

PROJECT DESIGN

Team Id	LTVIP2025TMID30968
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows

Proposed Solutions:

S.No	Parameter	Description
1	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.
2	Idea/Solution Description	project involves designing and implementing a streamlined system within ServiceNow that automates and optimizes the management of users, groups, and roles, while enforcing access control and triggering appropriate workflows.
3	Novelty/Uniqueness	Uniqueness points: 1.Access ControlVisualization Too 2.IRole Expiry & Review Workflows 3.Custom Role Hierarchies 4.Dynamic Role Assignment Automation
4	Social Impact/Customer Satisfaction	Enhances both security and satisfaction, benefiting internal users (employees) and external customers by making systems faster, safer, and smarter.
5	Business Model	It supports scalable role-based access for enterprise systems, reducing manual effort and improving compliance.
6	Scalability of the solution	It highly scalable due to ServiceNow's cloud-native, multi-instance architecture, allowing seamless handling of increasing users

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

MILESTONE-1: USERS

USERS:User represents an individual who has access to the platform.

PURPOSE:User purpose is defined by the roles assigned to a user, which determine what they can see and do within the platform.

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

servicenow All Favorites | **User - Bob p** ☆

< = User Bob p Update Set Password Delete

User ID: bob Email: bob@gmail.com

First name: Bob Language: -- None --

Last name: p Calendar integration: Outlook

Title: Department: Password needs reset: ☐

Locked out: ☐ Active: ☒

Web service access only: ☐ Internal Integration User: ☐

Time zone: System (America/Los_Angeles)

Date format: System (yyyy-MM-dd)

Business phone: Mobile phone: Photo: Click to add

Update Set Password Delete

Related Links

[View linked accounts](#)


[View Subscriptions](#)

[Reset a password](#)

Entitled Custom Tables Roles Groups Delegates Subscriptions User Client Certificates

Table Search

User = Bob p

Table	Application	Role
 No records to display		

MILESTONE-2:GROUPS

GROUPS: Group is a set of users who share a common purpose. Groups may perform tasks such as approving change requests, resolving incidents, receiving email notifications, or performing work order tasks.

PURPOSE: Groups are designed to organize users based on their roles, responsibilities, or functions within an organization.

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 interface for creating a new group. The top navigation bar includes the ServiceNow logo, 'All', 'Favorites', and a search bar. The main header indicates the current page is 'Group - Project team'. The form fields are as follows:

- Name: Project team
- Group email: [Empty field]
- Manager: [Empty field]
- Parent: [Empty field]
- Description: [Empty text area]

Below the form are 'Update' and 'Delete' buttons. The 'Roles' tab is selected, showing a table with the following columns: Created, Role, Granted by, and Inherits. The table is currently empty, with a message 'No records to display' at the bottom.

MILESTONE-3:ROLES

ROLES: Roles define the access and permissions users have within the platform.

PURPOSE: Roles are used to grant users specific permissions and access to different features and functionalities within the platform

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

The screenshot shows the ServiceNow interface for creating a new role. The top navigation bar includes the ServiceNow logo, 'All', 'Favorites', and a breadcrumb 'Group - Project team'. Below this, the form for 'Group - Project team' is visible, with fields for Name (filled with 'Project team'), Group email, Manager, Parent, and Description. The 'Roles' tab is selected, showing a table with columns: Created, Role, Granted by, and Inherits. The table is empty, displaying 'No records to display'.

Created	Role	Granted by	Inherits
No records to display			

Create one more role:

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

The screenshot shows the ServiceNow interface for configuring a role named 'project member 2'. The top navigation bar includes the ServiceNow logo, 'All', 'Favorites', and a search bar. The role configuration form includes fields for 'Name' (project member 2), 'Application' (Global), and 'Elevated privilege' (unchecked). Below the form are 'Update' and 'Delete' buttons. A tabbed interface shows 'Contains Roles' as the active tab, with other tabs for 'Applications with Role', 'Modules with Role', and 'Custom Tables'. A search bar with the text 'for text' and a 'Search' button is present. Below the search bar, a table header shows 'Role = project member 2' and a 'Contains' column. The table body is empty, displaying a 'No records to display' message with a table icon.

MILESTONE-4: TABLE

TABLE: Tables are the fundamental structures for storing and organizing data

PURPOSE: Tables serve as the fundamental building blocks for organizing and managing data

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

servicenow All Favorites History Workspaces Admin Table - New Record

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label project table

* Name u_project_table

Extends table

Application Global

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name project table

Remote Table ☐

Columns Controls Application Access

Table Columns Type Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
project id	Integer				false

Create one more table:

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

10. Click on submit

Columns

Controls

Application Access

≡

⌵

💬

Table Columns

for text

Search

⚙️

—

Dictionary Entries

	🔍	Column label	Type	Reference	Max length	Default value	Display
		task id	integer	Search	Search	Search	Search
+	Insert a new row...						

Submit

Cancel

Related Links

[Track in Update Sets](#)

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

The screenshot shows the ServiceNow interface for a group named "project team". The top navigation bar includes "servicenow", "All", "Favorites", "History", "Workspaces", and "Admin". The breadcrumb trail is "Group - project team". A search bar is visible on the right. Below the navigation, there's a message bar stating "Job to add or remove role(s) from user(s) of group has been queued". The main form has fields for "Name" (project team), "Group email" (abc@gmail.com), "Manager", "Parent", and "Description". Below the form are "Update" and "Delete" buttons. The "Group Members (2)" tab is active, showing a table with two users: "alice p" and "bob p". The table has a search bar and a "User" dropdown. The bottom of the page shows a pagination bar indicating "1 to 2 of 2".

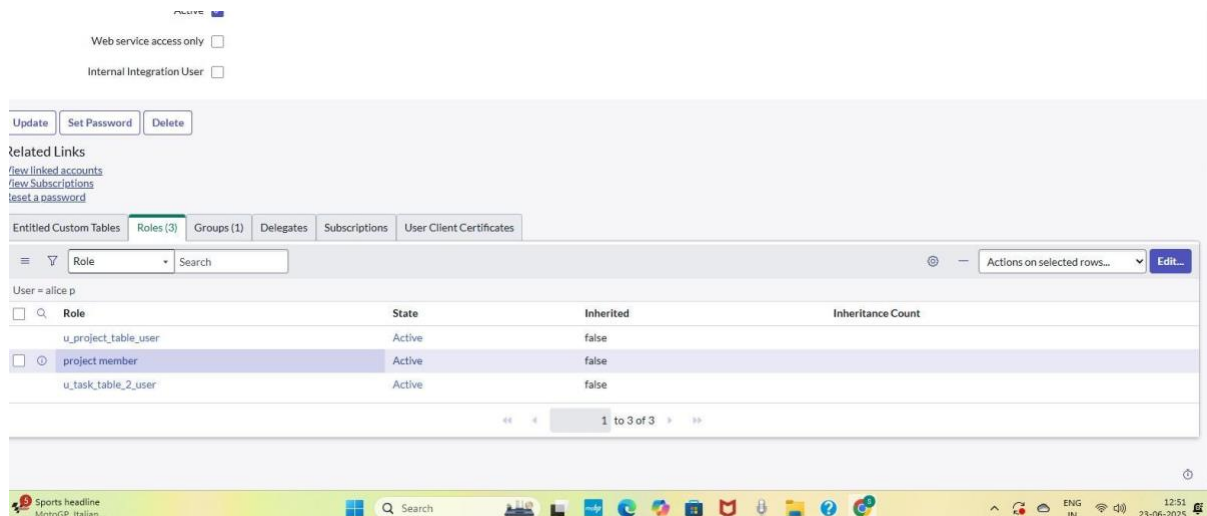
MILESTONE-6: ASSIGN ROLES TO USERS

PURPOSE: Assigning roles to users determines their access permissions and what they can do within the platform

Activity-1: Assign Roles to Alice User

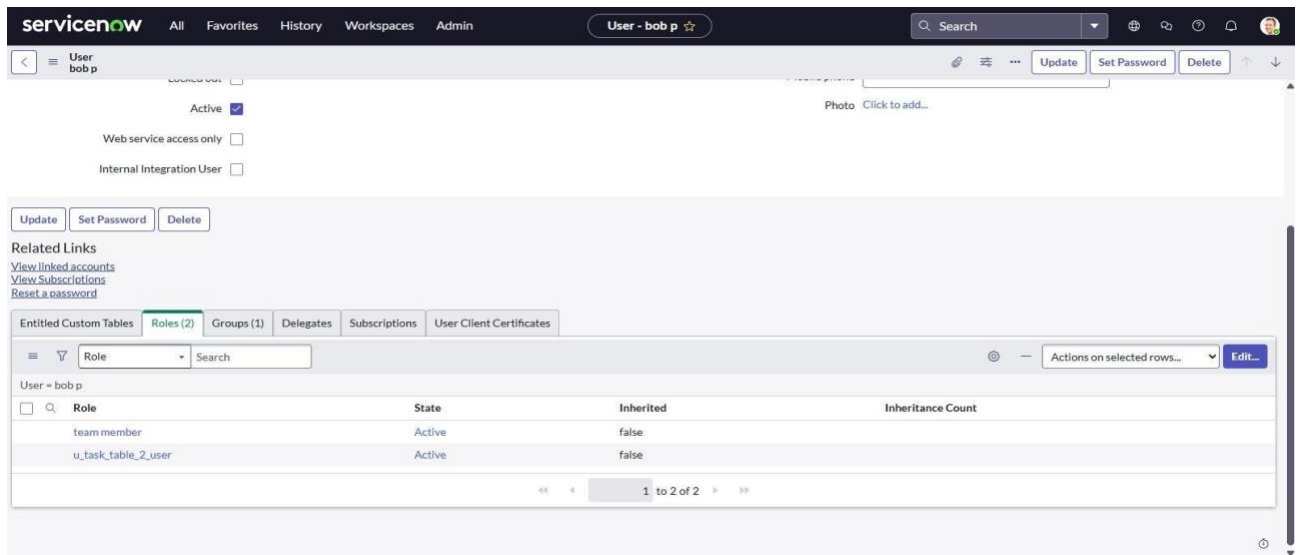
1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user

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.



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.



MILESTONE-7:APPLICATION ACCESS

APPLICATION ACCESS:The mechanism that controls which applications and users can access specific tables and their data

PURPOSE:Application access settings control which applications and users can interact with the data and functionality of a specific application.

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

servicenow All Favorites History Workspaces Admin Application Menu - project table

Application Menu project table

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 Global Active ☒

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

Roles project member

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

Category

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

Hint

Description

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

Application Menu task table 2

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 Global 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

MILESTONE-8:ACCESS CONTROL LIST

ACL:It is a security rule that controls user access to platform resources, such as tables, fields, and even scripts

PURPOSE:Access Control Lists (ACLs) are used to manage and restrict user access to data within the platform.

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
6. Fill the following details to create a new ACL

Access Control
New record

Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL.

* Type: record
* Operation: create
Decision Type: Allow If
Admin overrides: ☒
Protection policy: -- None --
* Name: task table 2 [u_task_table_2]
status
Description:
Applies To: No. of records matching the condition: 0
Add Filter Condition Add OR Clause
-- choose field -- -- oper -- -- value --

Conditions

7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_security_acl_list.do%3Fsysparm_query%3Dsys_created_onONToday%40javascript%3Ags.beginningOfToday..

servicenow | All | Favorites | History | Workspaces | Access Controls | Search | Actions on selected rows... | New

Access Controls | Name | Search

All > Created on Today

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

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 the ServiceNow interface for creating a new record in 'task table 2'. The top navigation bar includes the ServiceNow logo, 'All', 'Favorites', and 'History' tabs. A breadcrumb trail shows 'task table 2' and 'New record'. The form contains several input fields: 'assigned to' (a user selection dropdown), 'task name' (a text field), 'task id' (a text field), 'due date' (a date picker), 'status' (a dropdown menu currently showing '-- None --'), and 'comments' (a text area). A 'Submit' button is located at the bottom left of the form.

MILESTONE-9:FLOW

FLOW:Flow is a visual representation of an automated process.

PURPOSE:The purpose of a flow is to automate business processes by orchestrating a series of actions and logic.

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

1.Open service now.

2.Click on All >> search for Flow Designer

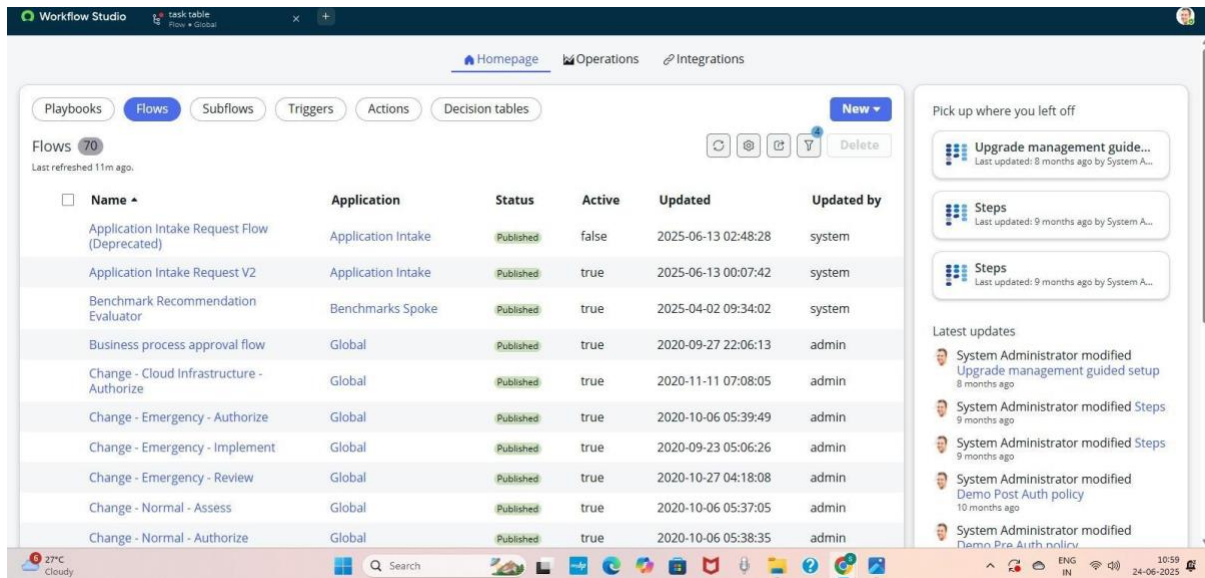
3.Click on Flow Designer under Process Automation.

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.



next step:

1.Click on Add a trigger

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

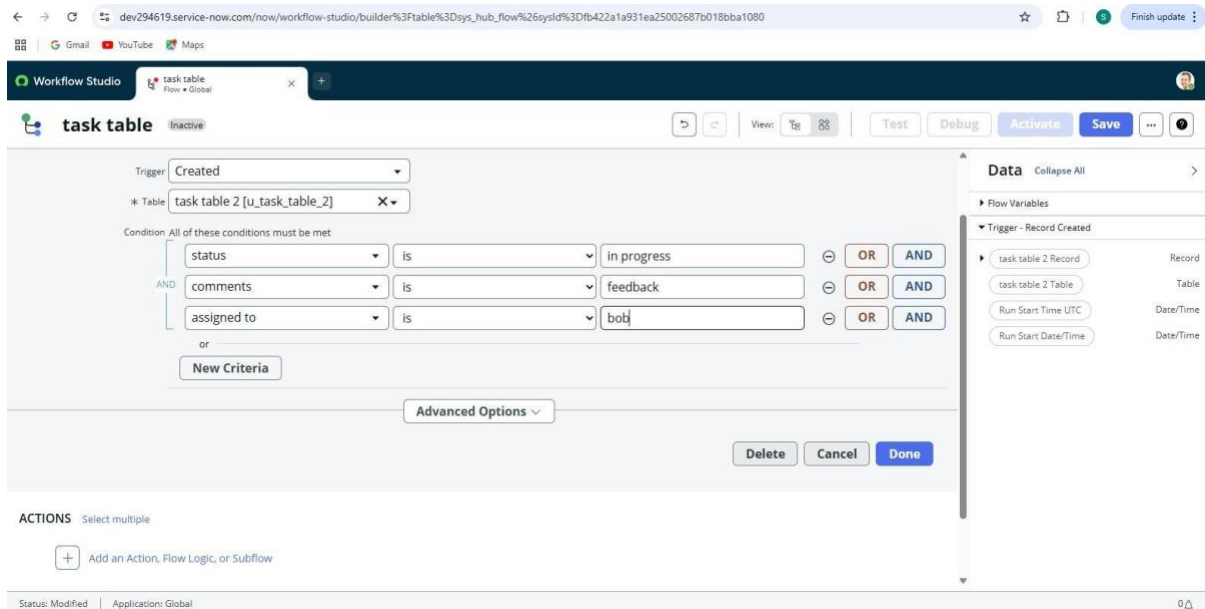
3.Give the table name as “ task table ”.

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

Field : comments Operator :is Value : feedback

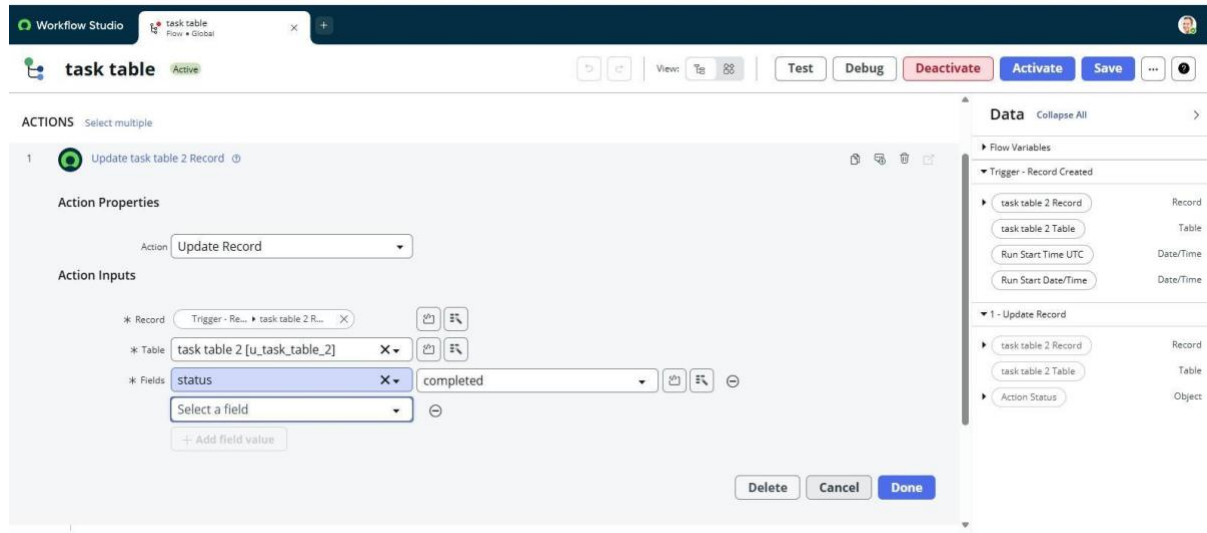
Field : assigned to Operator :is Value : bob

5. After that click on Done



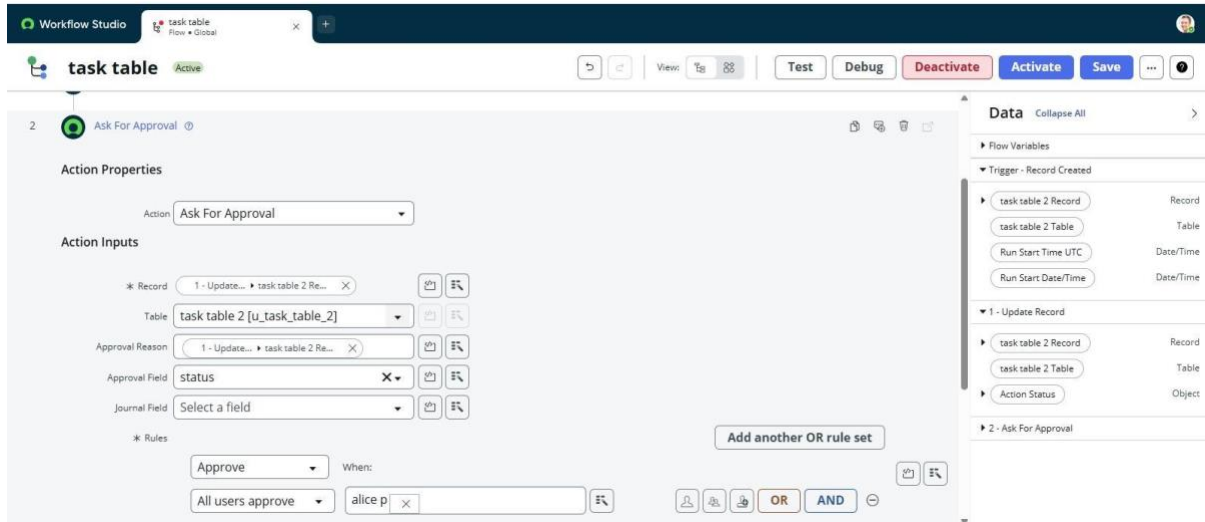
Next step:

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



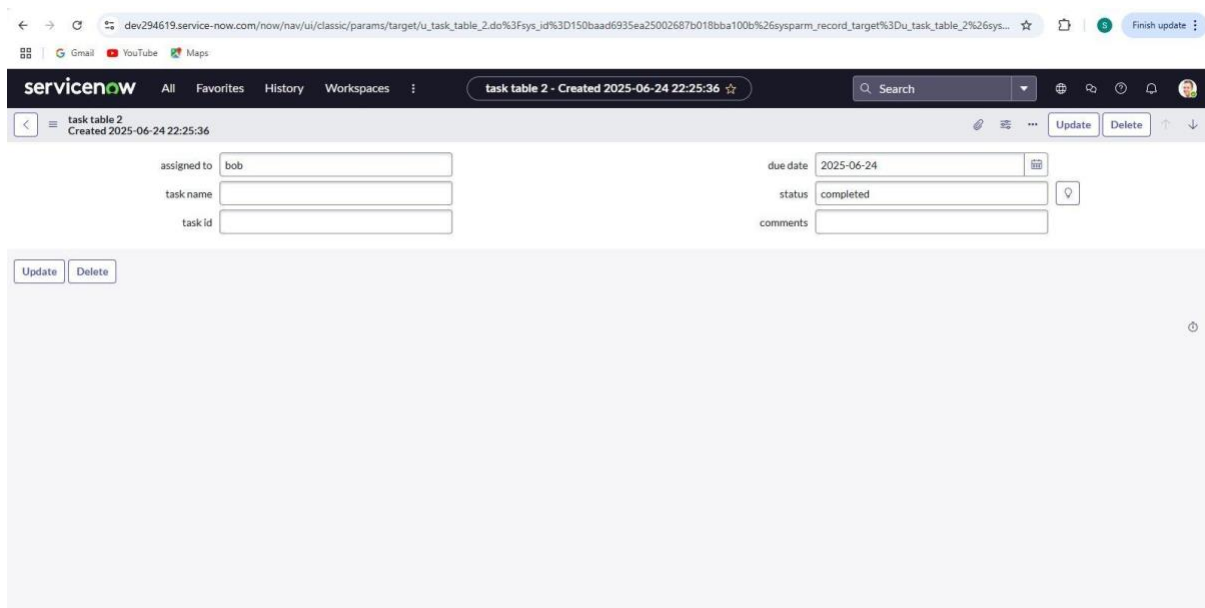
Next step:

- 1.Now under Actions.
- 2.Click on Add an action.
- 3.Select action in that ,search for “ ask for approval ”.
- 4.In Record field drag the fields from the data navigation from Right side
- 5.Table will be auto assigned after that
- 6.Give the approve field as “ status”
- 7.Give approver as alice p
- 8.Click on Done.



1.Go to application navigator search for task table.

2.It status field is updated to completed



1.Go to application navigator and search for my approval

2.Click on my approval under the service desk.

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

servicenow

All

Favorites

History

Workspaces

Approvals

Search

Approvals

Created

Search

State

Approver

Comments

Approval for

Search

Search

Search

Search

Approved

alice p

(empty)

Rejected

Fred Luddy

(empty)

Requested

Fred Luddy

(empty)

Requested

Fred Luddy

(empty)

Requested

Howard Johnson

CHG0000096

Requested

Ron Kettering

CHG0000096

Requested

Luke Wilson

CHG0000096

Requested

Christen Mitchell

CHG0000096

Requested

Bernard Laboy

CHG0000096

Requested

Howard Johnson

CHG0000095

Requested

Ron Kettering

CHG0000095

Requested

Luke Wilson

CHG0000095

Requested

Christen Mitchell

CHG0000095

Requested

Bernard Laboy

CHG0000095

1 to 20 of 664

1 to 20 of 664

dev294619.service-now.com/now/nav/ui/classic/params/target/sysapproval_approver_list.do%3Fsysparm_query=approval_first_row%3D1%26sysparm_view%3D

☆ | 📄 | 🔄 | 🕒 | 📢 | 🧑

Finish update |

🏠 | 📧 | 📺 | 🗺️

servicenow | All | Favorites | History | Workspaces | Admin | Approvals ⌵

🔍 Search | 🌐 | 🔄 | 🕒 | 📢 | 🧑

ServiceNow | Service Management | All | Created | 🔍 Search | ⌵ | 🌐 | 🔄 | 🕒 | 📢 | 🧑 | Actions on selected rows... ⌵

All

🔍

State ⌵

🟢 Approved

Don Goodliffe

CHG0000046

2024-08-29 07:52:40

🟢 Approved

Bow Ruggeri

CHG0000083

2024-08-29 07:52:45

🟢 Approved

Beth Anglin

CHG0000055

2024-08-29 07:52:33

🟢 Approved

Fred Luddy

CHG0000061

2024-08-29 07:52:50

🟢 Approved

ITIL User

CHG0000082

2024-08-29 07:52:47

🟢 Approved

Change Manager

STDCHG0000004

2015-07-01 08:59:06

🟢 Approved

David Loo

CHG0000042

2024-08-29 07:52:43

🟢 Approved

Don Goodliffe

CHG0000075

2024-08-29 07:52:51

🟢 Approved

Bow Ruggeri

CHG0000059

2024-08-30 06:27:41

🟢 Approved

Don Goodliffe

CHG0000056

2024-08-29 07:52:35

🟢 Approved

Fred Luddy

CHG0000040

2024-08-29 07:52:44

🟢 Approved

Fred Luddy

CHG0000063

2024-08-29 07:52:56

🟢 Approved

David Loo

CHG0000049

2024-08-30 06:27:41

🟢 Approved

ITIL User

CHG0000058

2024-08-30 06:27:41

🟢 Approved

Beth Anglin

CHG0000067

2024-08-29 07:52:36

🟢 Approved

ITIL User

CHG0000038

2024-08-29 07:52:40

🟢 Approved

Change Manager

STDCHG0000001

2015-06-29 03:52:34