

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

Team Id: NM2025TMID08799

Team Members: 4

Team Leader: VINOTHA V

Team Member 1: VIYASHINI J

Team Member 2: YUVARAJ M

Team Member 3: AKASH J

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.

KeySkills/Tools:Users,Groups,Roles,Tables,AccessControlLists(ACL),
Workflow/Flow Designer.

TASKINITIATION

Milestone1:Users

Activity1:CreateUsers

1. Openservicenow
2. ClickonAll>>search for users
3. SelectUsersunder systemsecurity
4. Click onnew
5. Fillthefollowingdetailsto createanewuser
6. Click onsubmit

The screenshot shows the ServiceNow user management interface for a user named 'Alice p'. The form is divided into two main sections: personal information and system settings. The personal information section includes fields for User ID (alice), First name (Alice), Last name (p), Title, and Department. The system settings section includes fields for Email (alice@gmail.com), Language (None), Calendar integration (Outlook), Time zone (System (America/Los_Angeles)), Date format (System (yyyy-MM-dd)), Business phone, and Mobile phone. 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'. Below the form, there are 'Related Links' for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the very bottom, there is a tabbed interface with 'Entitled Custom Tables' selected, and a search bar.

servicenow All Favorites History Workspaces Admin User - Alice p Search

User Alice p Update Set Password Delete

User ID

First name

Last name

Title

Department

Password needs reset ☐

Locked out ☐

Active ☒

Web service access only ☐

Internal Integration User ☐

Email

Language

Calendar integration

Time zone

Date format

Business phone

Mobile phone

Photo

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

Create another user:

7. Create another user with the following details

8. Click on submit

The screenshot shows the ServiceNow user management interface for a user named 'Bob p'. The form is divided into two main sections. The left section contains fields for 'User ID' (filled with 'bob'), 'First name' (filled with 'Bob'), 'Last name' (filled with 'p'), 'Title' (empty), and 'Department' (empty). Below these are checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), 'Web service access only', and 'Internal Integration User'. The right section contains fields for 'Email' (filled with 'bob@gmail.com'), 'Language' (set to '-- None --'), 'Calendar integration' (set to 'Outlook'), 'Time zone' (set to 'System (America/Los Angeles)'), 'Date format' (set to 'System (yyyy-MM-dd)'), 'Business phone', and 'Mobile phone'. There is also a 'Photo' field with a 'Click to add...' link. At the top right, there are buttons for 'Update', 'Set Password', and 'Delete'. Below the form, there are 'Update', 'Set Password', and 'Delete' buttons again. Underneath these are 'Related Links' for 'view linked accounts', 'view Subscriptions', and 'reset a password'. At the bottom, there is a tabbed interface with 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Groups' tab is currently selected.

Milestone 2: Groups

Activity 1: Create Groups

1. Open servicenow.

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 - New Record' form. The 'Name' field is filled with 'project team'. There are empty fields for 'Group email', 'Manager', 'Parent', and 'Description'. A 'Submit' button is located at the bottom left of the form area.

Milestone 3: Roles

Activity 1: Create roles

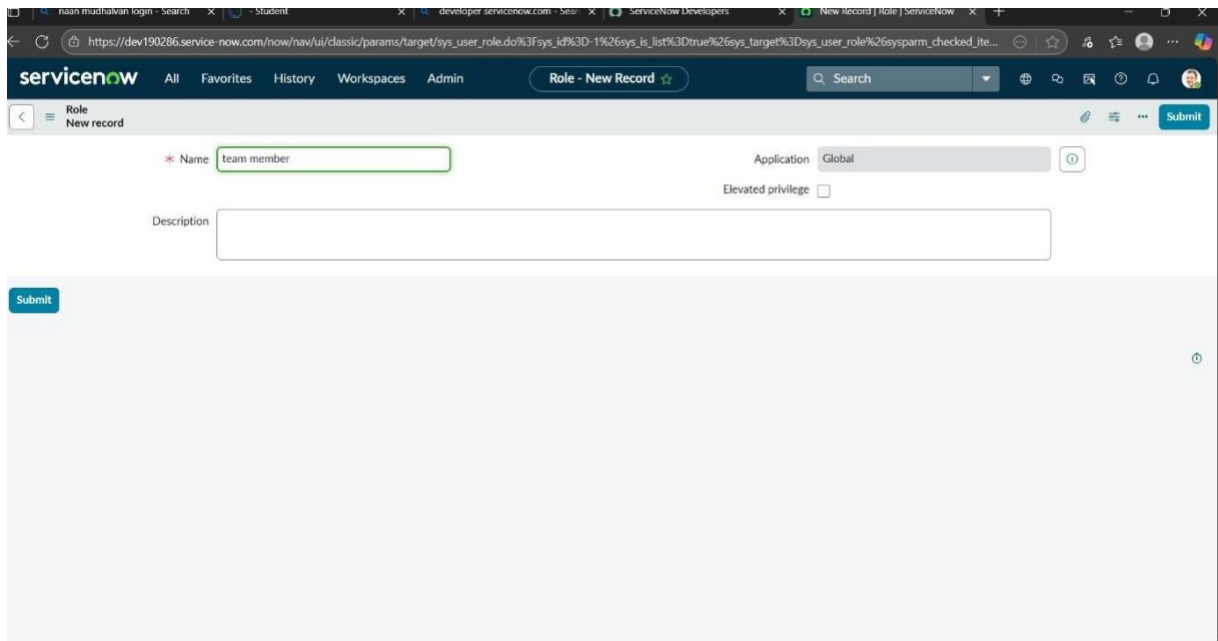
1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit.

The screenshot shows the ServiceNow 'Role - project member' form. The 'Name' field is filled with 'project member'. The 'Application' dropdown is set to 'Global'. There is an 'Elevated privilege' checkbox. Below the form are tabs for 'Contains Roles', 'Applications with Role', 'Modules with Role', and 'Custom Tables'. The 'Contains Roles' tab is active, showing a search bar and a table with no records displayed.

Create another 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 titled 'Role - New Record' and has a 'Submit' button in the top right corner. The 'Name' field is labeled with a red asterisk and contains the text 'team member'. The 'Application' field is labeled 'Global'. The 'Elevated privilege' checkbox is unchecked. The 'Description' field is empty. 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

servicenow All Favorites History Workspaces Admin Table - New Record

Table New record

* Name

Extends table

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

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
+	<input type="text" value="st"/>					

8. Click onsubmit

ServiceNow Developers New Record | Table | ServiceNow

servicenow All Favorites History Workspaces Admin Table - New Record

Table New record

* Name

Extends table

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

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
+	<input type="text" value="(empty)"/>					

Insert a new row...

Create one more table:

9. Create another table as: tasktable2 and fill with following details.

10. Click on submit.

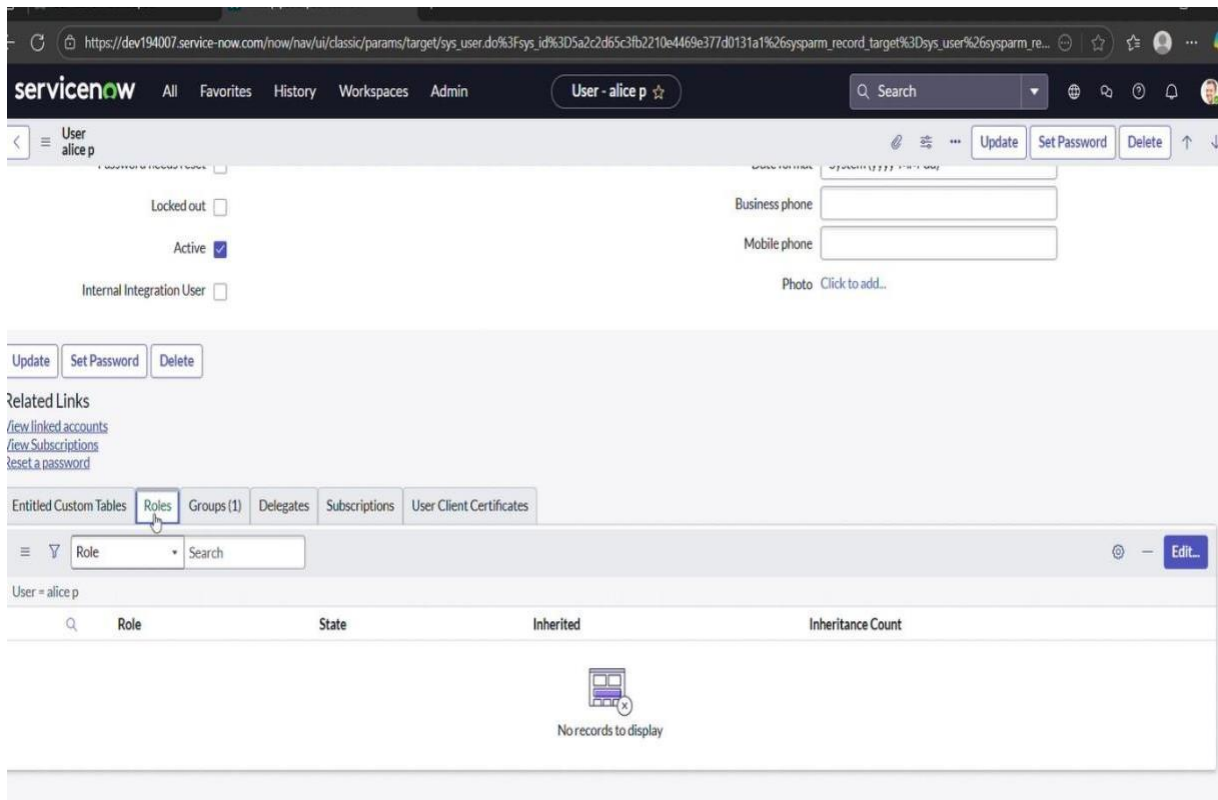
Column label	Type	Reference	Max length	Default value	Display
Updated by	String	{empty}		40	false
Updates	Integer	{empty}		40	false
Updated	Date/Time	{empty}		40	false
Sys ID	Integer	{empty}		32	false
Created by	String	{empty}		40	false
Created	Date/Time	{empty}		40	false
task id	Integer				false
task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

Submit Cancel

Milestone 5: Assign user to groups

Activity 1: Assign user 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 and bob and save



Milestone 6: Assign roles to users

Activity 1: Assign roles to alice user

1. Open service now. 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 addu _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

Activity2:Assignrolestobobuser

1. Openservicenow.ClickonAll>>searchforuser
2. Selecttablesunder systemdefinition
3. Selectthebobp user
4. Underteammember
5. Clickonedit
6. Selectteammemberandgivetableroleandsave
7. ClickonprofileiconImpersonate usertobob
8. We cansee the tasktable2.

The screenshot shows the ServiceNow User form for user 'bob p'. The form is divided into two main sections: personal information and system settings. The personal information section includes fields for User ID (bob), First name (bob), Last name (p), Title, Department, Password needs reset, Locked out, Active (checked), and Internal Integration User. The system settings section includes fields for Email (bob@gmail.com), Identity type (Human), Language (None), Calendar integration (Outlook), Time zone (System (America/Los Angeles)), Date format (System (yyyy-MM-dd)), Business phone, Mobile phone, and Photo (Click to add...). Below the form are buttons for Update, Set Password, and Delete. At the bottom, there are tabs for Entitled Custom Tables, Roles, Groups (1), Delegates, Subscriptions, and User Client Certificates. A search bar and a table header are also visible at the bottom.

Milestone7:Applicationaccess

Activity1:Assigntableaccesstoapplication

1. whilecreatingatableitautomaticallycreateapplicationandmoduleforthattable
2. Gotoapplicationnavigatorsearchforsearchprojecttableapplication
3. Clickoneditmodule
4. Giveprojectmemberrolestothatapplication
5. Searchfortasktable2and click oneditapplication.
6. Givetheprojectmemberandteammemberrolefortasktable2 application

The screenshot shows the ServiceNow Application Menu form for 'project table'. The form is divided into several sections: Roles (u.project_table_user), Category (Custom Applications), Hint, and Description. Below these sections are buttons for Update and Delete. At the bottom, there is a table with columns: Title, Table, Active, Filter, Order, Link type, Device type, Roles, and Updated. The table is currently empty.

Milestone8:Accesscontrollist Activity

1: Create ACL

1. Openservicenow.
2. ClickonAll>>search forACL
3. SelectAccessControl(ACL) undersystemsecurity
4. Clickonelevaterole
5. Click onnew

The screenshot shows the ServiceNow 'Access Controls' 'New record' form. At the top, there is a warning message: 'Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL.' The form contains several fields: 'Type' (dropdown menu set to 'record'), 'Operation' (dropdown menu set to 'write'), 'Decision Type' (dropdown menu set to 'Allow If'), 'Application' (dropdown menu set to 'Global'), 'Active' (checkbox checked), and 'Advanced' (checkbox unchecked). There is also an 'Admin overrides' checkbox checked. Below these is a 'Protection policy' dropdown menu set to '-- None --'. The 'Name' field is a dropdown menu set to '-- None --'. The 'Description' field is a large text area. At the bottom, there is an 'Applies To' section with two buttons: 'Add Filter Condition' and 'Add OR Clause'. The bottom of the form shows a 'Conditions' section with a dropdown arrow.

6. Fillthefollowingdetailsto createanewACL
7. Scrolltdownunderrequiresrole
8. Doubleclickoninsertanewrow
9. Givetasktableandteammemberrole
10. Clickonsubmit
11. Similarlycreate4 aclforthefollowingfields
12. Clickonprofile ontoprighside

13. Click on impersonate user

14. Select bob user

15. Go to all and select task table 2 in the application menu bar

16. Comment and status fields have the edit access

Milestone 9: Flow

Activity 1: Create a Flow to Assign operation stick to group

1. Open service now.

2. Click on All >> search for Flow Designer

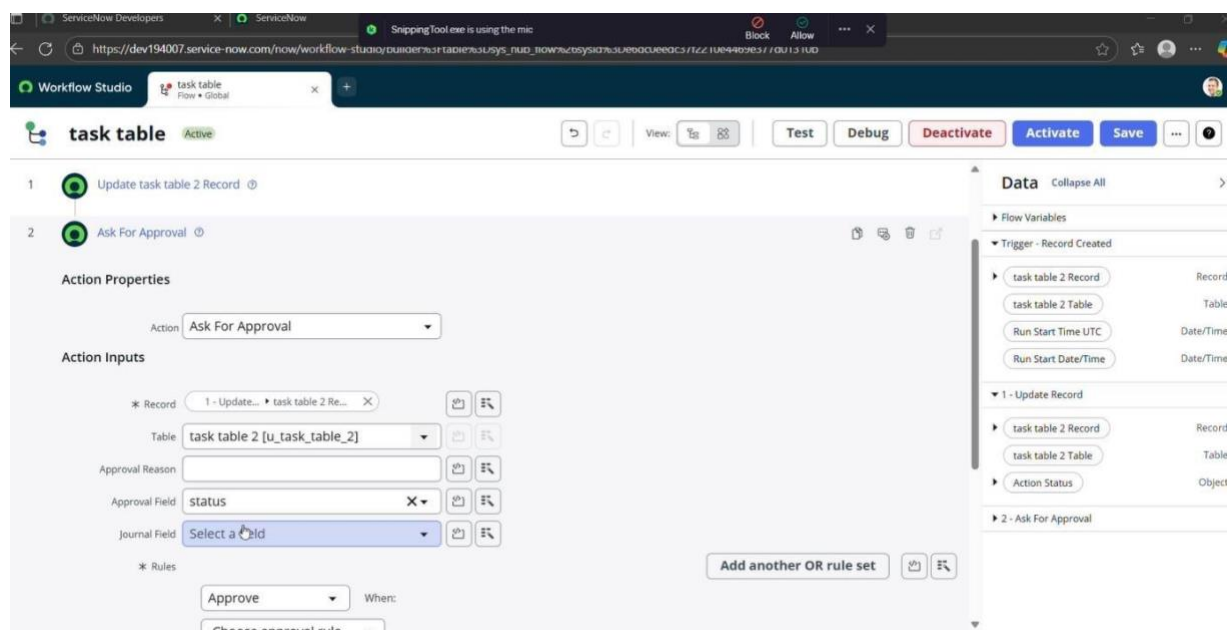
3. Click on Flow Designer under Process Automation.

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 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

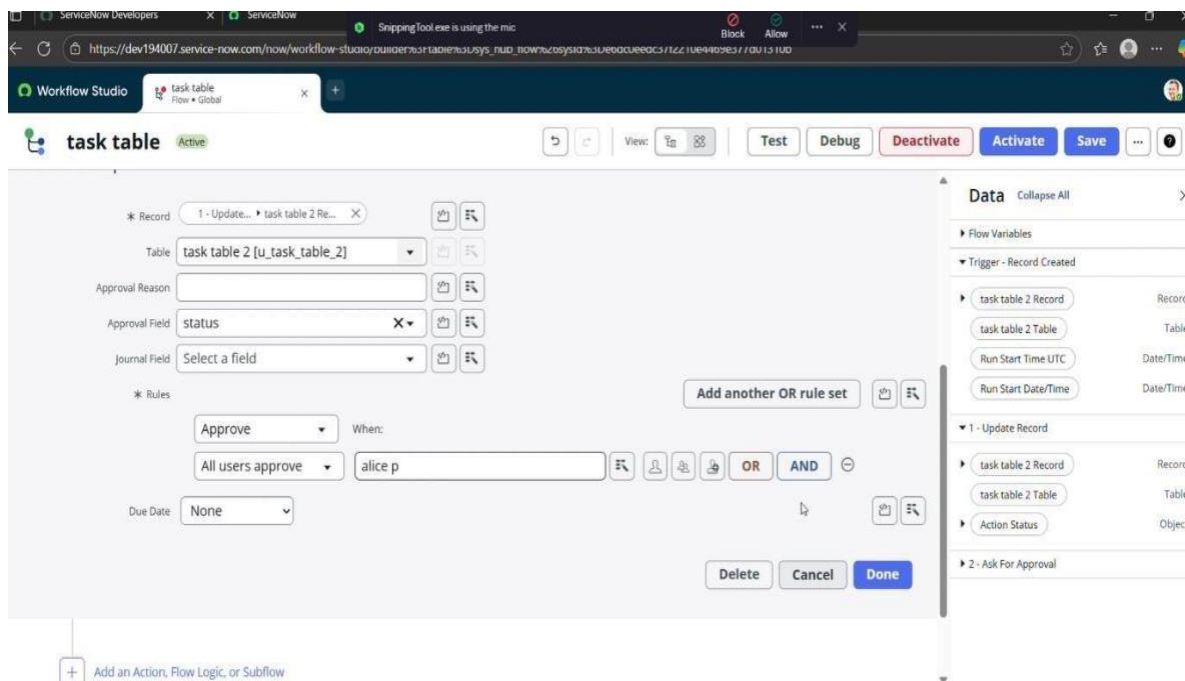
Field: comments Operator: is Value: feedback Field:

assigned to Operator: is Value: bob

5. After that click on Done.

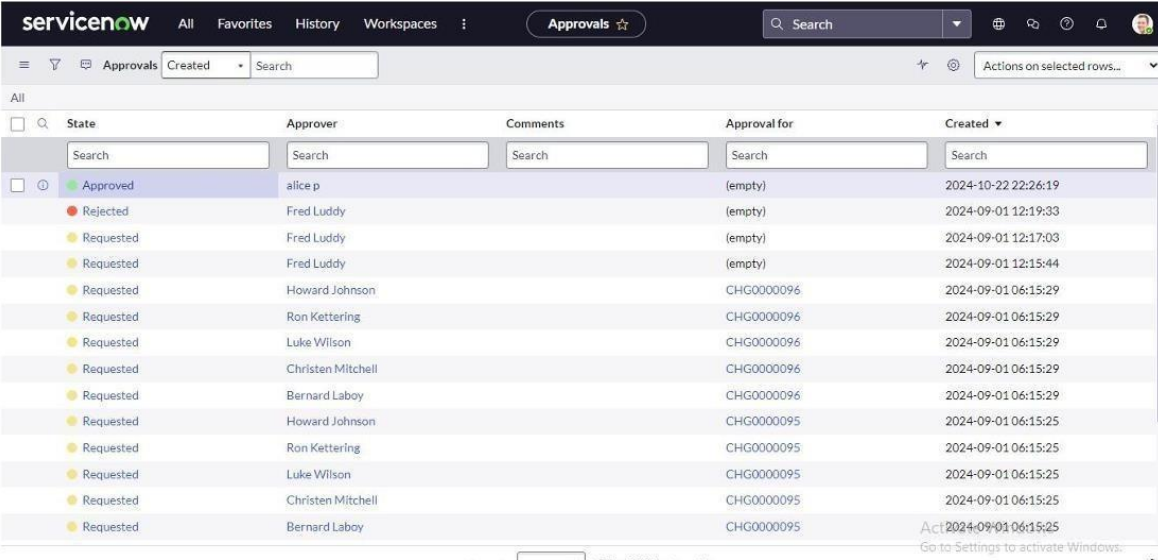
Next step:

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.



Nextstep:

1. NowunderActions.
2. ClickonAddanaction.
3. Selectactioninthat,searchfor“askforapproval”.
4. InRecordfield dragthefieldsfromthedata navigationfromRightside
5. Tablewillbeautoassignedafterthat
6. Givetheapprovefieldas“status”
7. Giveapproverasalicep
8. Click onDone.
9. Gotoapplicationnavigatorsearchfortasktable.
10. Itstatusfieldisupdatedtocompleted
11. Gotoapplication navigatorandsearchfor myapproval
12. Clickonmyapprovalundertheservice desk.
13. Alicepgot approvalrequestthenrightclickonrequestedthenselectapproved



The screenshot displays the ServiceNow 'Approvals' page. The interface includes a top navigation bar with 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and an 'Approvals' button. A search bar is present on the right. Below the navigation bar, there's a filter section with 'Approvals' selected and a 'Created' dropdown. The main area shows a table of approval requests with columns: State, Approver, Comments, Approval for, and Created. The first row is highlighted in blue and shows an 'Approved' state for 'alice p' with a creation date of '2024-10-22 22:26:19'. Other rows show 'Rejected' and 'Requested' states for various approvers like 'Fred Luddy', 'Howard Johnson', 'Ron Kettering', 'Luke Wilson', 'Christen Mitchell', and 'Bernard Laboy'. The bottom of the page shows a pagination bar indicating '1 to 20 of 664' items.

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 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.