

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

Team ID: NM2025TMID16988

Team Size: 4

Team member:

Team Leader: SIVASAGAR D

Team member 1: MUGILAN PV

Team member 2: MAYURAN J

Team member 3: PARAMASIVAM A

Problem Statement:

In a small project management team with a Project Manager (Alice) and a Team Member (Bob), there is a need to manage tasks efficiently and ensure accountability. Currently, there are no clear **role definitions**, **access controls**, or **structured workflows**, which leads to confusion in task assignments and makes it difficult to track progress.

Objective:

1. Define User Roles Clearly:

- Assign specific responsibilities to Alice (Project Manager) and Bob (Team Member).
- Ensure clarity in permissions within the project management tool.

2. Implement Access Control Mechanisms:

- Restrict Bob's access to project creation and editing.
- Allow Bob to only view and update assigned tasks.

3. Streamline Workflow Processes:

- Create structured workflows for task assignment and tracking.
- Enable Alice to assign tasks and monitor progress easily.



Skills:

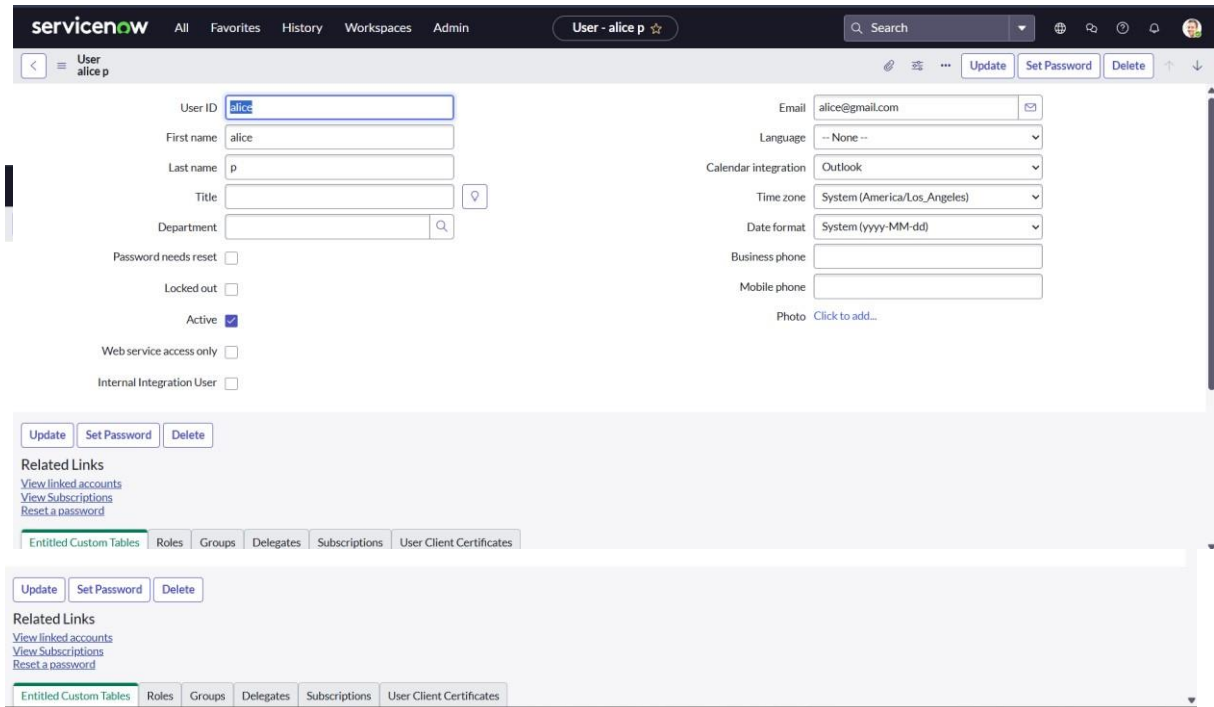
- Users
- Groups
- Roles
- Tables
- Access Control List
- Flow Designer

TASK INITIATION

Milestone 1: Users

Activity 1: Create Users

1. Open ServiceNow.
2. Go to **All** → **search “Users”** → **select Users under System Security**.
3. Click **New**, fill in user details, and submit.
4. Repeat the same process to create another user.



The screenshot shows the ServiceNow user profile page for 'User - alice p'. The page includes a navigation bar with 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The user profile 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:** ☐

Below the form, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Related Links' section includes links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. A tabbed interface at the bottom shows 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'.

Milestone 2: Groups

Activity 1: Create Groups

1. Open ServiceNow.
2. Go to **All** → **search "Groups"** → **select Groups under System Security**.
3. Click **New**, fill in group details, and submit.

servicenow All Favorites History Workspaces Admin **Group - project team** Search

< Group project team Update Delete

Name: Group email:

Manager: Parent:


Description:

Update Delete

Roles Group Members Groups

Created Search Edit...

Group = project team

Created	Role	Granted by	Inherits
 No records to display			

Milestone 3: Roles

Activity 1: Create roles

1. Open ServiceNow.
2. Go to **All** → **search “Roles”** → **select Roles under System Security**.
3. Click **New**, enter role details, and submit.
4. Create another role by repeating the process.

servicenow All Favorites History Workspaces Admin **Role - project member**

Role
project member

Name: project member Application: Global

Elevated privilege: ☐

Description:

Related Links
[Run Point Scan](#)

Contains Roles Applications with Role Modules with Role Custom Tables

Role = project member

No records to display

servicenow All Favorites History Workspaces Admin **Role - Team member**

Role
Team member

Name: Team member Application: Global

Elevated privilege: ☐

Description:

Related Links
[Run Point Scan](#)

Contains Roles Applications with Role Modules with Role Custom Tables

Role = Team member

No records to display

Milestone 4: Table

Activity 1: Create a Table

1. Open ServiceNow.
2. Navigate to **All** → **Tables (under System Definition)**.
3. Click on **New**.
4. Fill in the details:

- **Label:** Project Table
 - **Enable Create Module & Create Mobile Module**
 - **Under New Menu Name:** Project Table
 - **Add necessary Table Columns**
5. Click on **Submit**.
 6. Create another table named **Task Table 2** with the required details and click **Submit**.

servicenow All Favorites History Workspaces Admin **Table - project table** Search

Table project table Delete Update Delete All Records

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 Application

* Name

Columns Controls Application Access

Table Columns Column label Search 1 to 13 of 13 New

Column label	Type	Reference	Max length	Default value	Display
Created	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
description	String	(empty)	40		false
end date	Date	(empty)	40		false
project id	Integer	(empty)	40		false
project manager	String	(empty)	40		false
project name	String	(empty)	40		false
start date	Date	(empty)	40		false
status	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updated	Date/Time	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Insert a new row...					

Delete Update Delete All Records

servicenow All Favorites History Workspaces Admin **Table - task table2** Search

Table task table2 Delete Update Delete All Records

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 task table2 Application Global

* Name u_task_table2

Columns Controls Application Access

Table Columns Column label Search 1 to 12 of 12 New

Column label	Type	Reference	Max length	Default value	Display
assigned to	String	(empty)	40		false
comments	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
due date	Date	(empty)	40		false
status	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false

servicenow All Favorites History Workspaces Admin **Table - task table2** Search

Table task table2 Delete Update Delete All Records

Dictionary Entries

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

Insert a new row...

Delete Update Delete All Records

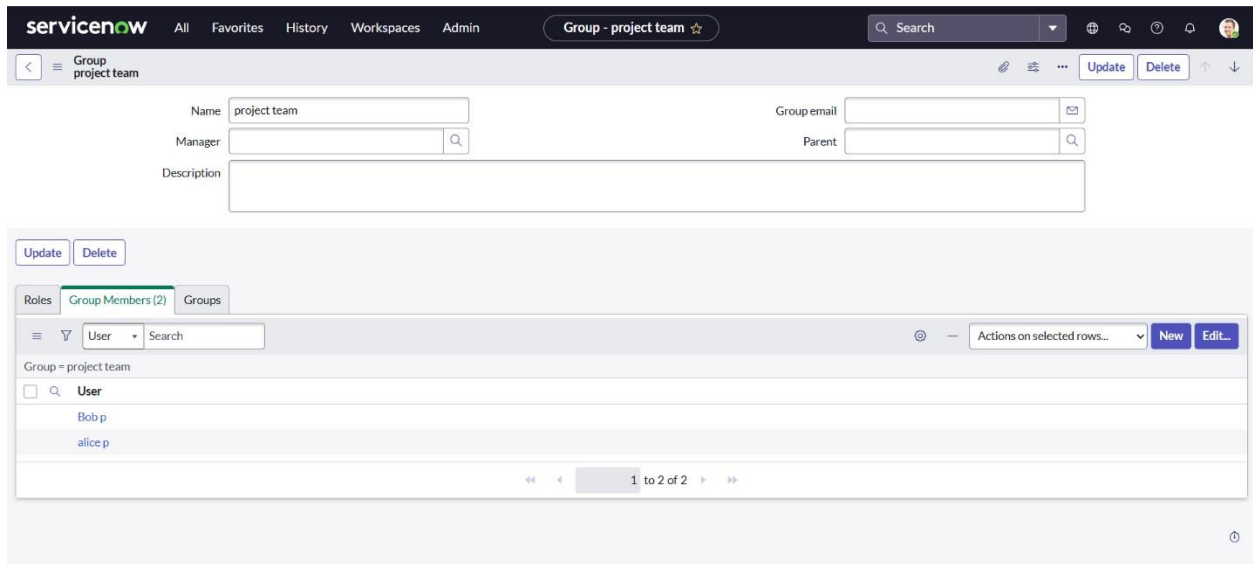
Related Links
Form Builder

Milestone 5: Assign users to groups

Activity 1: Assign users to the project team group

1. Open ServiceNow.
2. Navigate to **All** → **Groups**.
3. Select **Project Team Group**.
4. Under **Group Members**, click **Edit**.

5. Add **Alice P** and **Bob P** as group members and save.



The screenshot shows the ServiceNow 'Group - project team' configuration page. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', 'Admin', and a search bar. The page title is 'Group - project team'. Below the title, there are fields for 'Name' (project team), 'Group email', 'Manager', 'Parent', and 'Description'. There are 'Update' and 'Delete' buttons. Below these fields, there is a tabbed interface with 'Roles', 'Group Members (2)', and 'Groups' tabs. The 'Group Members (2)' tab is active, showing a list of users: 'Bob p' and 'alice p'. The list has a search bar and a 'User' dropdown. At the bottom, there is a pagination bar showing '1 to 2 of 2'.

Milestone 6: Assign roles to users

Activity 1: Assign roles to the Alice user

1. Open ServiceNow and search for **Users**.
2. Select **Project Manager user (Alice P)**.
3. Under **Roles**, click **Edit**.
4. Assign **Project Member**, **u_project_table**, and **u_task_table** roles.
5. Save and update the form.

servicenow
All
User - alice p

User ID:
Email:

First name:
Language:

Last name:
Calendar integration:

Title:
Time zone:

Entitled Custom Tables
Roles (3)
Groups (1)
Delegates
Subscriptions
User Client Certificates

Role
Search


User = alice p

	Role	State	Inherited	Inheritance Count
<input type="checkbox"/>	u_task_table2_user	Active	false	
<input type="checkbox"/>	project member	Active	false	
<input checked="" type="checkbox"/>	u_project_table_user	Active	false	

1 to 3 of 3

- Activity 2: Assign roles to the Bob user**
1. Open ServiceNow and search for **Users**.
 2. Select **Team Member user (Bob P)**.
 3. Under **Roles**, click **Edit**.



servicenow All : 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

Time zone

System (America/Los_Angeles)

Department

Date format

System (yyyy-MM-dd)

Password needs reset

☐

Business phone

Locked out

☐

Mobile phone

Entitled Custom Tables

Roles (2)

Groups (1)

Delegates

Subscriptions

User Client Certificates

Role

Search

Actions on selected rows...

Edit...

User = Bob p

<input type="checkbox"/>	Role	State	Inherited	Inheritance Count
<input type="checkbox"/>	Team member	Active	false	
<input type="checkbox"/>	u_task_table2_user	Active	false	

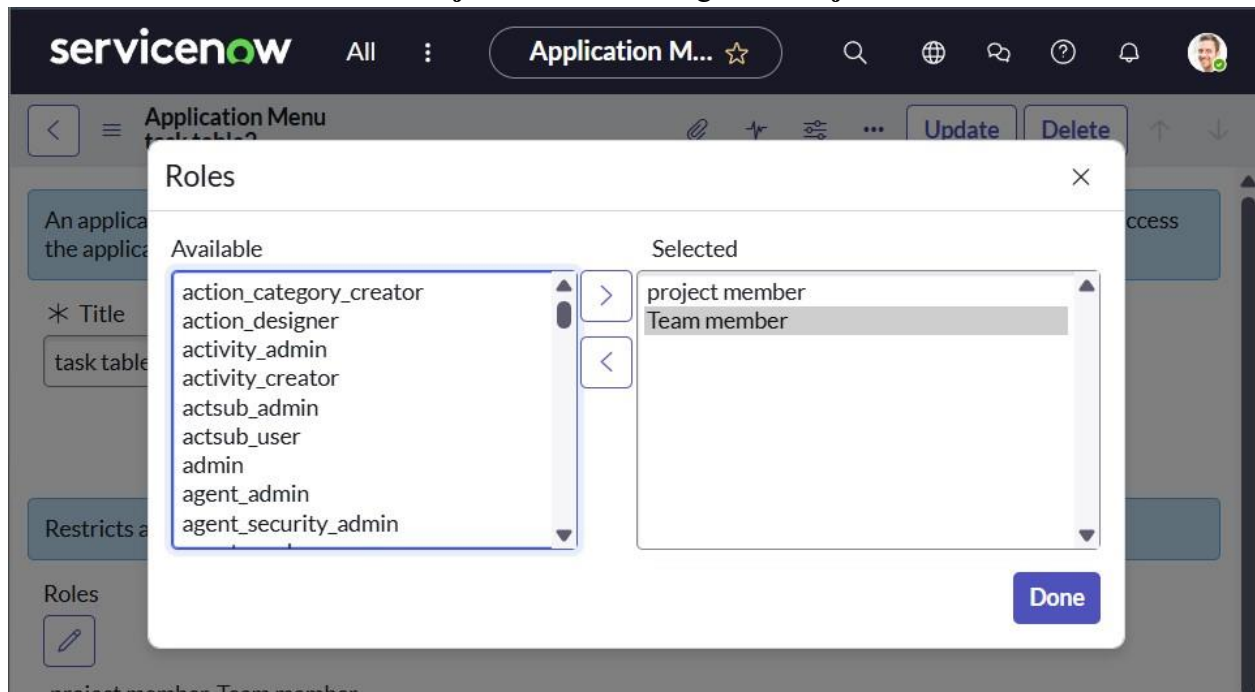
1 to 2 of 2

4. Assign **Team Member** role and appropriate table roles.
5. Save and update the form.
6. Impersonate Bob to verify that he has access to **Task Table 2**.

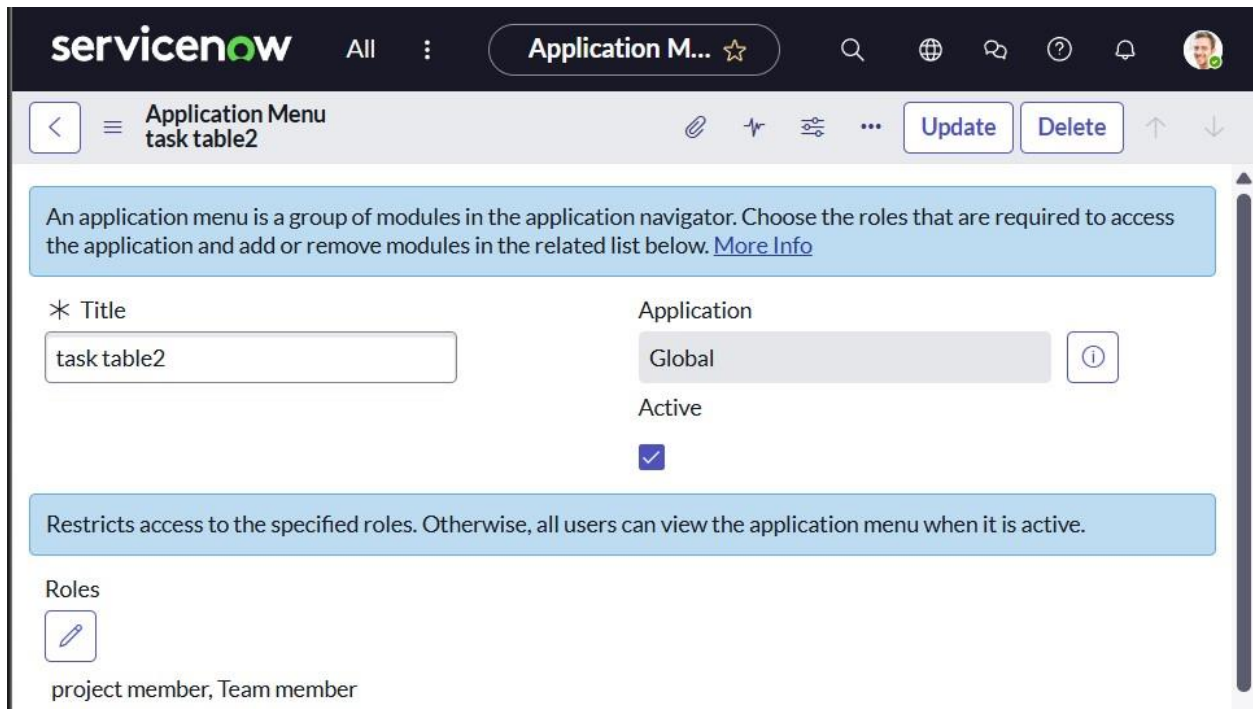
Milestone 7: Application access

Activity 1: Assign table access to the application

1. When a table is created, an application and module are automatically created.
2. Navigate to the application in the Application Navigator.
3. Edit the module for the **Project Table** and assign the **Project Member** role.



4. Edit the module for **Task Table 2** and assign both **Project Member** and **Team Member** roles.



servicenow All : Application M... ☆

< ≡ Application Menu
task table2

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: task table2

Application: Global ⓘ

Active: ☒

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

Roles

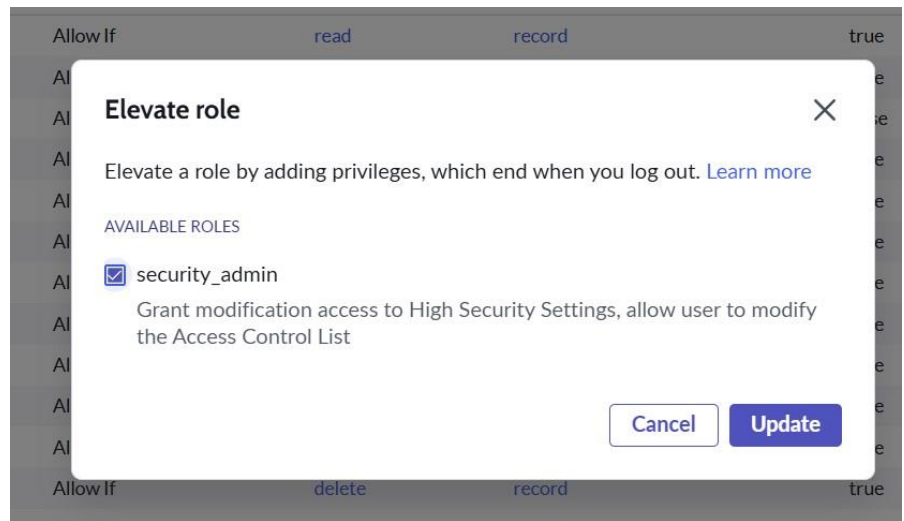
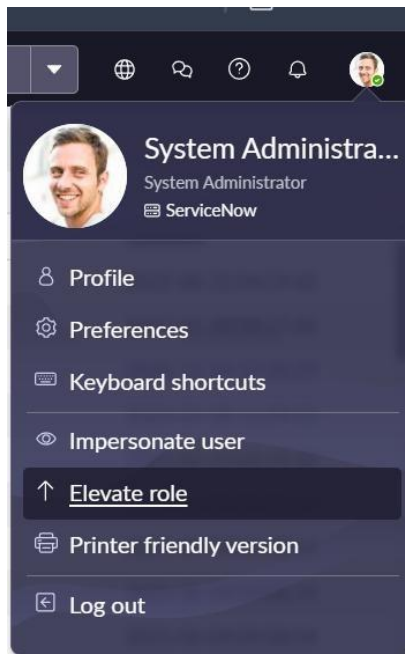
✎

project member, Team member

Milestone 8: Access control list

Activity 1: Create ACL

1. Open ServiceNow.
2. Navigate to **All** → **Access Control (ACL)** under **System Security**.
3. Click on **Elevate Role** → **New**.
4. Fill in the ACL details.
5. Under **Requires Role**, add **Task Table** and **Team Member role**.
6. Submit



7. Similarly, create four ACLs for different fields.

8. **Verification:**

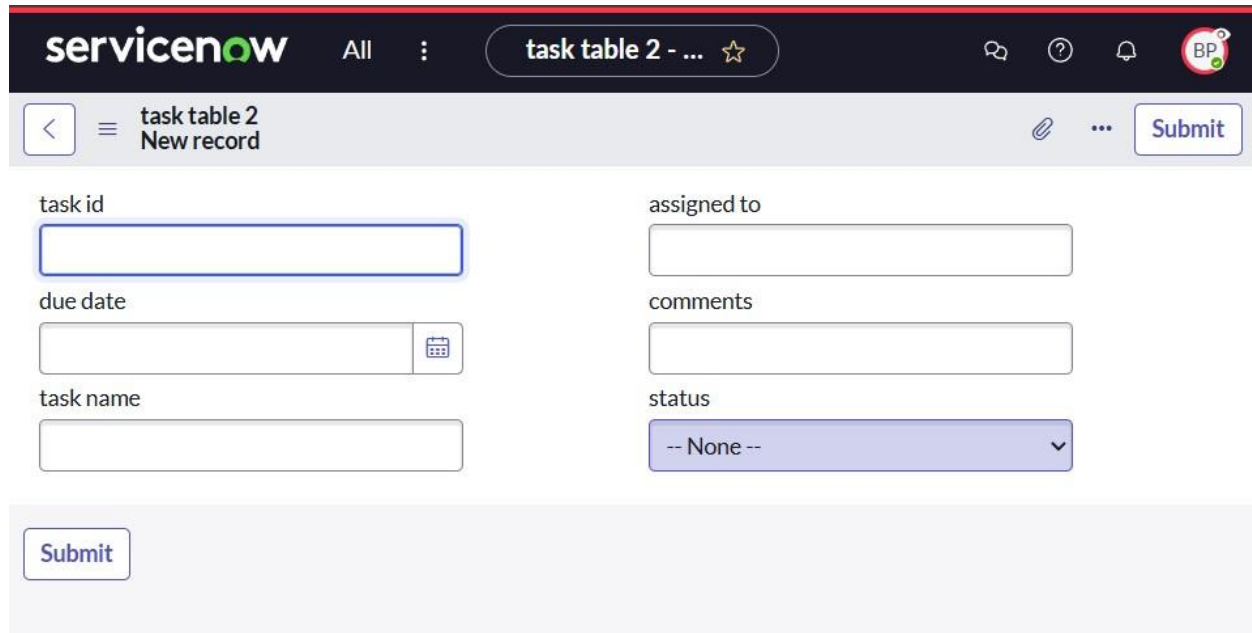
- Impersonate Bob.
- Navigate to **Task Table 2**.
- Confirm that **Comment** and **Status** fields are editable.

servicenow All Favorites History Workspaces Admin Access Controls Search

Access Controls Name Search Actions on selected rows... New

All > Name >= u_task

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_task_table_2	Allow If	delete	record	true	admin	2025-09-03 00:20:38
u_task_table_2	Allow If	write	record	true	admin	2025-09-03 00:20:38
u_task_table_2	Allow If	create	record	true	admin	2025-09-03 00:20:38
u_task_table_2	Allow If	read	record	true	admin	2025-09-03 00:20:38
u_task_table_2u_assigned_to	Allow If	write	record	true	admin	2025-09-05 21:53:09
u_task_table_2u_due_date	Allow If	write	record	true	admin	2025-09-05 21:53:43
u_task_table_2u_status	Allow If	write	record	true	admin	2025-09-05 21:45:38
u_task_table_2u_task_id	Allow If	write	record	true	admin	2025-09-05 21:54:34
u_task_table_2u_task_name	Allow If	write	record	true	admin	2025-09-05 21:55:22
VA Channel Integration ACL	Allow If	execute	REST_Endpoint	true	admin	2023-04-05 00:28:13
VA Designer Config	Allow If	execute	REST_Endpoint	true	admin	2024-05-22 12:09:23
VaCallbackPropertyUtil	Allow If	execute	client_callable_script_include	true	admin	2022-05-09 01:51:24
ValidateAesVersion	Allow If	execute	client_callable_script_include	true	admin	2022-01-11 10:48:04
ValidateAlternatePortal	Allow If	execute	client_callable_script_include	true	admin	2024-03-06 16:53:36
ValidateAppVersionAjax	Allow If	execute	client_callable_script_include	true	admin	2021-10-05 03:00:09



Milestone 9: Flow

Activity 1: Create a Flow to assign an operations ticket to a group

1. Open ServiceNow.
2. Navigate to **All** → **Flow Designer** (under Process Automation).
3. Click on **New Flow**.
4. Enter details:
 - **Flow Name:** Task Table ○

Application: Global Steps:

- **Trigger:** Set trigger to *Record Created* on **Task Table** with conditions:
 - Status = In Progress ○
 - Comments =
 - Feedback ○
 - Assigned To = Bob
- **Action 1:** *Update Records* → Set **Status = Completed**.
- **Action 2:** *Ask for Approval* → Assign approval to **Alice P**.

Execution:

- Bob updates the task → Status changes to *Completed*.
- Alice receives an approval request → Approves it.
- Task is successfully closed.



Workflow Studio

task table

task table Flow

task table

inactive

View: [Icon] [Icon]

Test

Activate

Save

[More]

[Help]

TRIGGER

task table 2 Created where (status is In progress, and comments is Feedback, and assigned to is bob)

Trigger: Created

* Table: task table 2 [u_task_table_2]

Condition: All of these conditions must be met

status

is

In progress

OR

AND

comments

is

Feedback

OR

AND

assigned to

is

bob

OR

AND

or

New Criteria

Advanced Options

Delete

Cancel

Done

ACTIONS

Select multiple

Collapse Action 1 - Global - Update Record

1 Update task table 2 Record

Action: Update Record

* Record: Trigger - Re... task table 2 R...

* Table: task table 2 [u_task_table_2]

* Fields: status Completed

+ Add field value

Delete

Cancel

Done

Status: Modified | Application: Global



Workflow Studio task table Flow

task table Inactive

View: [Icons] Test Activate Save ...

Action: Ask For Approval

* Record: 1 - Update... task table 2 Re... [Icons]

Table: task table 2 [u_task_table_2] [Icons]

Approval Field: status [Icons]

Journal Field: Select a field [Icons]

* Rules

Approve [Icons] When: All users approve [Icons]

alice p X [Icons]

Due Date: None [Icons]

Add another OR rule set [Icons]

[Icons] OR AND [Icons]

Delete Cancel Done

Status: Modified Application: Global 0

servicenow
All
Approvals

Search
Approver
Search
Actions on selected rows...

① Approved task table 2: Created 2025-09-05 23:42:22

All > Approver Name >= alice

State	Approver	Comments	Approval for	Created
<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>
Approved	alice p		(empty)	2025-09-06 00:03:39
Requested	Bernard Laboy		CHG0000053	2025-01-07 05:09:38
Requested	Bernard Laboy		CHG0000071	2025-01-07 05:12:10
Requested	Bernard Laboy		CHG0000037	2025-01-07 05:04:51
Requested	Bernard Laboy		CHG0000076	2025-01-07 05:13:15
Requested	Bernard Laboy		CHG0000094	2025-01-07 05:15:21
Requested	Bernard Laboy		CHG0000051	2025-01-07 05:09:31
Requested	Bernard Laboy		CHG0000073	2025-01-07 05:10:10

1 to 20 of 664

Conclusion:

This scenario demonstrates a structured approach to project management by clearly defining roles and workflows. Alice, as the Project Manager, oversees task assignments and approvals, while Bob, as the Team Member, executes and updates tasks. The use of tables simplifies project tracking, and the integration of ACLs and workflows ensures accountability, transparency, and smooth communication. Overall, this system enhances project efficiency and leads to successful project completion.