

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

**Team ID:** NM2025TMID14177

**Team Size:** 4

**Team member:**

**Team Leader:** ALFI JAMES

**Team member 1:** PURVAJA S

**Team member 2:** NITHYAA SRI S

**Team member 3:** SWATHI 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:

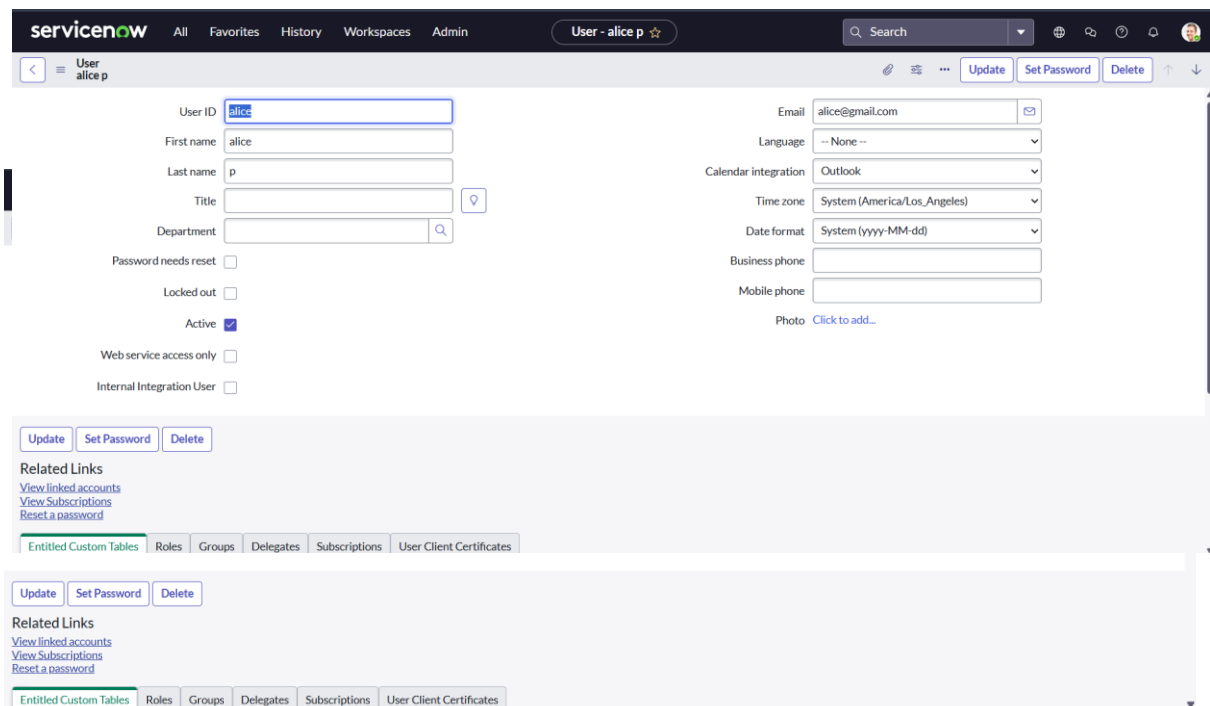
- Users
- Groups
- Roles
- Tables
- Access Control List
- Flow Designer

## 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 creation form for 'User - alice p'. The form includes 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:** ☐

Buttons at the top right: **Update**, **Set Password**, **Delete**.

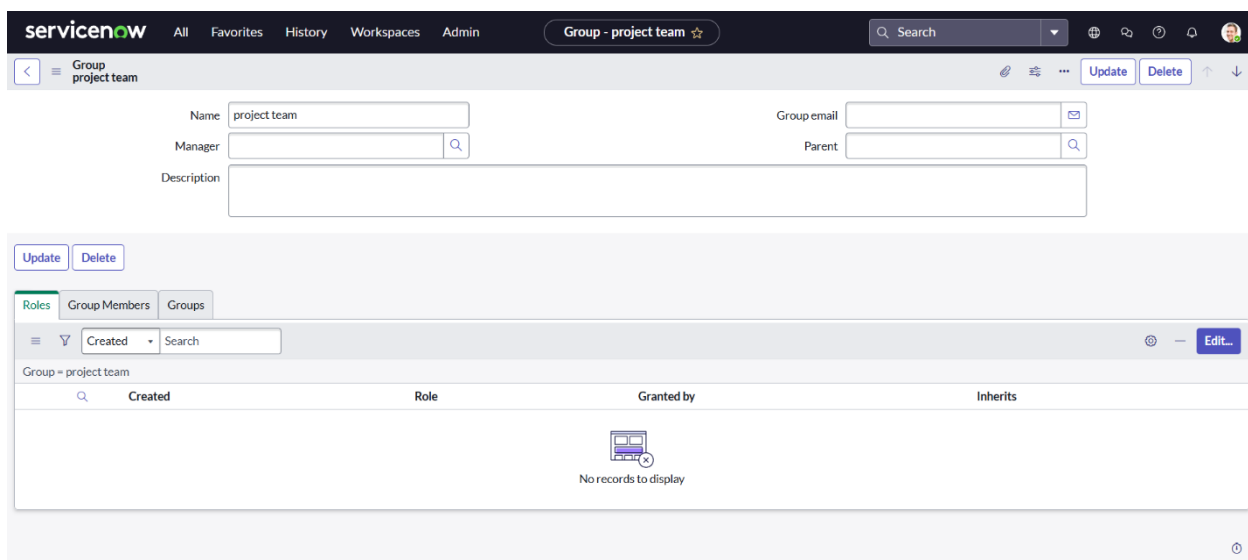
**Related Links:** [View linked accounts](#), [View Subscriptions](#), [Reset a password](#).

Navigation tabs: **Entitled Custom Tables**, **Roles**, **Groups**, **Delegates**, **Subscriptions**, **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 project team 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** ☆ Search

< Role project member Update Delete

Name project member Application Global Elevated privilege ☐

Description

Update Delete

Related Links  
[Run Point Scan](#)

Contains Roles Applications with Role Modules with Role Custom Tables

for text Search New Edit...

Role = project member

Contains

No records to display

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

< Role Team member Update Delete

Name Team member Application Global Elevated privilege ☐

Description

Update Delete

Related Links  
[Run Point Scan](#)

Contains Roles Applications with Role Modules with Role Custom Tables

for text Search New Edit...

Role = Team member

Contains

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 Global

\* Name

Columns Controls Application Access

Table Columns Column label Search 1 to 13 of 13 New

Dictionary Entries

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  Application Global

\* Name

Columns Controls Application Access

Table Columns Column label Search 1 to 12 of 12 New

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



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.

servicenow All Favorites History Workspaces Admin Group - project team Search

Group project team Update Delete

Name project team Group email  
Manager Parent  
Description

Update Delete

Roles Group Members (2) Groups

User Search Actions on selected rows... New Edit...

Group = project team

User

Bob p

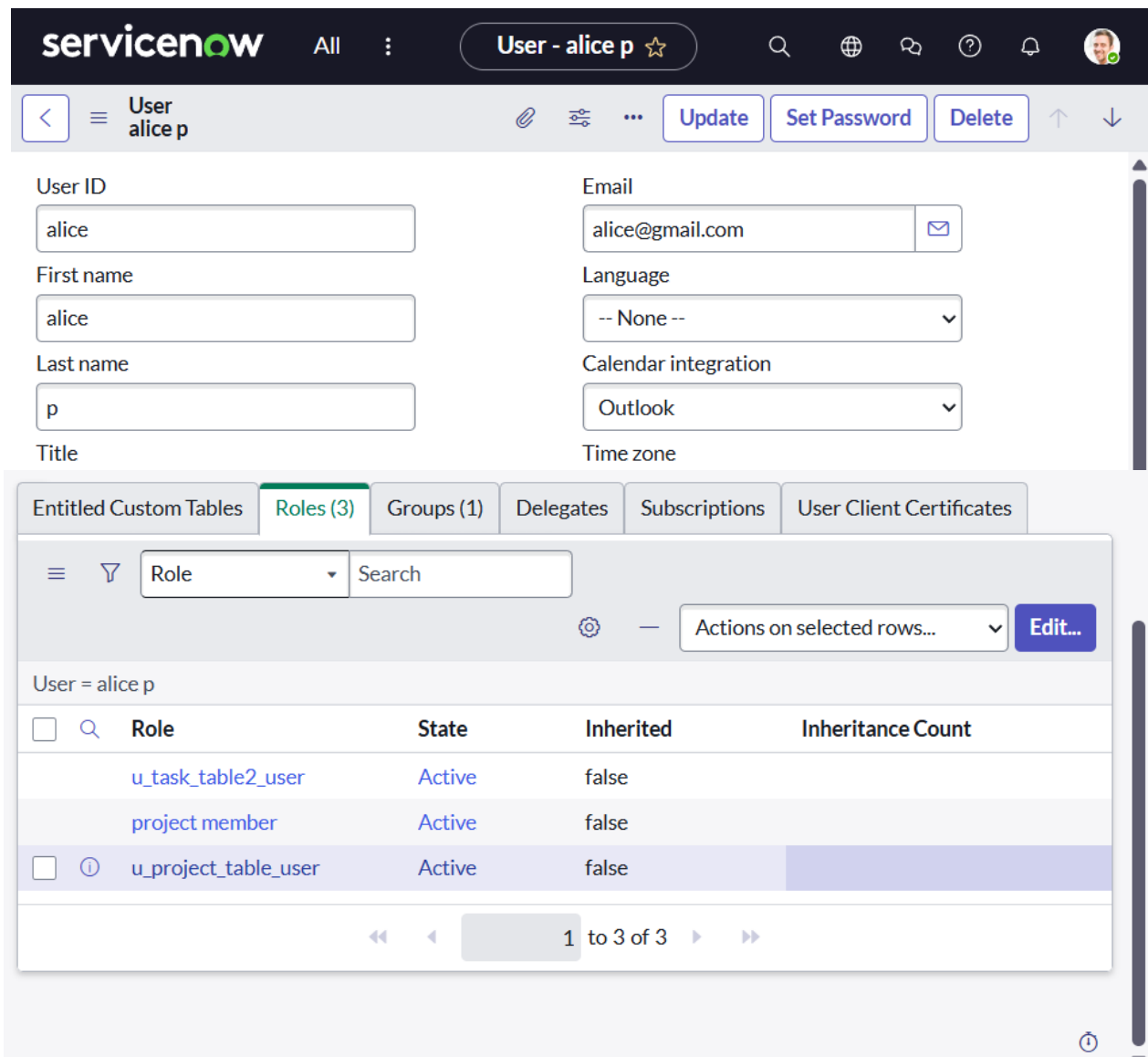
alice p

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 alice p [Update] [Set Password] [Delete] ↑ ↓

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 [⚙️] — Actions on selected rows... ▾ [Edit...]

User = alice p

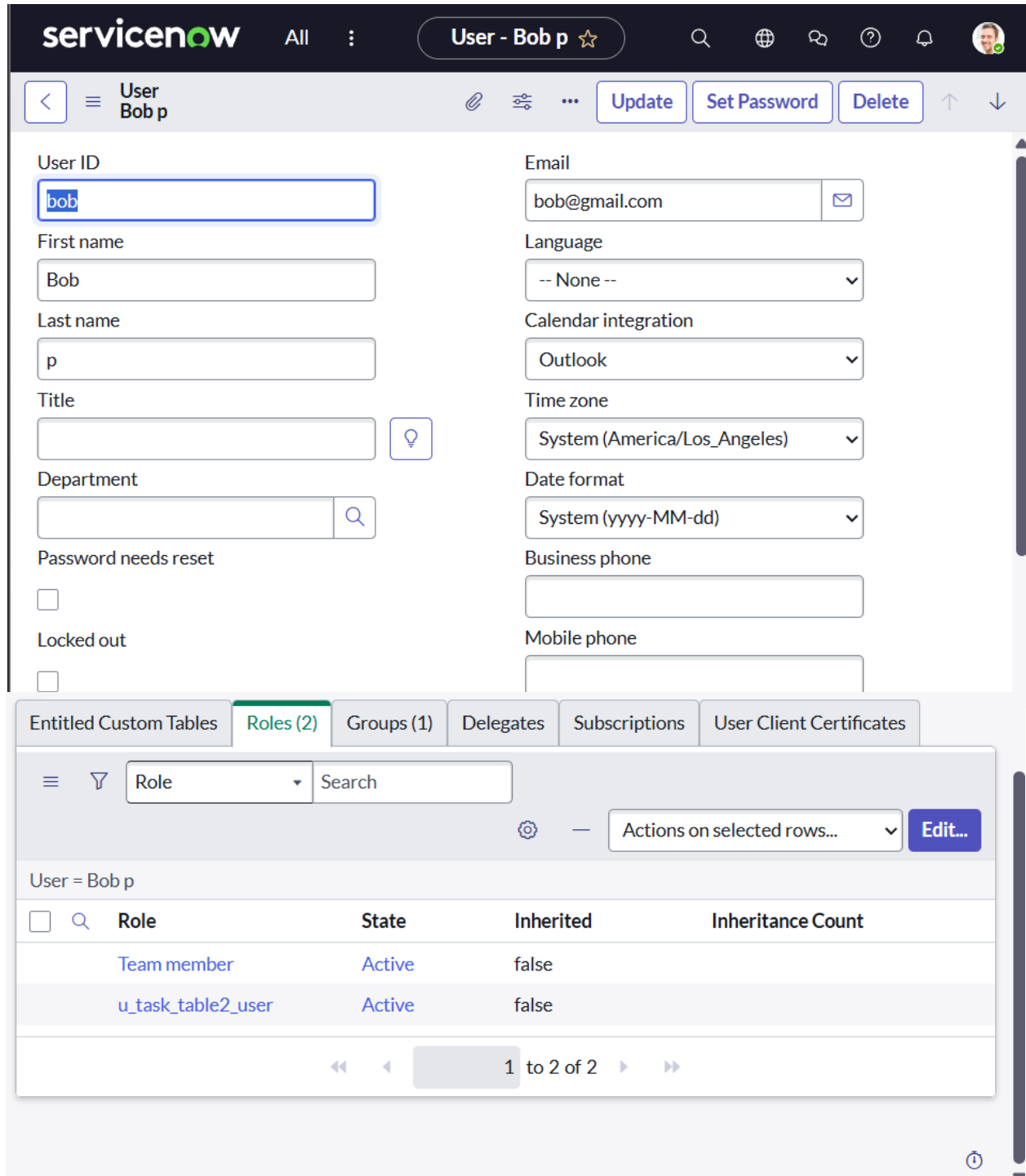
<input type="checkbox"/>	<input type="text" value="Role"/>	State	Inherited	Inheritance Count
<input type="checkbox"/>	u_task_table2_user	Active	false	
<input type="checkbox"/>	project member	Active	false	
<input type="checkbox"/>	u_project_table_user	Active	false	

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**.



The screenshot shows the ServiceNow user profile for 'User - Bob p'. The 'Roles' tab is selected, displaying a table of assigned roles.

Role	State	Inherited	Inheritance Count
Team member	Active	false	
u_task_table2_user	Active	false	

Navigation: 1 to 2 of 2

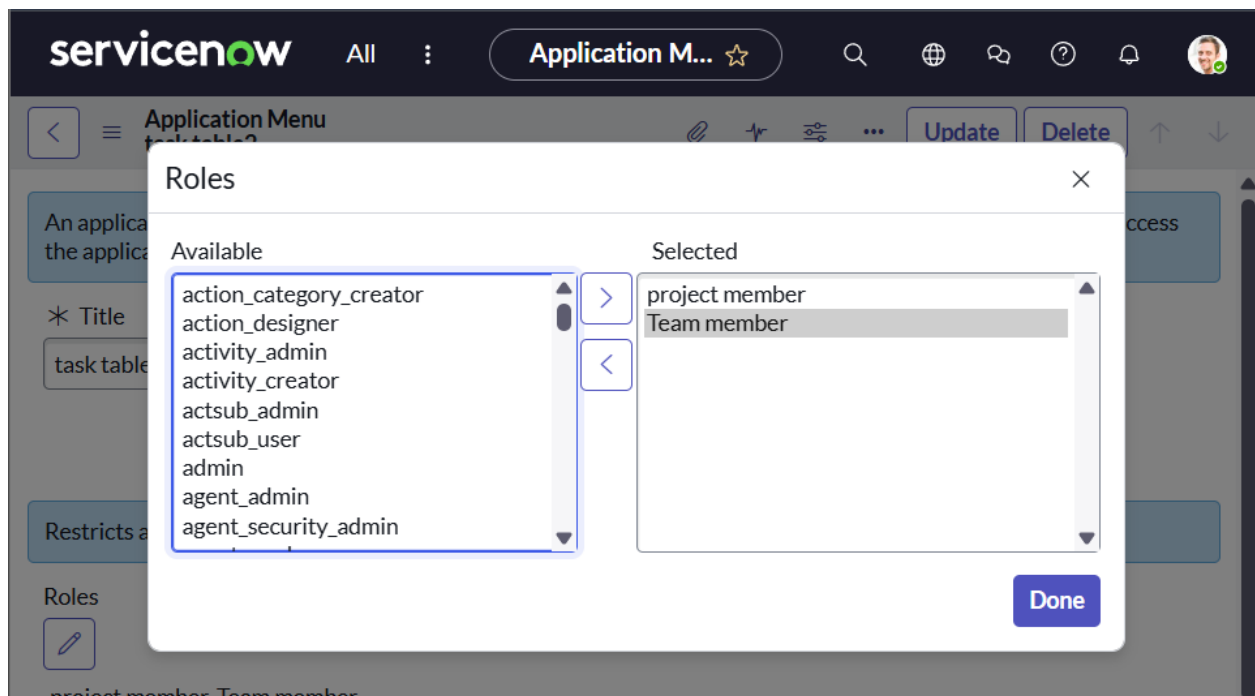


4. Assign **Team Member** role and appropriate table roles.
5. Save and update the form.
6. Impersonate Bob to verify that he has access to **Task Table 2**.

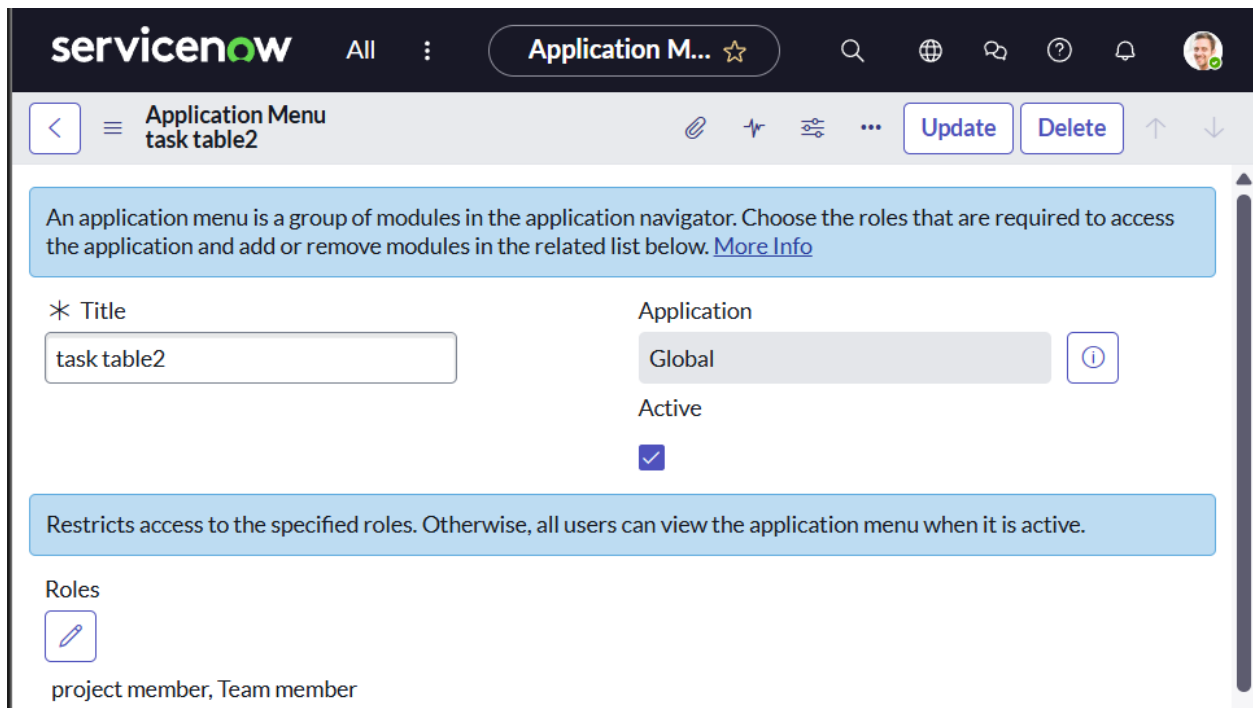
## Milestone 7: Application access

### 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.

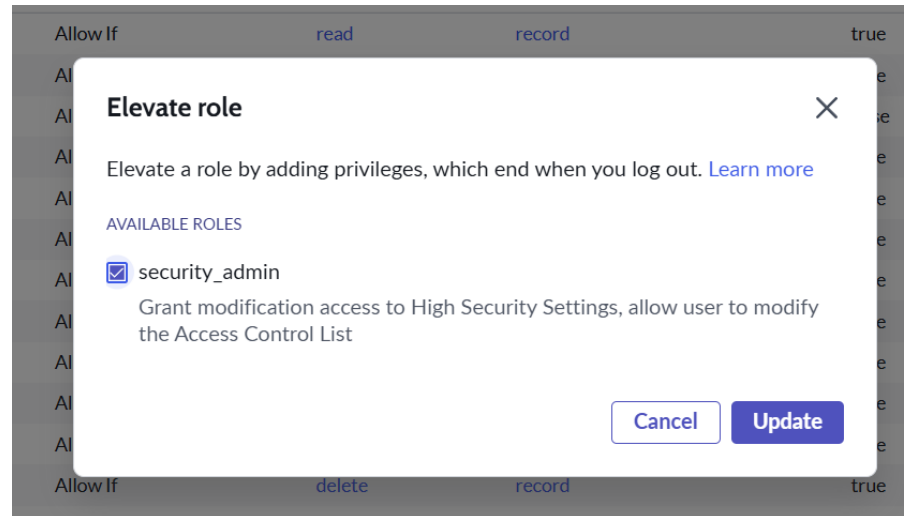
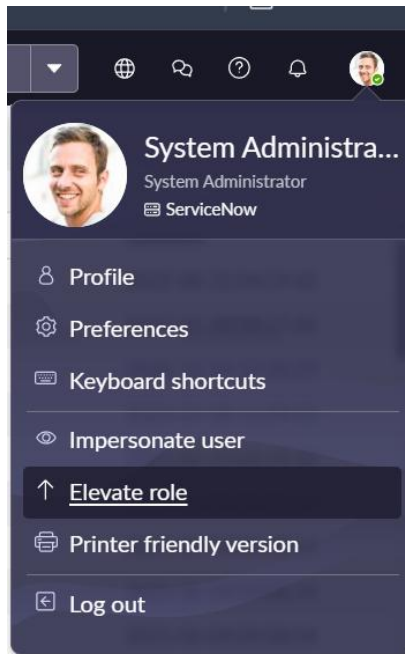


The screenshot shows the ServiceNow interface for configuring an application menu. The header includes the ServiceNow logo, navigation tabs (All, Application M...), and user profile. The main content area is titled 'Application Menu task table2' and includes an 'Update' button and a 'Delete' button. A blue information box explains that an application menu is a group of modules in the application navigator and provides a link to 'More Info'. Below this, there are fields for 'Title' (task table2), 'Application' (Global), and 'Active' (checked). A blue warning box states: 'Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.' Under the 'Roles' section, there is a pencil icon and the text '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

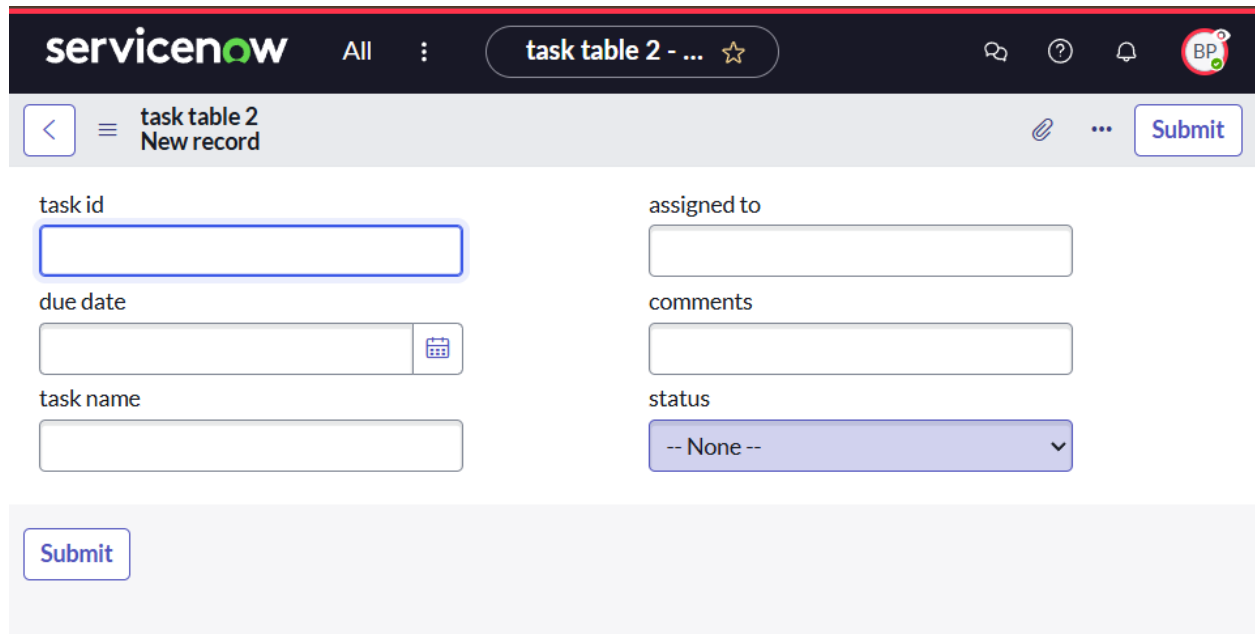


7. Similarly, create four ACLs for different fields.

8. **Verification:**

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

servicenow							
Access Controls							
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_2.u_assigned_to	Allow If	write	record	true	admin	2025-09-05 21:53:09	
u_task_table_2.u_due_date	Allow If	write	record	true	admin	2025-09-05 21:53:43	
u_task_table_2.u_status	Allow If	write	record	true	admin	2025-09-05 21:45:38	
u_task_table_2.u_task_id	Allow If	write	record	true	admin	2025-09-05 21:54:34	
u_task_table_2.u_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

Inactive

View:

Test

Activate

Save

Action

Ask For Approval

\* Record

1 - Update... task table 2 Re...

Table

task table 2 [u\_task\_table\_2]

Approval Field

status

Journal Field

Select a field

\* Rules

Approve

When:

All users approve

alice p

Due Date

None

Add another OR rule set

OR

AND


Delete

Cancel

Done

Status: Modified

Application: Global


All
Approvals

Approvals
Approver

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.