

PROJECT TITLE

**OPTIMIZING USER, GROUP, AND ROLE MANAGEMENT
WITH ACCESS CONTROL AND WORKFLOWS**

Team Id	NM2025TMID04622
Team size	4
Team Leader	M MANISH NEBIN
Team Member	AUSTIN SILVER STAR A
Team Member	ABIS ROY X
Team Member	R AJAY

Problem Context:

In a small project environment, a Project Manager (Alice) and a Team Member (Bob) are responsible for delivering tasks. However, the absence of well-defined roles, access restrictions, and structured workflows often creates confusion in responsibilities, accountability, and progress monitoring.

Objectives:

1. **Role Definition:** Clearly outline the duties of Alice as Project Manager and Bob as Team Member, ensuring both responsibility and access boundaries are transparent.
2. **Access Control:** Introduce mechanisms that limit Bob's ability to create or edit projects beyond his assigned tasks, while still allowing him to view and update his responsibilities.
3. **Workflow Organization:** Establish a structured process that enables Alice to assign work, track task progress, and oversee completion in a timely and efficient manner.

Key Skills/Tools:

Users, Groups, Roles, Tables, Access Control Lists (ACL), Workflow/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. The browser tabs include 'servicenow login', 'Student', 'Developer servicenow.com', 'ServiceNow Developer', and 'Alice p | User | ServiceNow'. The URL is a long alphanumeric string. The page header shows 'servicenow' and navigation links: 'All', 'Favorites', 'History', 'Workspaces', 'Admin'. The user profile is for 'User - Alice p'. The form contains the following fields and options:

- User ID:
- First name:
- Last name:
- Title:
- Department:
- Email:
- Language:
- Calendar integration:
- Time zone:
- Date format:
- Business phone:
- Mobile phone:
- Photo: [Click to add...](#)
- Password needs reset: ☐
- Locked out: ☐
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

At the bottom of the form are buttons: 'Update', 'Set Password', and 'Delete'. Below the form is a 'Related Links' section with links: 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the very bottom is a tabbed interface with 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles' tab is currently selected, showing a table with a search bar.

Create one more user:

7. Create another user with the following details

8. Click on submit

The screenshot shows the ServiceNow user profile interface for a user named 'Bob p'. The form includes the following fields and options:

- User ID:** bob
- First name:** Bob
- Last name:** p
- Title:** (empty)
- Department:** (empty)
- Email:** bob@gmail.com
- Language:** - None -
- Calendar integration:** Outlook
- Time zone:** System (America/Los Angeles)
- Date format:** System (yyyy-MM-dd)
- Business phone:** (empty)
- Mobile phone:** (empty)
- Photo:** Click to add...
- Active:** ☒
- Web service access only:** ☐
- Internal Integration User:** ☐
- Buttons:** Update, Set Password, Delete
- Related Links:**
 - [New linked accounts](#)
 - [New Subscriptions](#)
 - [Reset a password](#)
- Tabs:** Custom Tools, Roles, Groups, Delegates, Subscriptions, User Client Certificates

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.

ServiceNow Group - New Record

Name:

Group email:

Manager:

Parent:

Description:

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.

ServiceNow Role - project member

Name:

Application:

Enacted privilege: ☐

Description:

Contains Items | Applications with Role | Modules with Role | Custom Tables

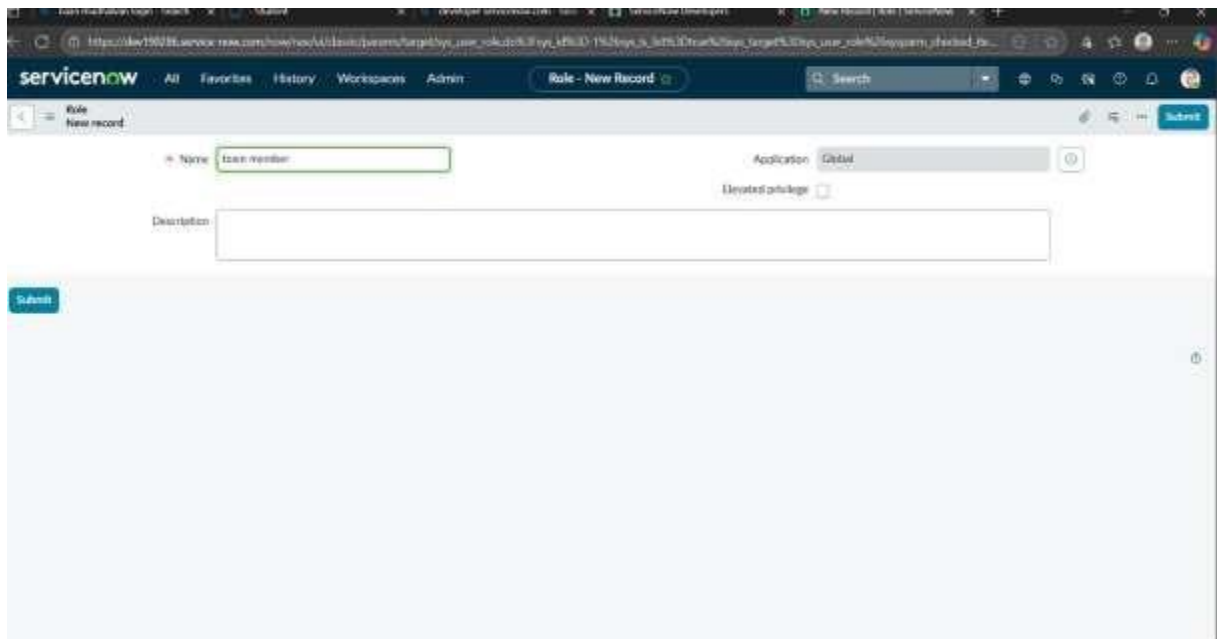
Role - project member

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 'Role - New Record' form. The form is displayed in a web browser window. The header bar includes the ServiceNow logo and navigation tabs: 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The main form area contains the following fields:

- Name:** A text input field containing the value 'team member'.
- Application:** A dropdown menu set to 'Global'.
- Description:** A large text area for entering a description.

A 'Submit' button is located at the bottom left of the form area.

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

https://dev194007.service-now.com/now/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D%7b26sys_id%7b%3Dtrue%26sys_target%3Dsys_db_object%26sysparm_checked_items%3...

servicenow All Favorites History Workspaces Admin Table - New Record Search Submit Cancel

Table New record

* Name: u_project_table

Extends table:

Create module ☒

Create mobile module ☒

Add module to menu: -- Create new --

New menu name: project table

Remote Table ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
X	project id					false
X	project name					false
X	project manager					false
	st					

8. Click on submit

ServiceNow Developer New Record Table | ServiceNow

https://dev194007.service-now.com/now/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D%7b26sys_id%7b%3Dtrue%26sys_target%3Dsys_db_object%26sysparm_checked_items%3...

servicenow All Favorites History Workspaces Admin Table - New Record Search Submit Cancel

Table New record

* Name: u_task_table_2

Extends table:

Create module ☒

Create mobile module ☒

Add module to menu: -- Create new --

New menu name: task table 2

Remote Table ☐

Columns Controls Application Access

Table Columns Column label Search

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
X	Updated by	String	(empty)	40		false
X	Updates	Integer	(empty)	40		false
X	Updated	Date/Time	(empty)	40		false
X	Sys ID		(empty)	32		false
X			(empty)	40		false
X			(empty)	40		false

Insert a new row...

Create one more table:

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

10. Click on submit.

Table - New Record

Table Columns: Column label + Search

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	Integer	(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...

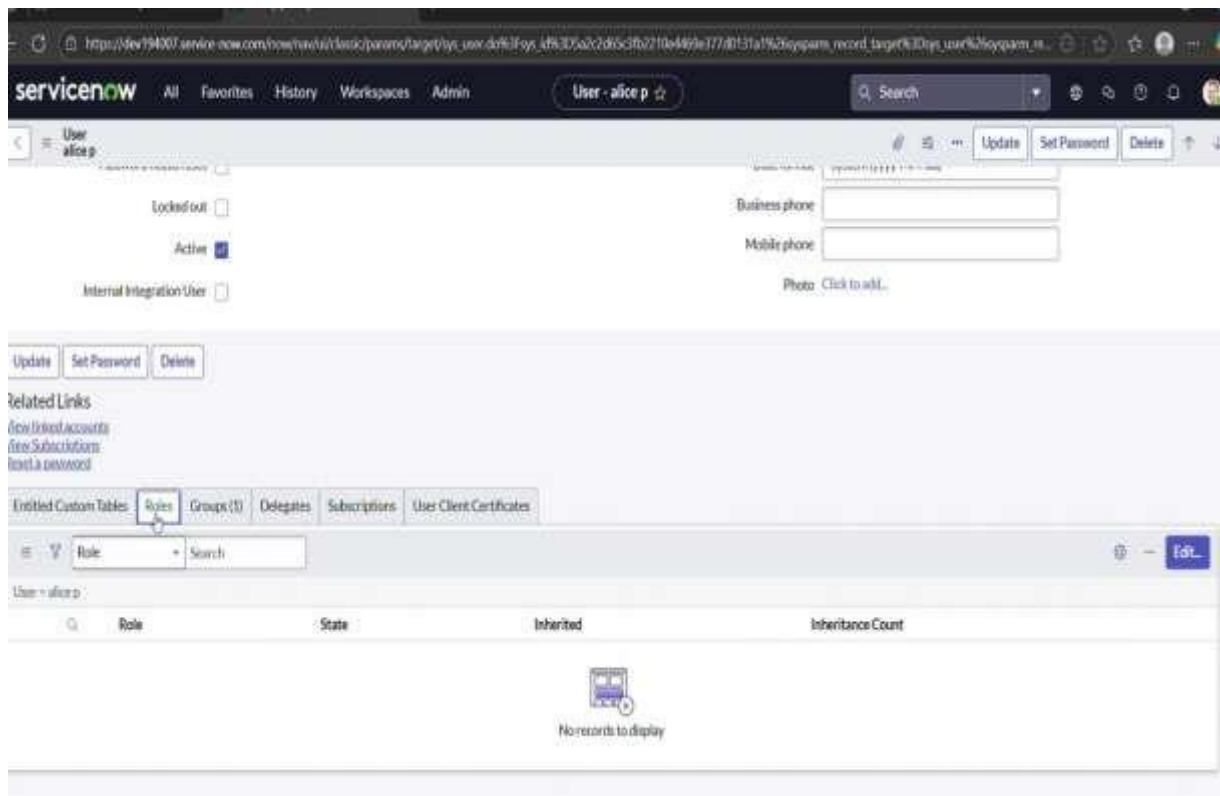
Submit Cancel

Related Links

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.

servicenow All Favorites History Workspaces Admin User - alice p Search

User: alice p

Update Set Password Delete

☐ Password needs reset
☐ Locked out
☒ Active
☐ Internal Integration User

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 (2) Groups (1) Delegates Subscriptions User Client Certificates

Role Search Actions on selected rows... Edit

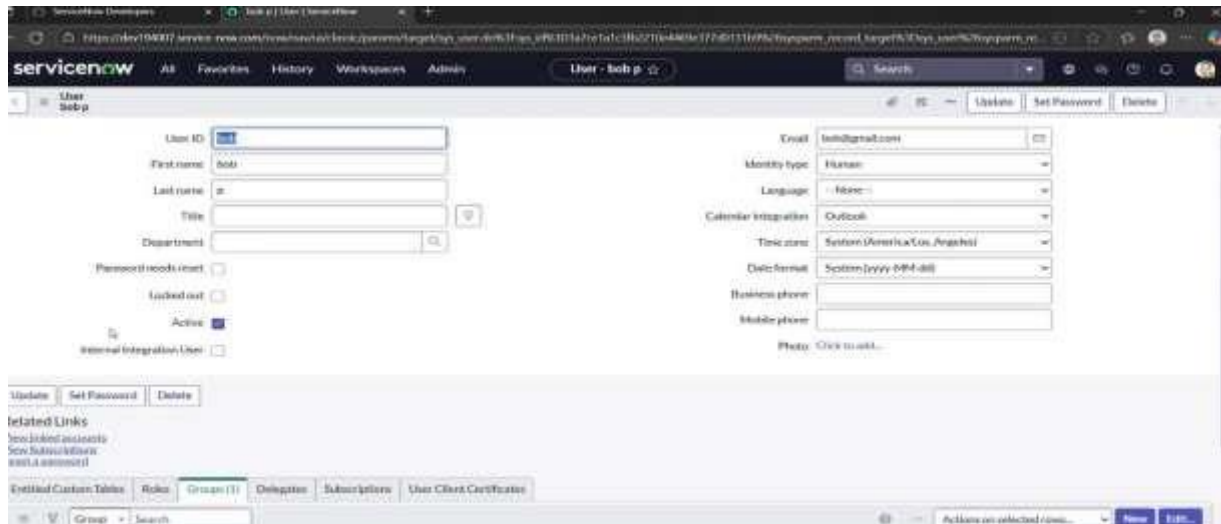
User = alice p

Role	State	Inherited	Inheritance Count
u_project_table_user	Active	false	
u_task_table_2_user	Active	false	

1 to 2 of 2

Activity 2: Assign roles to bob user

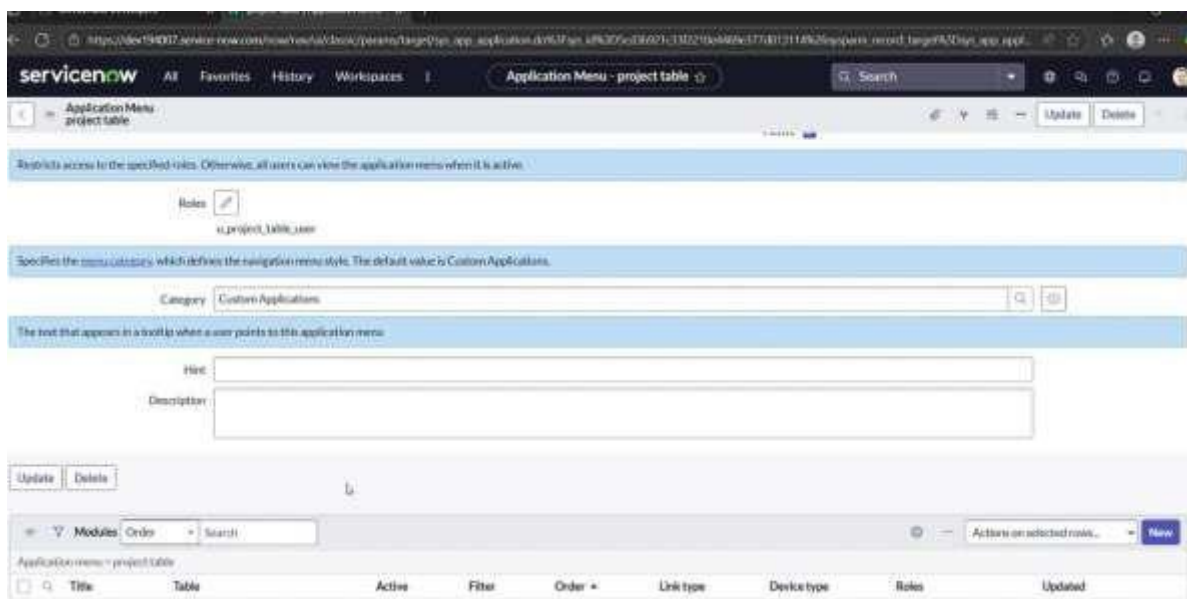
1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the bob p user
4. Under team member
5. Click on edit
6. Select team member and give table role and save
7. Click on profile icon Impersonate user to bob
8. We can see the task table2.



Milestone 7: Application access

Activity 1: Assign table access to application

1. while creating a table it automatically create 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



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

* Type: record

Operation: write

Decision Type: Allow If

Admin overrides: ☒

Protection policy: None

* Name:

Description:

Applies To:

Application: Global

Active: ☒

Advanced: ☐

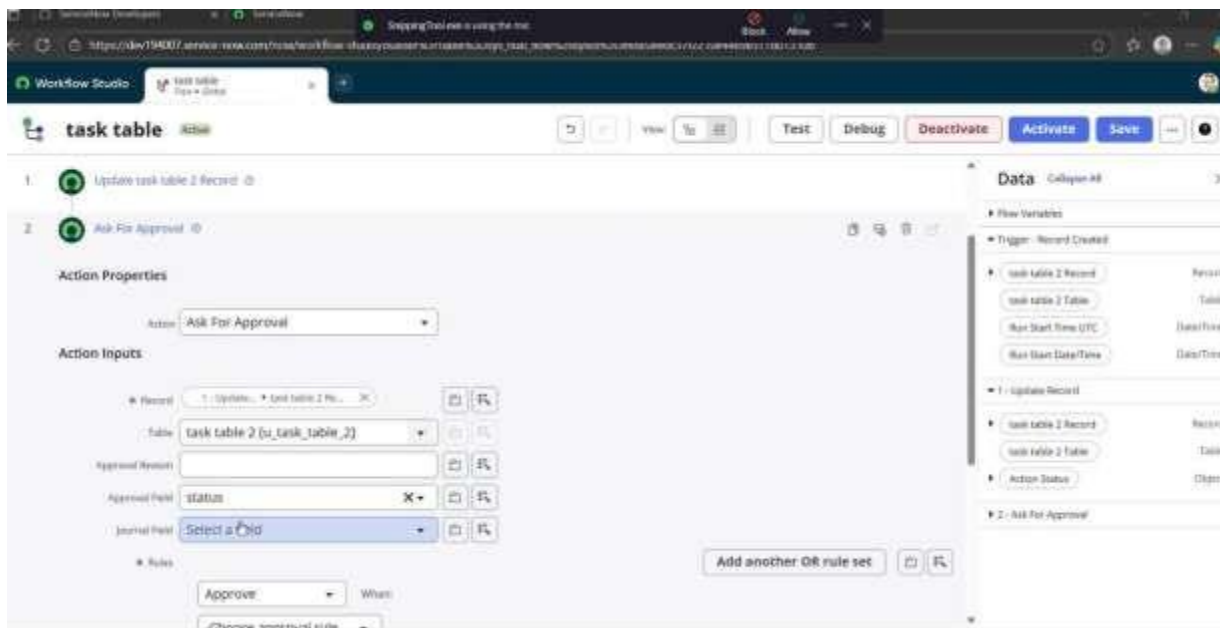
Conditions

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
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.



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

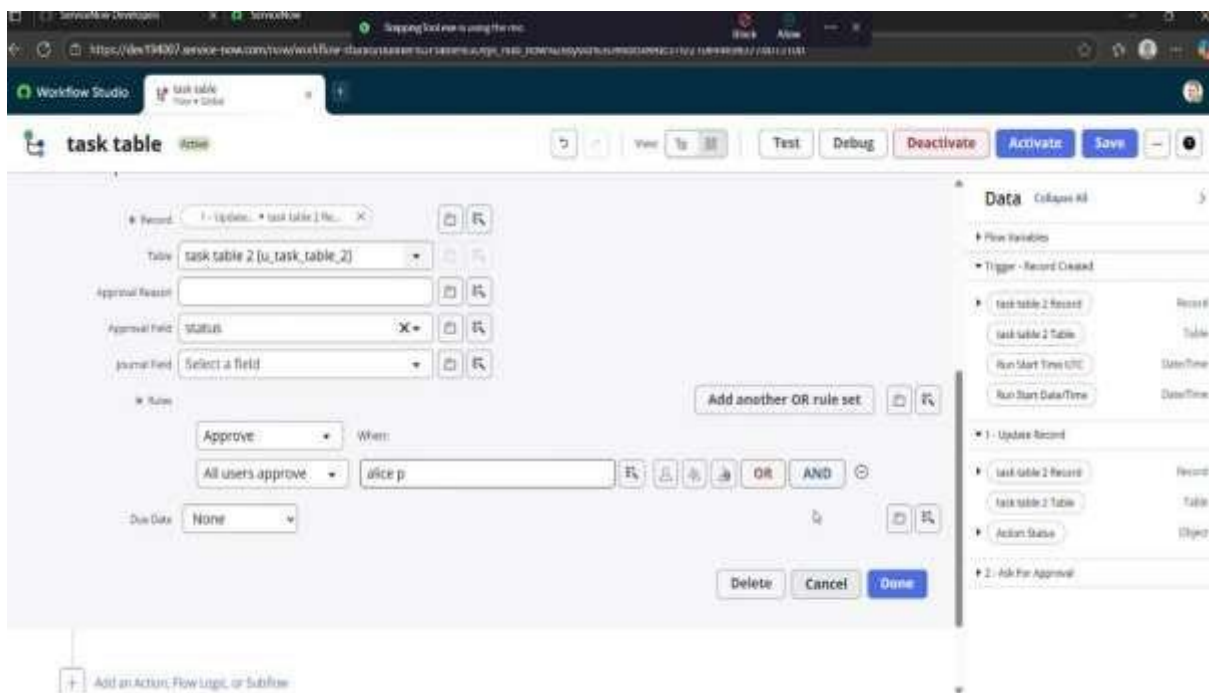
Field: comments Operator: is Value: feedback

Field: assigned to Operator: is Value: bob

5. After that click on Done.

Next step:

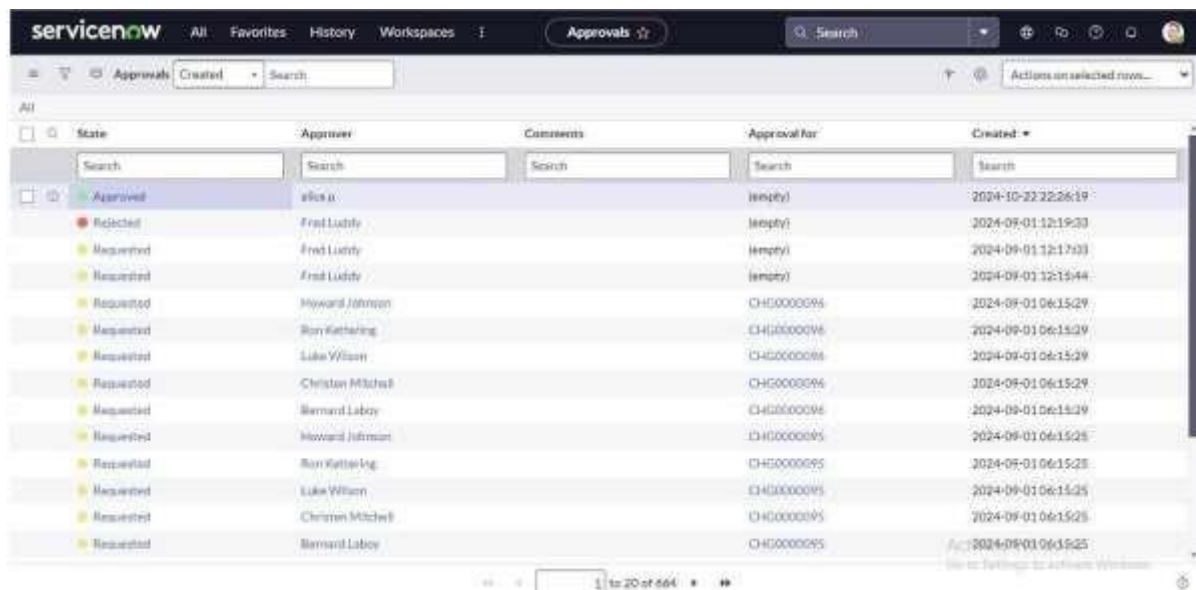
1. Click on Add an action.
2. Select action in that, search for “update records”.
3. In Record field drag the fields from the data navigation from Right Side (Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.



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.
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 the ServiceNow 'Approvals' page. The interface includes a top navigation bar with 'Approvals' selected, a search bar, and a filter dropdown set to 'Created'. Below the navigation bar, there are search filters for 'State', 'Approver', 'Comments', 'Approval For', and 'Created'. The main table displays a list of approval requests with columns for State, Approver, Comments, Approval For, and Created. The first row is highlighted in blue and shows a 'Requested' state for 'Fred Luddy' with an 'Approval For' value of '(empty)'. The table also includes a 'Created' column with timestamps. At the bottom, there is a pagination bar showing '1 to 20 of 664' items.

State	Approver	Comments	Approval For	Created
Requested	Fred Luddy		(empty)	2024-09-01 12:19:33
Requested	Fred Luddy		(empty)	2024-09-01 12:17:33
Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
Requested	Howard Johnson		CH00000006	2024-09-01 06:15:29
Requested	Ron Kathering		CH00000006	2024-09-01 06:15:29
Requested	Luke Wilson		CH00000006	2024-09-01 06:15:29
Requested	Christian Mitchell		CH00000006	2024-09-01 06:15:29
Requested	Bernard Laboy		CH00000006	2024-09-01 06:15:29
Requested	Howard Johnson		CH00000005	2024-09-01 06:15:25
Requested	Ron Kathering		CH00000005	2024-09-01 06:15:25
Requested	Luke Wilson		CH00000005	2024-09-01 06:15:25
Requested	Christian Mitchell		CH00000005	2024-09-01 06:15:25
Requested	Bernard Laboy		CH00000005	2024-09-01 06:15:25

Conclusion:

This approach provides a streamlined system for managing projects by defining roles, applying access restrictions, and organizing workflows. It helps the team collaborate effectively, improves accountability, simplifies task tracking, and ensures successful project delivery.