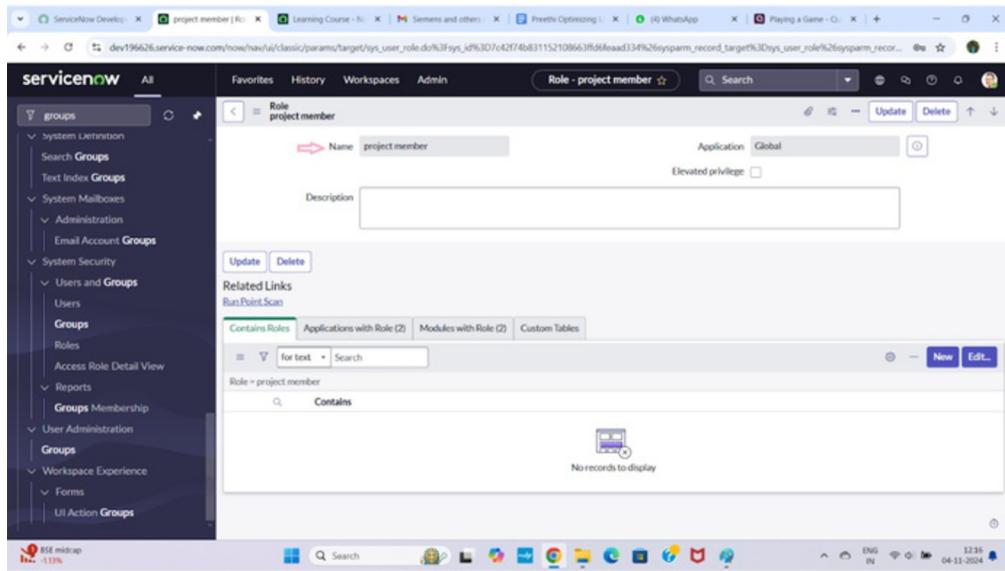
1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit



Milestone 3

Create Roles

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



Create one more role:

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

Milestone 4

Create Table

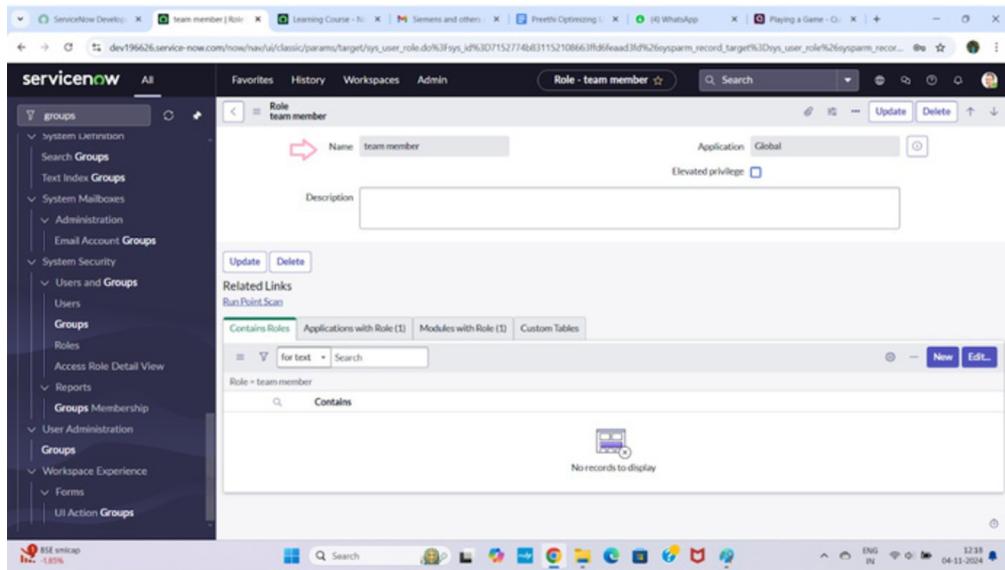
1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new
5. Fill the following details to create a new table

Label : project table

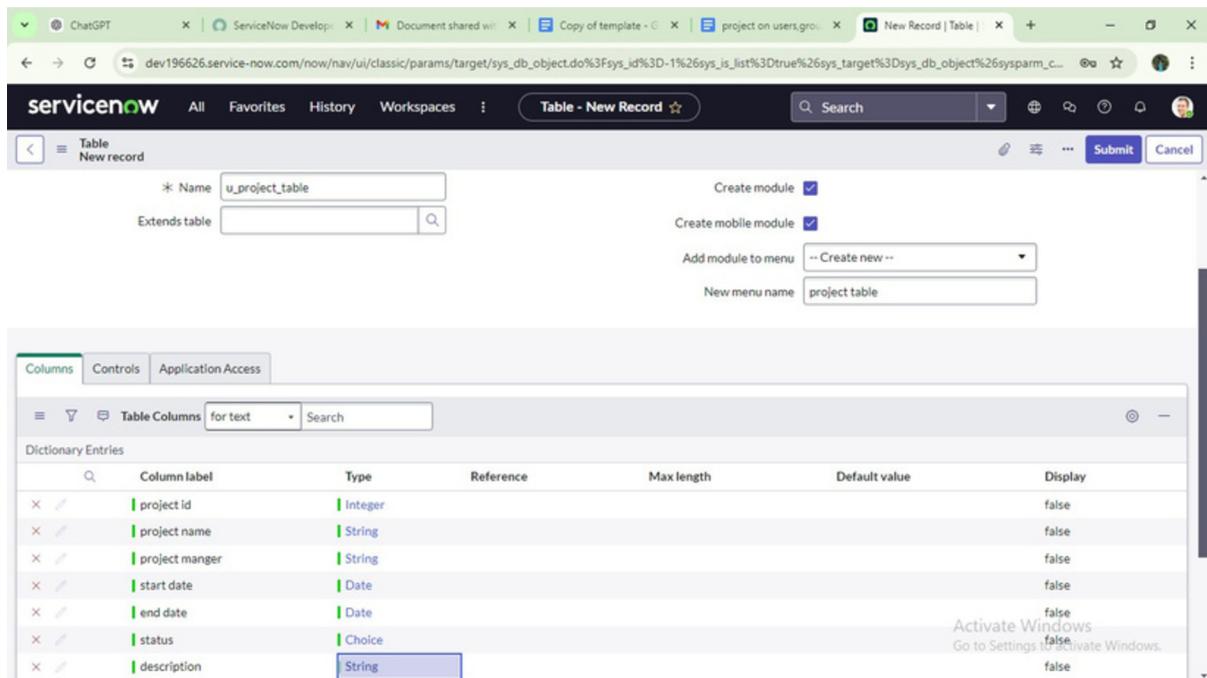
Check the boxes Create module & Create mobile module

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.

The screenshot shows the ServiceNow interface for creating a new table named 'task table 2'. The table has the following columns:

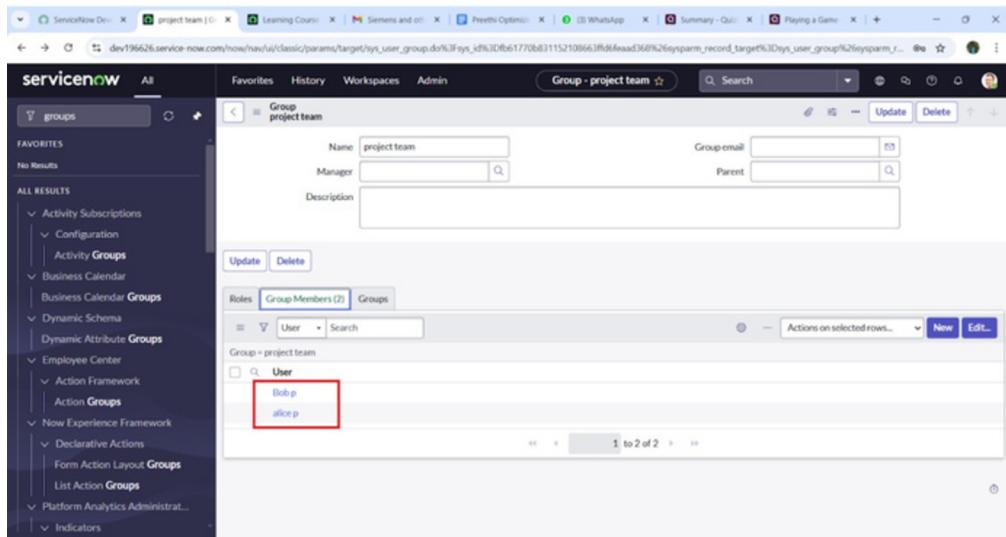
| Column label | Type | Reference | Max length | Default value | Display |
|--------------|---------------|-----------|------------|---------------|---------|
| Updated by | String | (empty) | 40 | false | false |
| Updates | Integer | (empty) | 40 | false | false |
| Updated | Date/Time | (empty) | 40 | false | false |
| Sys ID | Sys ID (GUID) | (empty) | 32 | false | false |
| Created by | String | (empty) | 40 | false | false |
| Created | Date/Time | (empty) | 40 | false | false |
| task id | Integer | | | | false |
| task name | String | | | | false |
| assigned to | String | | | | false |
| due date | Date | | | | false |
| status | Choice | | | | false |
| comments | String | | | | false |

At the bottom of the table configuration screen, there are buttons for 'Delete', 'Update', and 'Delete All Records'.

Milestone 5

Assign users to project team group

1. 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 alice user

1. 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 interface for managing user roles. The left sidebar navigation includes 'System Definition', 'Administration', 'Users and Groups', 'Reports', 'User Administration', and 'Forms'. The main content area displays the user profile for 'User - alice p'. Under the 'Roles' tab, three roles are listed:

| Role | State | Inherited | Inheritance Count |
|----------------------|--------|-----------|-------------------|
| u_task_table_2_user | Active | false | |
| project member | Active | false | |
| u_project_table_user | Active | false | |

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 Detail page for a user named 'Bob p'. The left sidebar navigation includes 'System Definition', 'Administration', 'Users and Groups', 'Reports', 'User Administration', and 'Forms'. The main content area displays the user's details, including a note about requiring a SOAP role for API access. Below this are sections for 'Web-service access only', 'Internal Integration User', and 'Related Links' (View linked accounts, View Subscriptions, Reset password). A 'Roles' tab is selected, showing a table with two entries:

| Role | State | Inherited | Inheritance Count |
|--------------------|--------|-----------|-------------------|
| u_task_table2_user | Active | false | |
| team member | Active | false | |

The 'u_task_table2_user' row is highlighted with a red box.

Milestone 7

Assign table access to application

while creating a table it automatically create a application and module for that table

Go to application navigator search for search project table application

Click on edit module

Give project member roles to that application

Search for task table2 and click on edit application.

Give the project member and team member role for task table 2 application

Servicenow Application Menu - project table

Title: project table

Application: Global

Active:

Roles: project member

Category: Custom Applications

Hint:

Description:

Activate Windows
Go to Settings to activate Windows.

Update Delete

Servicenow Application Menu - task table 2

Title: task table 2

Application: Global

Active:

Roles: u_task_table_2_user, project member, team member

Category: Custom Applications

Hint:

Description:

Activate Windows
Actions on selected rows... New

Modules Order Search

Milestone 8

Create ACL

Open service now.

Click on All >> search for ACL

Select Access Control(ACL) under system security

Click on elevate role

Click on new

Fill the following details to create a new ACL

Scroll down under requires role

Double click on insert a new row

Give task table and team member role

Click on submit

Similarly create 4 acl for the following fields

The screenshot shows a ServiceNow Access Controls grid. The columns are: Name, Decision Type, Operation, Type, Active, Updated by, and Updated. The grid contains several rows for the 'u_task_table' and 'u_task_table_2' tables. A red box highlights the first four rows of the 'u_task_table' table, specifically the 'u_task_table.u_assigned_to', 'u_task_table.u_due_date', 'u_task_table.u_task_id', and 'u_task_table.u_task_name' fields. Another red box highlights the first row of the 'u_task_table_2' table, which is 'u_task_table_2.u_assigned_to'. The 'Active' column for all rows is set to 'true'. The 'Updated by' column shows 'admin' for most rows, except for the last two which show 'bob'. The 'Updated' column shows various dates from October 2024.

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

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 ServiceNow interface for creating a new record in the 'task table 2'. The page title is 'task table 2 - Create Created'. The form contains the following fields:

- task id
- task name
- status: dropdown menu showing '...None...
- assigned to
- comments
- due date

At the bottom left is a 'Submit' button. On the right side of the page, there is a watermark-like message: 'Activate Windows Go to Settings to activate Windows.'

Milestone 9

Create a Flow to Assign operations ticket to group

Open service now.

Click on All >> search for Flow Designer

Click on Flow Designer under Process Automation.

After opening Flow Designer Click on new and select Flow.

Under Flow properties Give Flow Name as “ task table”.

Application should be Global.

Click build flow.

Project on user X | ServiceNow Dev X | ServiceNow X | task table | Work X | Created 2024-10-22 2... X | ChatGPT X | New Tab X | +

servicenow All Favorites History : task table 2 - Created 2024-10-22 2... Search

flow

FAVORITES
No Results

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

assigned to bob
comments
due date

Activate Windows
Go to Settings to activate Windows.

[https://dev196626.service-now.com/\\$flow-designer.do?sysparm_nostack=true](https://dev196626.service-now.com/$flow-designer.do?sysparm_nostack=true)

This screenshot shows the ServiceNow task table interface. A search bar at the top left contains the text 'flow'. To the right of the search bar is a search results panel titled 'ALL RESULTS' under 'Process Automation'. The 'Flow Designer' option is selected. On the right side of the screen, there is a form with fields for 'assigned to' (set to 'bob'), 'comments', and 'due date'. At the bottom right, there is a message about activating Windows. The URL in the browser address bar is [https://dev196626.service-now.com/\\$flow-designer.do?sysparm_nostack=true](https://dev196626.service-now.com/$flow-designer.do?sysparm_nostack=true).

Project on user X | ServiceNow Dev X | ServiceNow X | Homepage - Flow X | Created 2024-10-22 2... X | ChatGPT X | New Tab X | +

Workflow Studio task table Flow

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 39 Last refreshed just now

| Name | Application | Status | Active | Update |
|---|------------------|-----------|--------|---------------------|
| Benchmark Recommendation Evaluator | Benchmarks Spoke | Published | true | 2024-09-22 10:45:00 |
| Business process approval flow | Global | Published | true | 2020-09-22 10:45:00 |
| 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 |

New ▾ Pick up where you left off

- Playbook
- Flow (selected)
- Subflow
- Action
- Decision table

task table Last updated: 14 min. ago by System Administrator

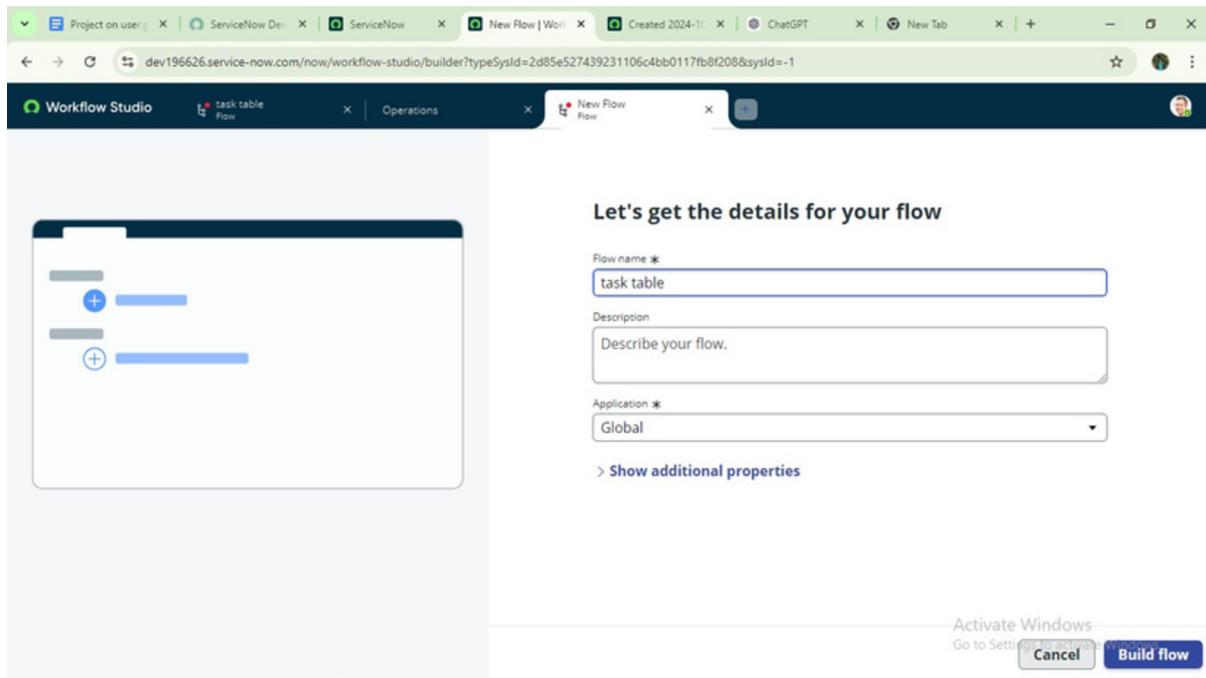
Create Flow Data Last updated: 5 months ago by System Administrator

Steps Last updated: 5 months ago by System Administrator

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

This screenshot shows the ServiceNow Workflow Studio Flows page. It displays a list of 39 flows, each with columns for Name, Application, Status, Active, and Update. A 'New' button with a dropdown menu is visible, showing options like Playbook, Flow (which is selected), Subflow, Action, and Decision table. To the right, there is a sidebar titled 'Pick up where you left off' showing recent items: 'task table' (last updated 14 min ago), 'Create Flow Data' (last updated 5 months ago), and 'Steps' (last updated 5 months ago). Below this, a section titled 'Latest updates' lists recent modifications made by 'System Administrator' to 'task table', 'Create Flow Data', and 'Steps'. The URL in the browser address bar is <https://dev196626.service-now.com/now/workflow-studio/home/flow>.



next step:

Click on Add a trigger

Select the trigger in that Search for “create record” and select that.

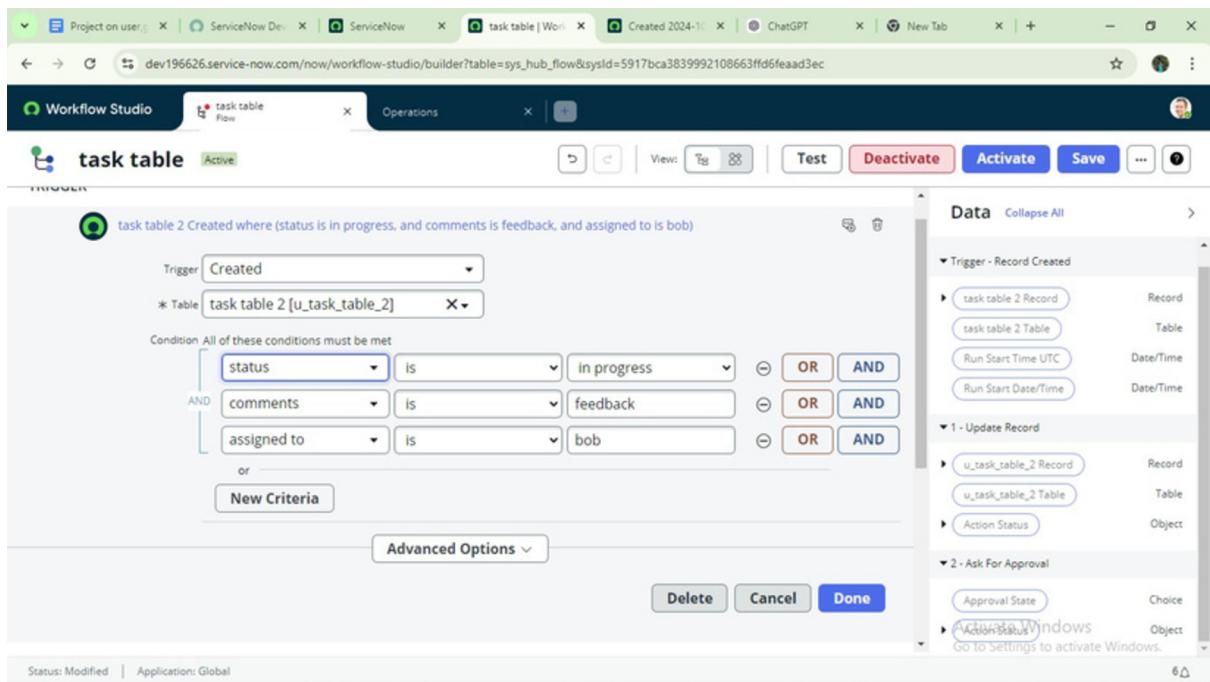
Give the table name as “ task table ”.

Give the Condition as Field : status Operator :is Value : in progress

Field : comments Operator :is Value : feedback

Field : assigned to Operator :is Value : bob

After that click on Done.



Next step:

Click on Add an action.

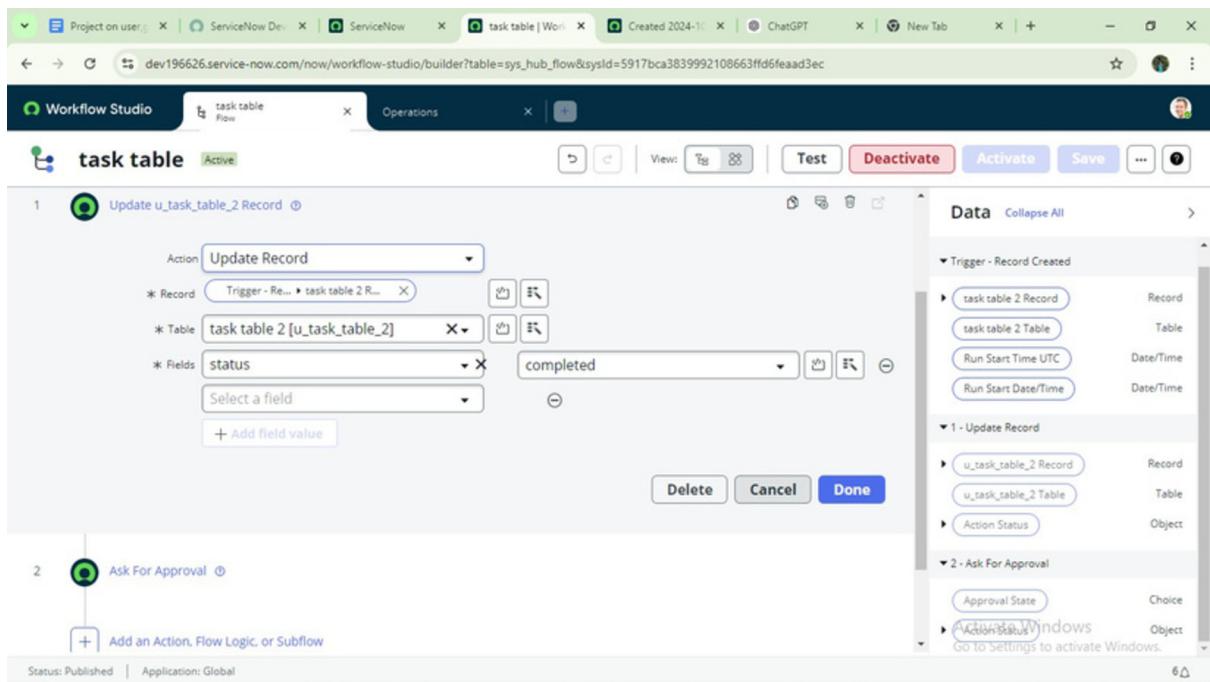
Select action in that ,search for “ update records”.

In Record field drag the fields from the data navigation from Right Side(Data pill)

Table will be auto assigned after that

Add fields as “status” and value as “completed”

Click on Done.



Next step:

Now under Actions.

Click on Add an action.

Select action in that ,search for “ ask for approval ”.

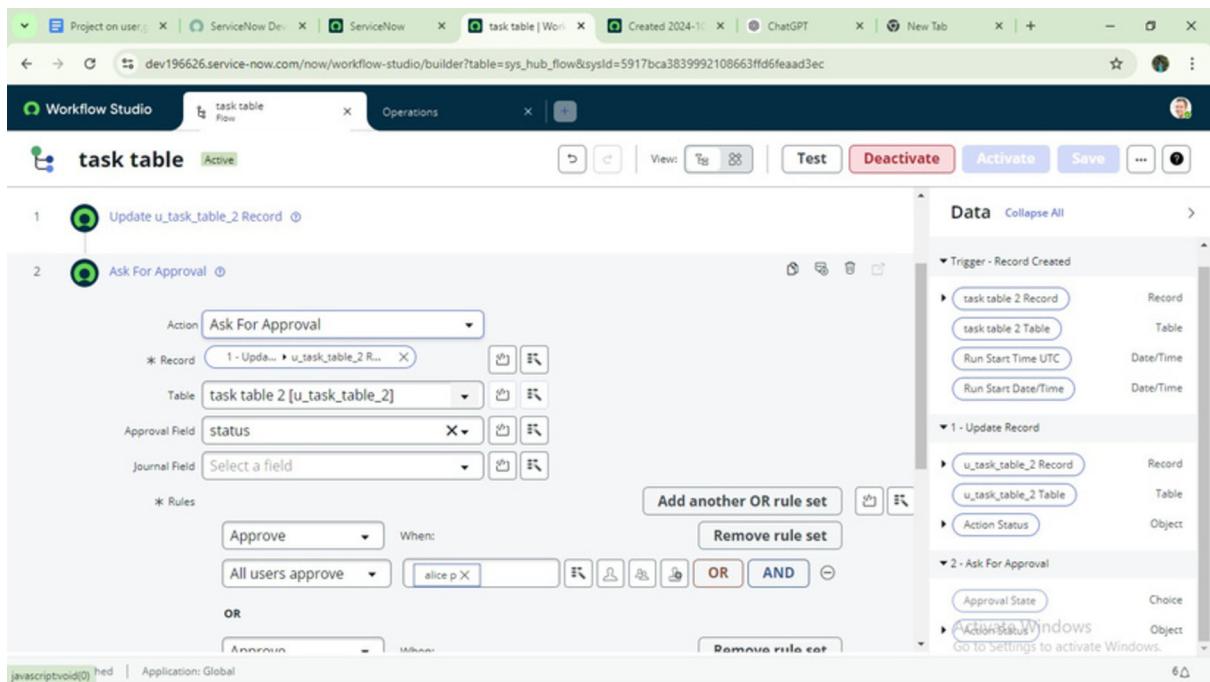
In Record field drag the fields from the data navigation from Right side

Table will be auto assigned after that

Give the approve field as “ status”

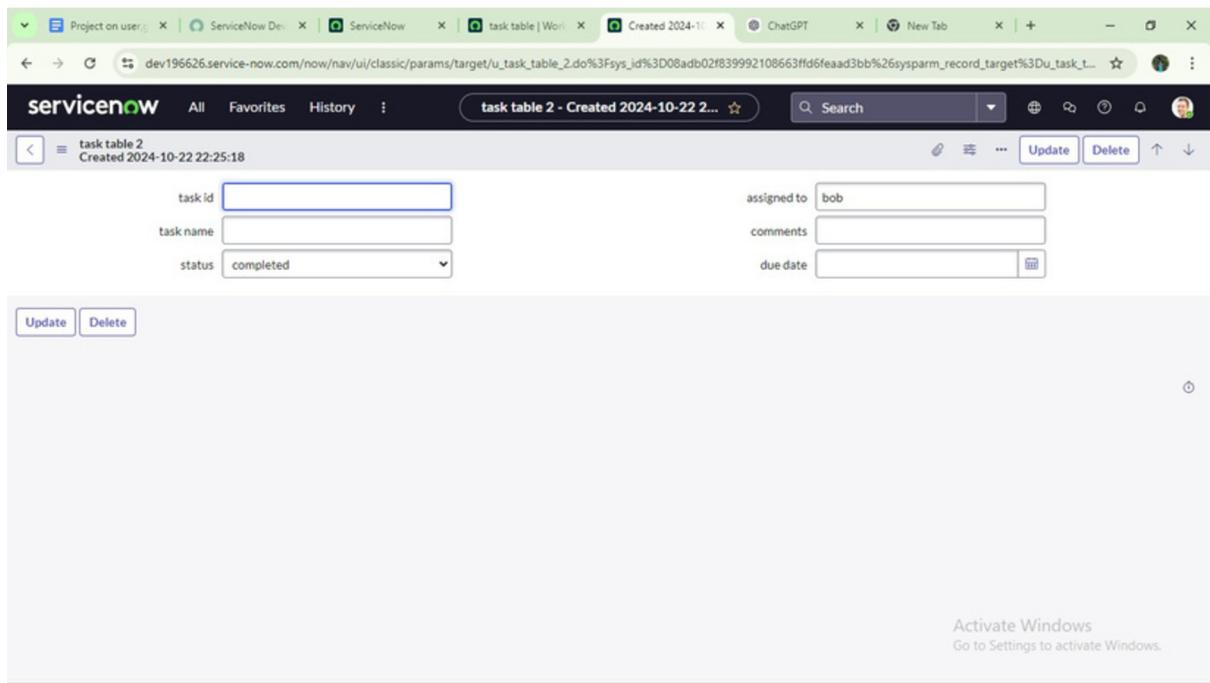
Give approver as alice p

Click on Done.



9.Go to application navigator search for task table.

10.It 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

The screenshot shows a ServiceNow interface titled "Approvals". The main area displays a list of approval records. The columns are labeled: State, Approver, Comments, Approval for, and Created. The "State" column uses color-coded icons: green for Approved, red for Rejected, and yellow for Requested. The "Approver" column lists names like Fred Luddy, Howard Johnson, Ron Kettering, Luke Wilson, Christen Mitchell, and Bernard Laboy. The "Comments" column contains mostly "(empty)" or specific approval codes like CHG0000096 or CHG0000095. The "Approval for" column shows various project identifiers. The "Created" column shows dates ranging from 2024-09-01 to 2024-10-22. A search bar at the top is set to "Created". A message at the bottom right says "Go to Settings to activate Windows".

| 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 | Act | 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.