

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

Team Id: NM2025TMID14580

Team Members:

Team Leader : Mythili.B

Team Member 1 : Anitha.B

Team Member 2 : Vinisri.L

Team member3 : Bharath.K

Problem Statement:

In a project team with a Project Manager (Alice) and a Team Member (Bob), managing tasks effectively can be challenging without proper role definitions and workflow structure. The current approach lacks clear access controls and organized task assignments, leading to confusion, delays, and difficulty in tracking progress. This project focuses on optimizing user roles and groups, implementing access management, and automating workflows to improve efficiency, accountability, and clarity in task management.

Objective:

1. Optimize user roles and groups for clear responsibilities.
2. Implement access control based on need.
3. Automate workflows for task assignments and approvals.
4. Improve efficiency, accountability, and clarity in task management.

Skills:

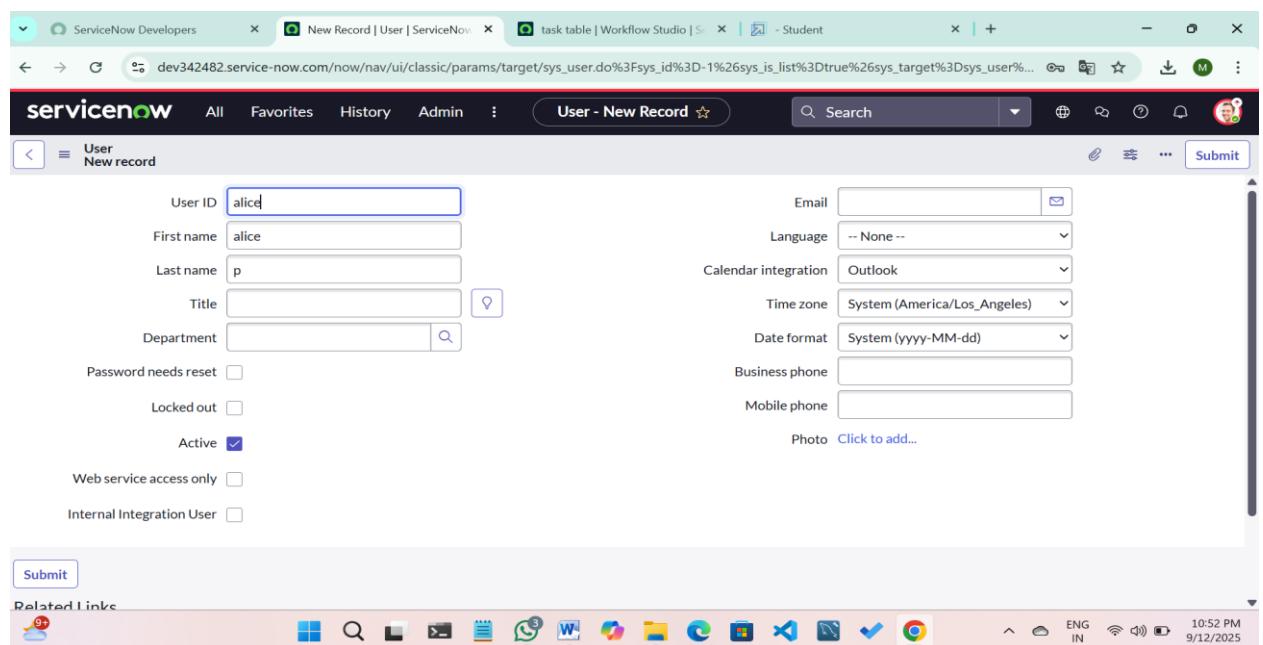
1. User and role management
2. Access control and security
3. Workflow automation
4. Analytical and problem-solving skills

TASK INITIATION

Milestone 1 : Users

Activity 1: Create Users

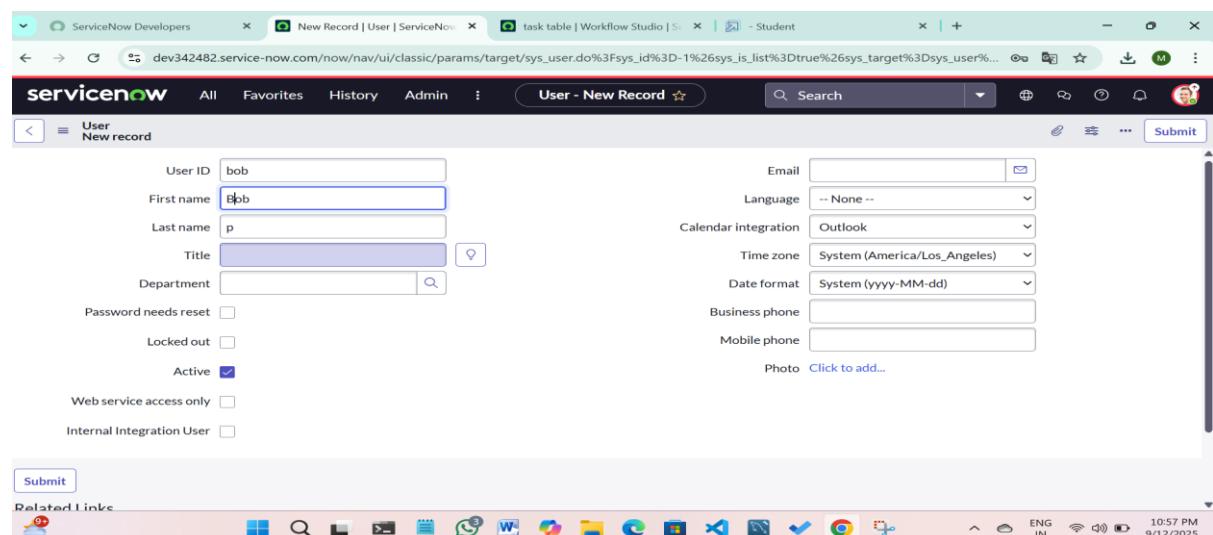
1. Open ServiceNow.
2. Navigate to All → Search for Users.
3. Select Users under System Security.
4. Click on New to create a user.
5. Enter the required details such as Name, Email, and Role.
6. Click Submit to save the new user.



The screenshot shows the 'User - New Record' form in ServiceNow. The 'User ID' field contains 'alice'. Other fields include 'First name' (alice), 'Last name' (p), 'Title' (empty), 'Department' (empty), 'Email' (empty), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los_Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone' (empty), 'Mobile phone' (empty), and 'Active' checked. Below the form is a toolbar with various icons and a status bar showing 'ENG IN' and the date '9/12/2025'.

Create one more user:

1. Create another user and with the following details as alice user.
2. Click on submit.

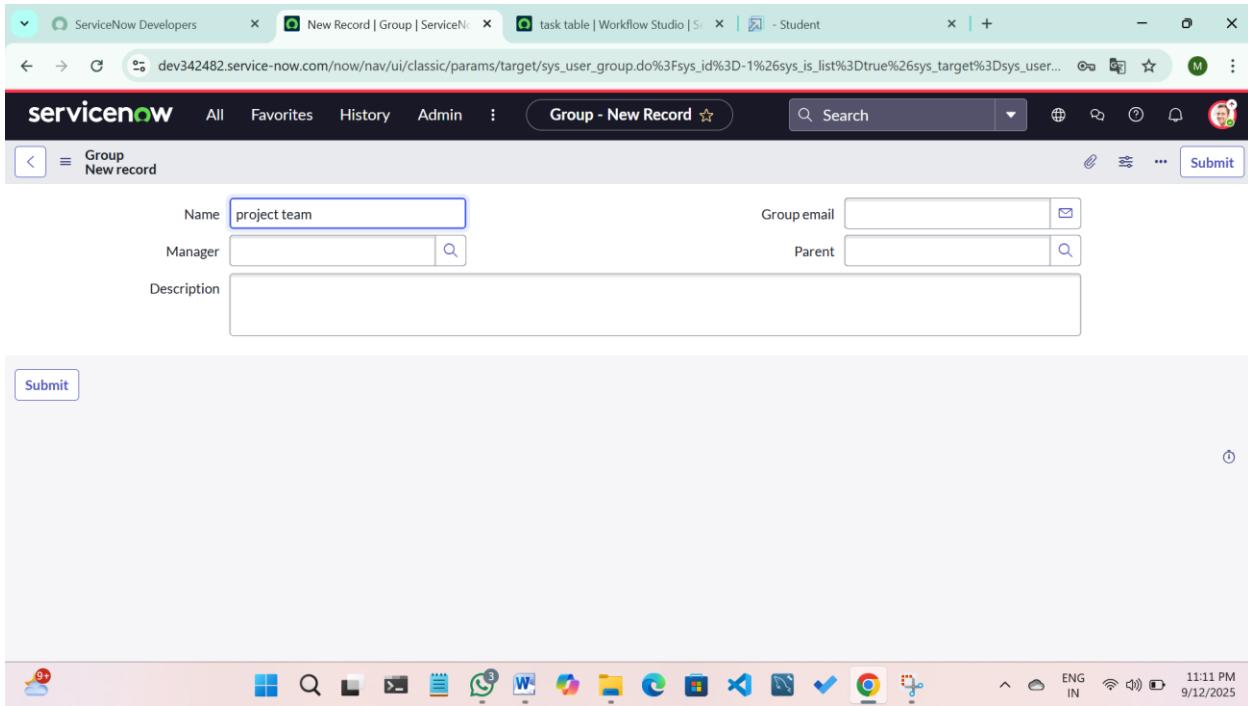


The screenshot shows the 'User - New Record' form in ServiceNow. The 'User ID' field contains 'bob'. Other fields include 'First name' (Bob), 'Last name' (p), 'Title' (empty), 'Department' (empty), 'Email' (empty), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (America/Los_Angeles)), 'Date format' (System (yyyy-MM-dd)), 'Business phone' (empty), 'Mobile phone' (empty), and 'Active' checked. Below the form is a toolbar with various icons and a status bar showing 'ENG IN' and the date '9/12/2025'.

Milestone 2 : Groups

Activity 2: Creating Groups

1. Open ServiceNow.
2. Navigate to All → Search for Groups.
3. Select Groups under System Security.
4. Click on New to create a group.
5. Enter the required details, such as Group Name, Description, and Assigned Roles.
6. Click Submit to save the new group.



The screenshot shows the ServiceNow interface for creating a new group. The top navigation bar includes tabs for 'All', 'Favorites', 'History', and 'Admin'. The current page is titled 'Group - New Record'. The form fields are as follows:

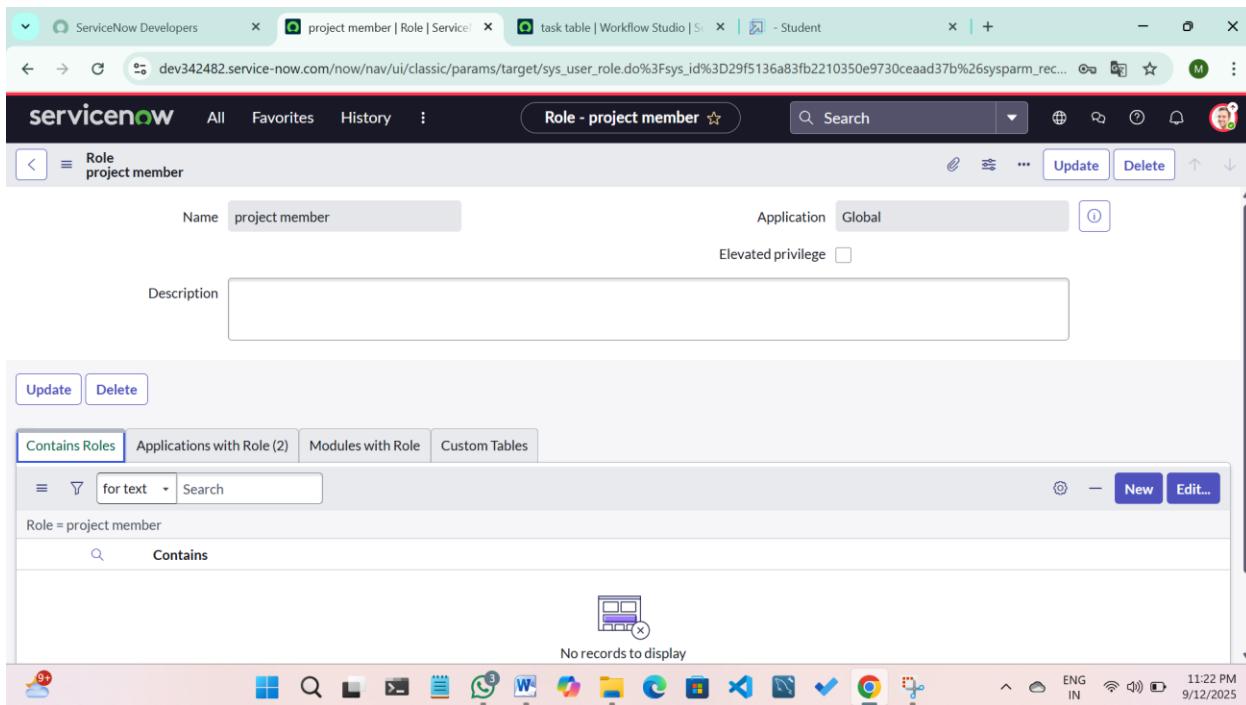
- Name: project team
- Manager: (Search icon)
- Group email: (Envelope icon)
- Parent: (Search icon)
- Description: (Empty text area)

A 'Submit' button is located at the bottom left of the form. The bottom of the screen shows the Windows taskbar with various pinned icons and system status indicators.

Milestone 3 : Roles

Activity 1: Create roles

1. Open ServiceNow.
2. Navigate to All → Search for Roles.
3. Select Roles under System Security.
4. Click on New to create a role.
5. Enter the required details, such as Role Name and Description.
6. Click Submit to save the new role.



The screenshot shows the ServiceNow interface for creating a new role. The title bar has tabs for 'ServiceNow Developers', 'project member | Role | Service', 'task table | Workflow Studio | S...', and '- Student'. The main window is titled 'Role - project member' with a star icon. The 'Name' field contains 'project member', 'Application' is set to 'Global', and there is an unchecked 'Elevated privilege' checkbox. The 'Description' field is empty. Below the form, there are 'Update' and 'Delete' buttons. A navigation bar at the bottom includes 'Contains Roles', 'Applications with Role (2)', 'Modules with Role', and 'Custom Tables'. A search bar shows 'Role = project member' and a 'Search' button. A 'New' button is visible in the top right of the search area. The status bar at the bottom shows system icons, language 'ENG IN', date '9/12/2025', and time '11:22 PM'.

Create one more role:

1. Create another role as same as the previous with the following details
2. Click on submit.

Milestone 4 : Table

Activity 1: Create Table

1. Open ServiceNow.
2. Navigate to All → Search for Tables.
3. Select Tables under System Definition.
4. Click on New to create a table.
5. Enter the following details:
 - o Label: Project Table
 - o Check the boxes Create Module and Create Mobile Module
6. Under New Menu Name, enter: Project Table
7. Define the table columns according to your project requirements.
8. Click Submit to create the table.

ServiceNow Developers | project table | Table | ServiceNow | task table | Workflow Studio | Student - Student

Table - project table

Label: project table

Name: u_project_table

Application: Global

Remote Table:

Columns | Controls | Application Access

Dictionary Entries

| | Column label | Type | Reference | Max length | Default value | Display |
|---------|---------------|---------|-----------|------------|---------------|---------|
| X | status | Choice | (empty) | 40 | false | |
| X | description | String | (empty) | 40 | false | |
| X | end date | Date | (empty) | 40 | false | |
| Sys ID | Sys ID (GUID) | (empty) | 32 | false | | |
| Created | Date/Time | (empty) | 40 | false | | |

1 to 13 of 13

9:00 AM 11:30 PM 9/12/2025

ChatGPT | ServiceNow Developers | Document shared with | Copy of template | project on users group | New Record | Table | +

Table - New Record

Name: u_project_table

Create module:

Extends table:

Create mobile module:

Add module to menu:

New menu name: project table

Columns | Controls | Application Access

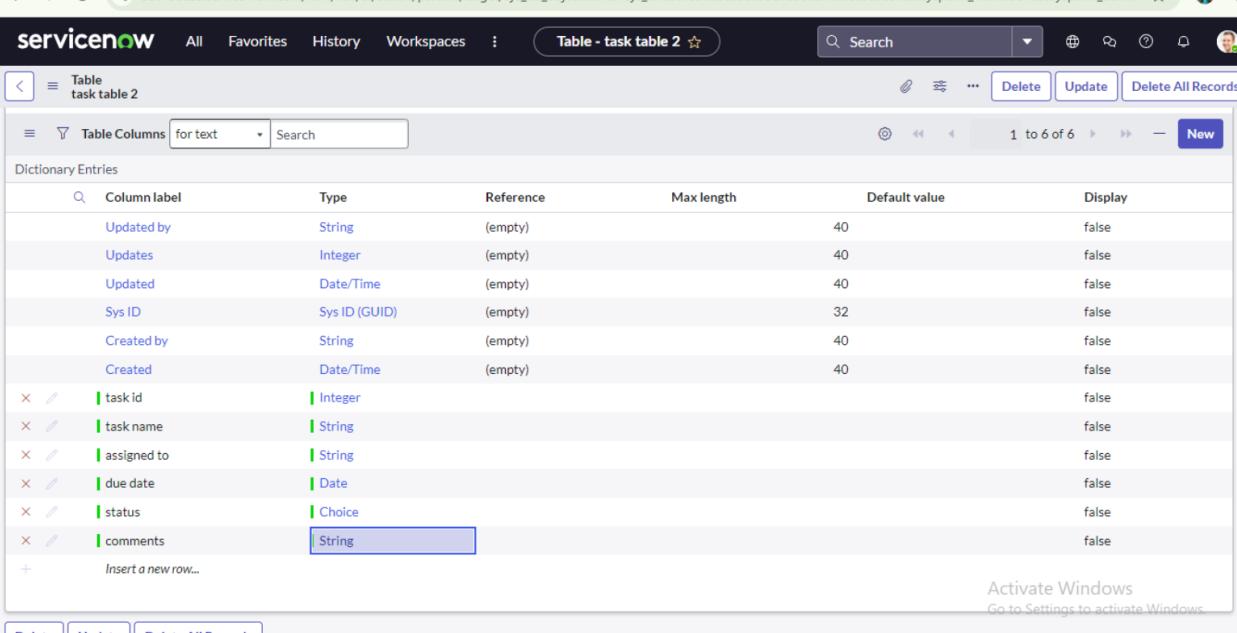
Dictionary Entries

| | Column label | Type | Reference | Max length | Default value | Display |
|---|-----------------|---------|-----------|------------|---------------|---------|
| X | project id | Integer | | | false | |
| X | project name | String | | | false | |
| X | project manager | String | | | false | |
| X | start date | Date | | | false | |
| X | end date | Date | | | false | |
| X | status | Choice | | | false | |
| X | description | String | | | false | |

Activate Windows
Go to Settings to activate Windows.

Create one more table:

1. Open ServiceNow.
2. Create a new table with the following details:
3. Label: Task Table 2
4. (Fill in the required fields as per your project needs, e.g., columns for Task Name, Assigned To, Status, etc.)
5. Click Submit to save the table.



The screenshot shows the ServiceNow Table - task table 2 configuration page. The table has the following columns and their properties:

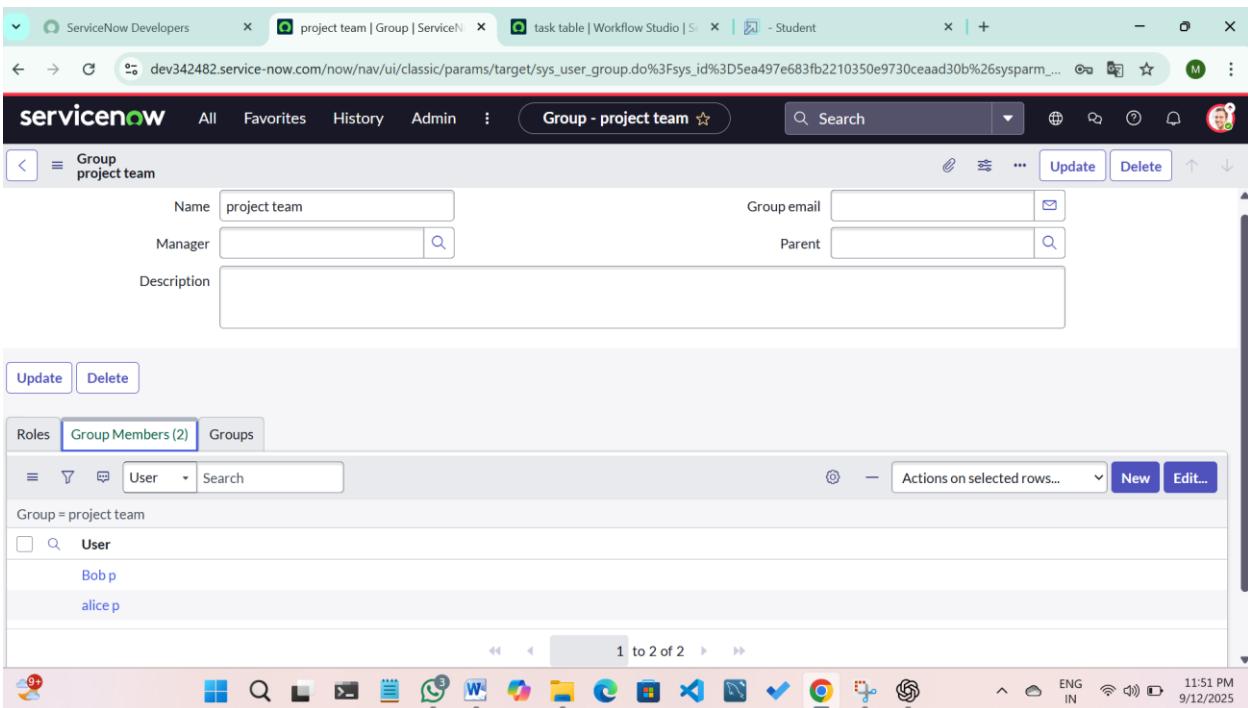
| Column label | Type | Reference | Max length | Default value | Display |
|--------------|---------------|-----------|------------|---------------|---------|
| Updated by | String | (empty) | 40 | false | false |
| Updates | Integer | (empty) | 40 | false | false |
| Updated | Date/Time | (empty) |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

At the bottom of the table, there is a button labeled "Insert a new row..." and a note: "Activate Windows Go to Settings to activate Windows."

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

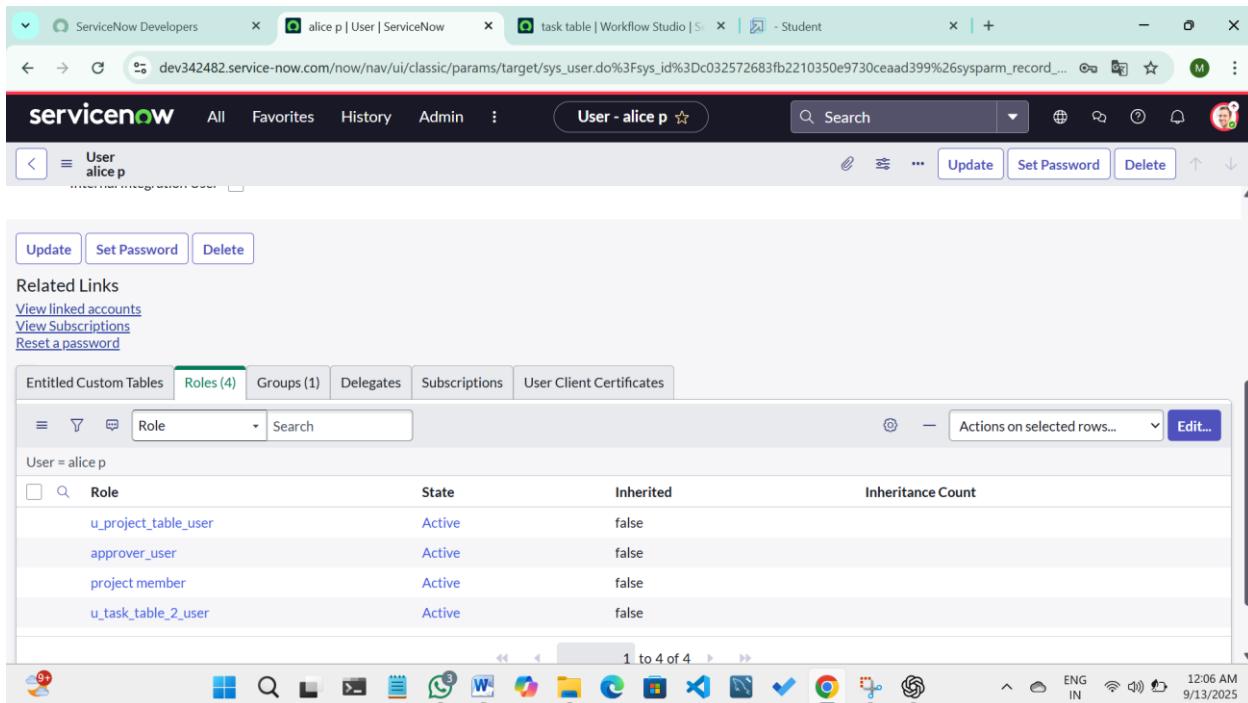


The screenshot shows the ServiceNow interface for managing groups. The top navigation bar includes tabs for 'All', 'Favorites', 'History', and 'Admin'. The current page title is 'Group - project team'. The main form fields are: Name (project team), Manager (empty), Group email (empty), Parent (empty), and Description (empty). Below the form, there are 'Update' and 'Delete' buttons. A tabbed section at the bottom shows 'Roles' (selected), 'Group Members (2)', and 'Groups'. The 'Group Members' tab displays a list of users assigned to the group: Bob p and alice p. The status of both users is 'User'. The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time as 11:51 PM 9/12/2025.

Milestone 6 : Assign roles to users

Activity 1: Assign roles to alice user

1. Open ServiceNow and navigate to All → Search for Users.
2. Select Users under System Definition.
3. Choose the Project Manager (Alice) user.
4. In the Roles section of the user form, click on Edit.
5. Assign the role Project Member and save.
6. Again, click Edit and add the roles u_project_table and u_task_table.
7. Click Save and then Update the form to apply changes.

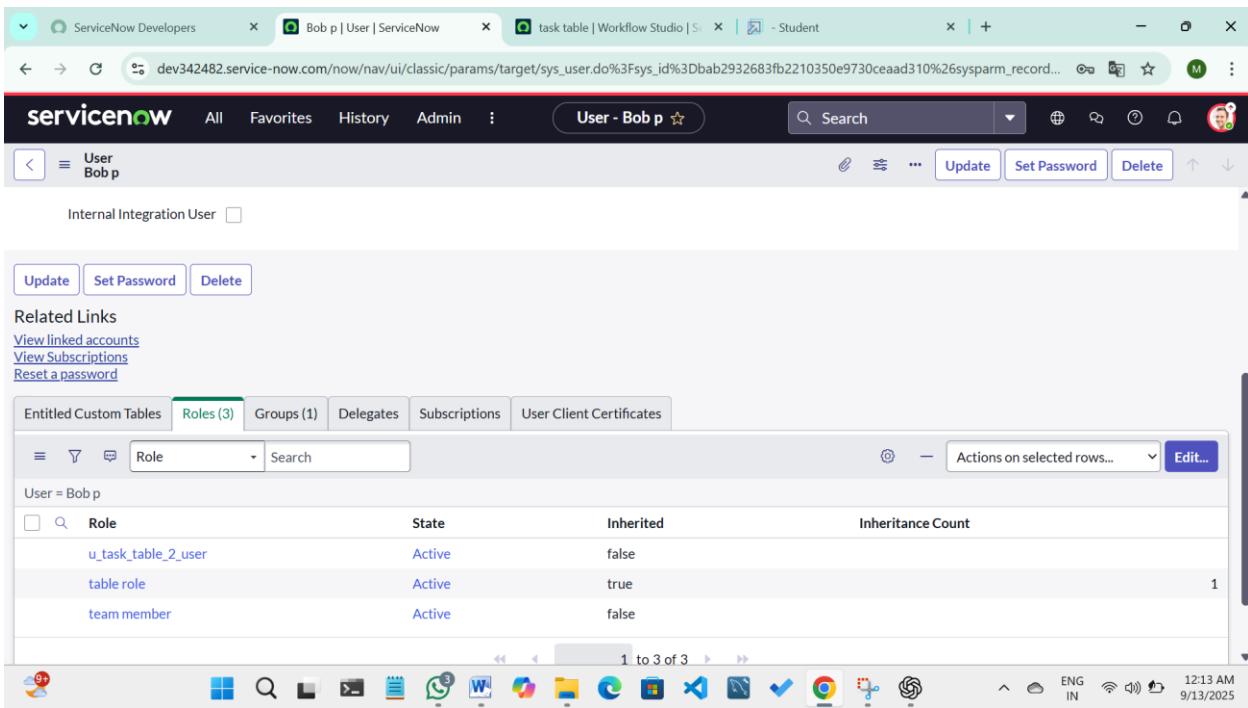


The screenshot shows the ServiceNow User edit screen for a user named 'User - alice p'. The top navigation bar includes tabs for Developers, User (active), task table, and Student. The main title bar says 'User - alice p'. Below the title, there are buttons for Update, Set Password, and Delete. A 'Related Links' section lists View linked accounts, View Subscriptions, and Reset a password. The 'Roles (4)' tab is selected in the Entitled Custom Tables section. The table displays four roles: u_project_table_user, approver_user, project member, and u_task_table_2_user, all listed as Active with inheritance set to false. The bottom status bar shows various icons and the date/time 12:06 AM 9/13/2025.

| Role | State | Inherited | Inheritance Count |
|----------------------|--------|-----------|-------------------|
| u_project_table_user | Active | false | |
| approver_user | Active | false | |
| project member | Active | false | |
| u_task_table_2_user | Active | false | |

Activity 2: Assign roles to bob user

1. Open ServiceNow and navigate to All → Search for Users.
2. Select Users under System Definition.
3. Choose the user Bob P.
4. In the Roles section, click on Edit.
5. Assign the role Team Member and add the required Table Role.
6. Click Save to apply changes.
7. Click on the Profile Icon → Impersonate User → Bob P.
8. Verify that Task Table 2 is visible and accessible for Bob.



The screenshot shows the ServiceNow User interface for a user named Bob p. The top navigation bar includes links for ServiceNow Developers, Bob p | User | ServiceNow, task table | Workflow Studio, and Student. The main title is "User - Bob p". Below the title, it says "Internal Integration User". There are buttons for Update, Set Password, and Delete. A "Related Links" section includes "View linked accounts", "View Subscriptions", and "Reset a password". A "Roles" tab is selected, showing three roles: u_task_table_2_user (Active, Inherited false), table role (Active, Inherited true), and team member (Active, Inherited false). The bottom status bar shows various icons and the date/time: 12:13 AM 9/13/2025.

| Role | State | Inherited | Inheritance Count |
|---------------------|--------|-----------|-------------------|
| u_task_table_2_user | Active | false | |
| table role | Active | true | 1 |
| team member | Active | false | |

Milestone 7 : Application access

Activity 1: Assign table access to application

- When a new table is created in ServiceNow, an Application and Module are automatically generated for that table.
- Open the Application Navigator and search for the Project Table application.
- Right-click the Project Table module and select Edit Module.
- In the Roles field, assign the Project Member role, then save the changes.
- Next, search for the Task Table2 application in the Application Navigator and select Edit Application.
- In the Roles field, assign both the Project Member and Team Member roles, then save the changes.

ServiceNow Developers project table | Application Menu task table | Workflow Studio | Student

servicenow All Favorites History : Application Menu - project table Search

Application Menu - project table 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 Application Global [\(i\)](#)

Active

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

Roles [\(i\)](#)
project member

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

Category [\(i\)](#)

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

Hint
Description

12:20 AM 9/13/2025

ServiceNow Developers project table | Application Menu task table | Workflow Studio | Student

servicenow All Favorites History : Application Menu - project table Search

Application Menu - project table Update Delete

Hint
Description

Update Delete

| Modules | | Order | Search | Actions on selected rows... | | New | | | |
|----------------------------------|----------------|---------------------------------|--------|-----------------------------|---------|-----------------|-------------|----------------------|---------------------|
| Application menu = project table | | | | | | | | | |
| <input type="checkbox"/> | Title | Table | Active | Filter | Order ▲ | Link type | Device type | Roles | Updated |
| <input type="checkbox"/> | project tables | project table [u_project_table] | true | | | List of Records | | u_project_table_user | 2025-09-08 10:00:41 |
| 1 to 1 of 1 | | | | | | | | | |

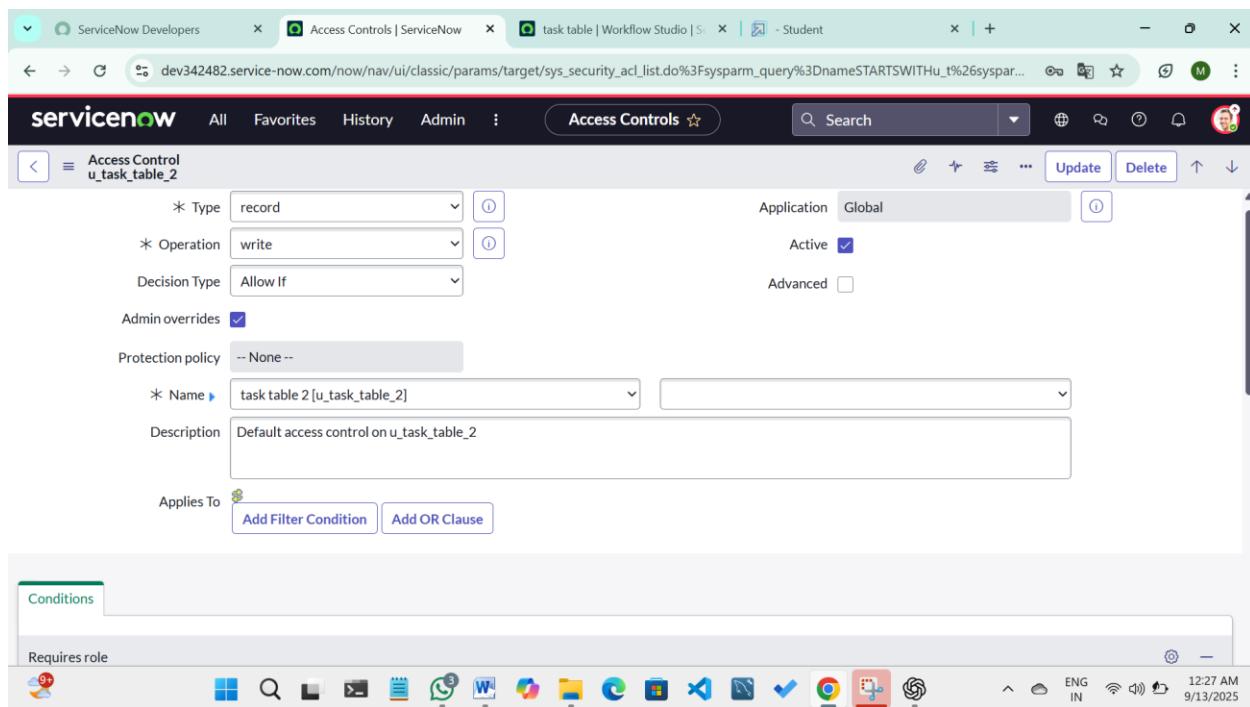
12:21 AM 9/13/2025

Milestone 8 :Access control list

Activity 1: Create ACL

1. Open ServiceNow.
2. In the Application Navigator, click on All → search for ACL.
3. Select Access Control (ACL) under System Security.
4. Click on Elevate Role to gain the necessary permissions.
5. Click New to create a new ACL.
6. Fill in the required details to define the ACL.
7. Scroll down to the Requires Role section.
8. Double-click Insert a new row.
9. Add the Task Table and assign the Team Member role.
10. Click Submit to save.

11. Repeat the process to create four additional ACLs for the required fields.

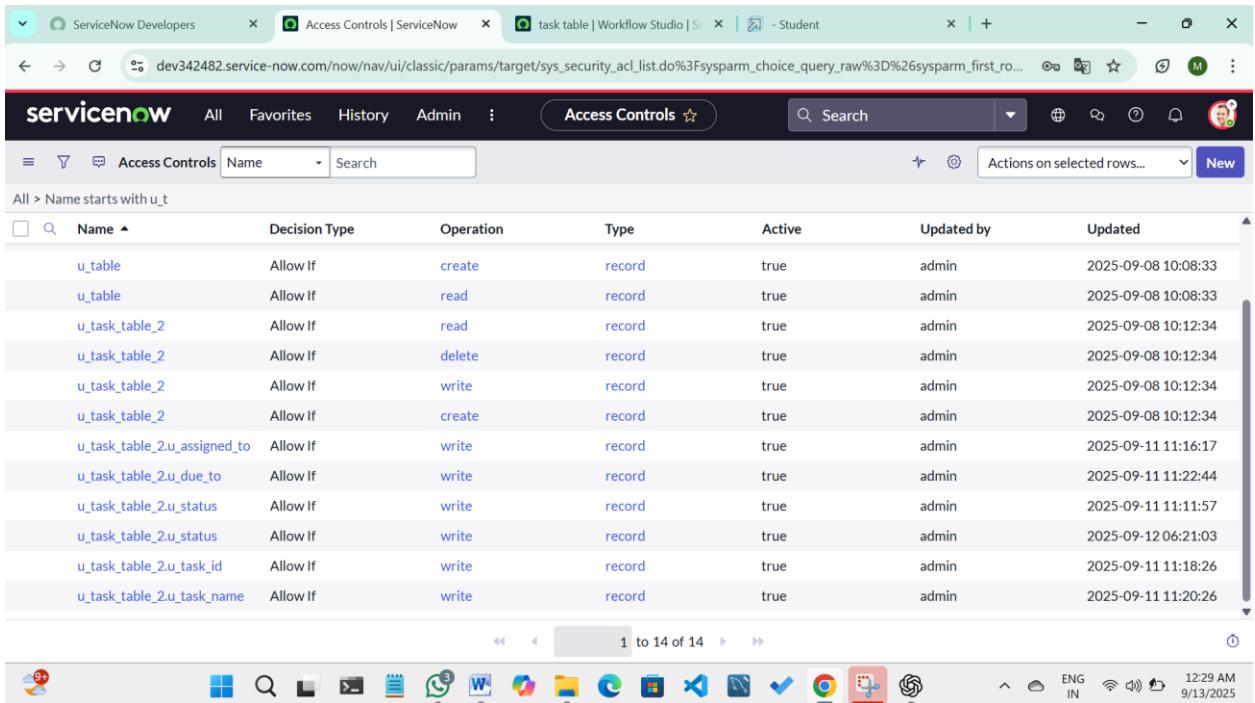


The screenshot shows the ServiceNow Access Controls page. The URL in the address bar is `dev342482.service-now.com/now/nav/ui/classic/params/target/sys_security_acl_list.do%3Fsysparm_query%3DnameSTARTSWITHu_t%26syspar...`. The page title is "Access Controls".

The main form is for creating an Access Control (u_task_table_2). The fields filled in are:

- * Type: record
- * Operation: write
- Decision Type: Allow If
- Application: Global
- Active: checked
- Admin overrides: checked
- Protection policy: -- None --
- * Name: task table 2 [u_task_table_2]
- Description: Default access control on u_task_table_2
- Applies To: (button to Add Filter Condition or Add OR Clause)

At the bottom, there is a "Conditions" section and a "Requires role" section. The system status bar at the bottom right shows: ENG IN, 12:27 AM, 9/13/2025.



The screenshot shows a ServiceNow interface with the title 'Access Controls' in the top navigation bar. A search bar and a 'New' button are also visible. The main area displays a table of access control records. The columns are: Name, Decision Type, Operation, Type, Active, Updated by, and Updated. The table contains 14 rows, all starting with 'u_table' or 'u_task_table_2'. The 'Active' column shows mostly 'true' values, and the 'Updated' column shows dates ranging from 2025-09-08 to 2025-09-11.

| Name | Decision Type | Operation | Type | Active | Updated by | Updated |
|------------------------------|---------------|-----------|--------|--------|------------|---------------------|
| u_table | Allow If | create | record | true | admin | 2025-09-08 10:08:33 |
| u_table | Allow If | read | record | true | admin | 2025-09-08 10:08:33 |
| u_task_table_2 | Allow If | read | record | true | admin | 2025-09-08 10:12:34 |
| u_task_table_2 | Allow If | delete | record | true | admin | 2025-09-08 10:12:34 |
| u_task_table_2 | Allow If | write | record | true | admin | 2025-09-08 10:12:34 |
| u_task_table_2 | Allow If | create | record | true | admin | 2025-09-08 10:12:34 |
| u_task_table_2.u_assigned_to | Allow If | write | record | true | admin | 2025-09-11 11:16:17 |
| u_task_table_2.u_due_to | Allow If | write | record | true | admin | 2025-09-11 11:22:44 |
| u_task_table_2.u_status | Allow If | write | record | true | admin | 2025-09-11 11:11:57 |
| u_task_table_2.u_status | Allow If | write | record | true | admin | 2025-09-12 06:21:03 |
| u_task_table_2.u_task_id | Allow If | write | record | true | admin | 2025-09-11 11:18:26 |
| u_task_table_2.u_task_name | Allow If | write | record | true | admin | 2025-09-11 11:20:26 |

12. Click on the Profile icon in the top-right corner.
13. Select Impersonate User.
14. Choose the Bob user.
15. In the Application Navigator, go to All and open Task Table 2.
16. Verify that the Comment and Status fields are editable, confirming the applied ACL permissions.

Milestone 9: Flow

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

1. In the Application Navigator, click on All → search for Flow Designer.
2. Select Flow Designer under Process Automation.
3. Once Flow Designer opens, click on New and select Flow.
4. In the Flow Properties, set the Flow Name as *Task Table*.
5. Ensure the Application is set to Global.
6. Click Build Flow to proceed.

ServiceNow Developers | Access Controls | ServiceNow | Homepage - Flows | Workflow - Student

Flow Designer

| Operation | Type | Active | Updated by | Updated |
|------------------------------|----------|--------|------------|---------------------|
| create | record | true | admin | 2025-09-08 10:08:33 |
| read | record | true | admin | 2025-09-08 10:08:33 |
| read | record | true | admin | 2025-09-08 10:12:34 |
| delete | record | true | admin | 2025-09-08 10:12:34 |
| u_task_table_2 | Allow If | write | admin | 2025-09-08 10:12:34 |
| u_task_table_2 | Allow If | create | admin | 2025-09-08 10:12:34 |
| u_task_table_2.u_assigned_to | Allow If | write | admin | 2025-09-11 11:16:17 |
| u_task_table_2.u_due_to | Allow If | write | admin | 2025-09-11 11:22:44 |
| u_task_table_2.u_status | Allow If | write | admin | 2025-09-11 11:11:57 |
| u_task_table_2.u_status | Allow If | write | admin | 2025-09-12 06:21:03 |
| u_task_table_2.u_task_id | Allow If | write | admin | 2025-09-11 11:18:26 |
| u_task_table_2.u_task_name | Allow If | write | admin | 2025-09-11 11:20:26 |

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ENG IN 12:40 AM 9/13/2025

ServiceNow Developers | Access Controls | ServiceNow | Homepage - Flows | Workflow - Student

Workflow Studio

New ▾

Playbooks Flows Subflows Triggers Actions Data streams ...

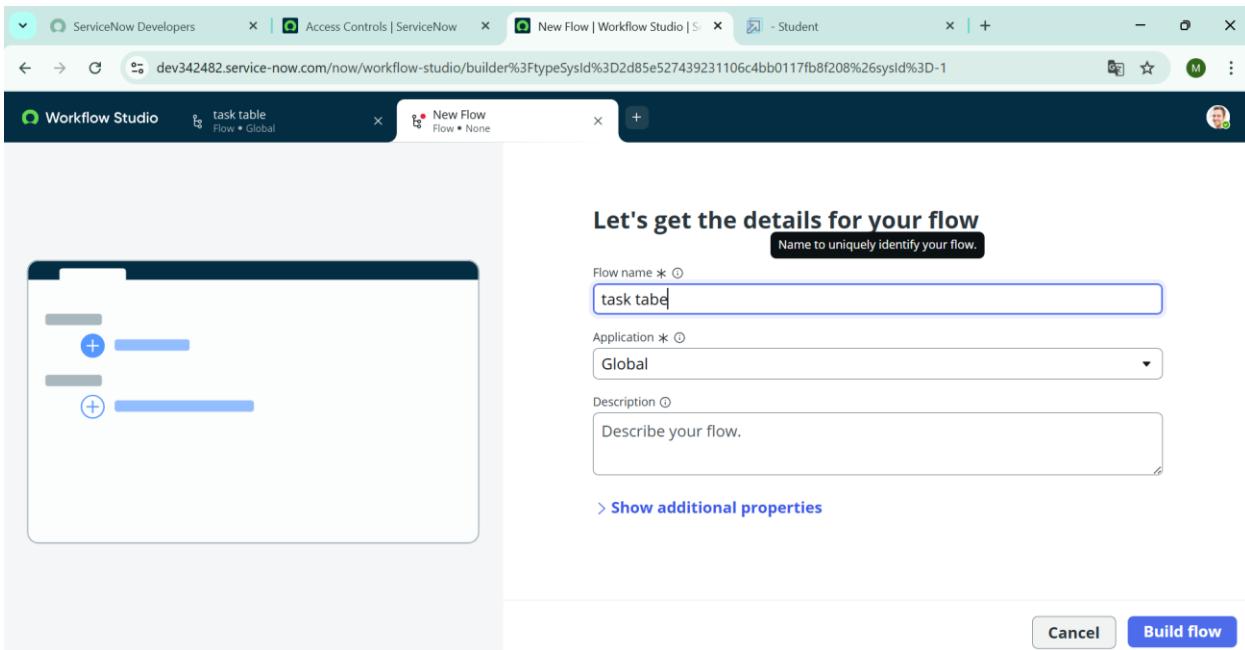
Flows (82) Last refreshed 2m ago.

| Name | Application | Status |
|--|-------------------------|-----------|
| Application Intake Request Flow (Deprecated) | Application Intake | Published |
| Application Intake Request V2 | Application Intake | Published |
| Asset Attestation Catalog Request Flow | Asset Management Common | Published |
| Asset Reclamation Flow | Asset Management Common | Published |
| Benchmark Recommendation Evaluator | Benchmarks Spoke | Published |
| Business process approval flow | Global | Published |

Pick up where you left off

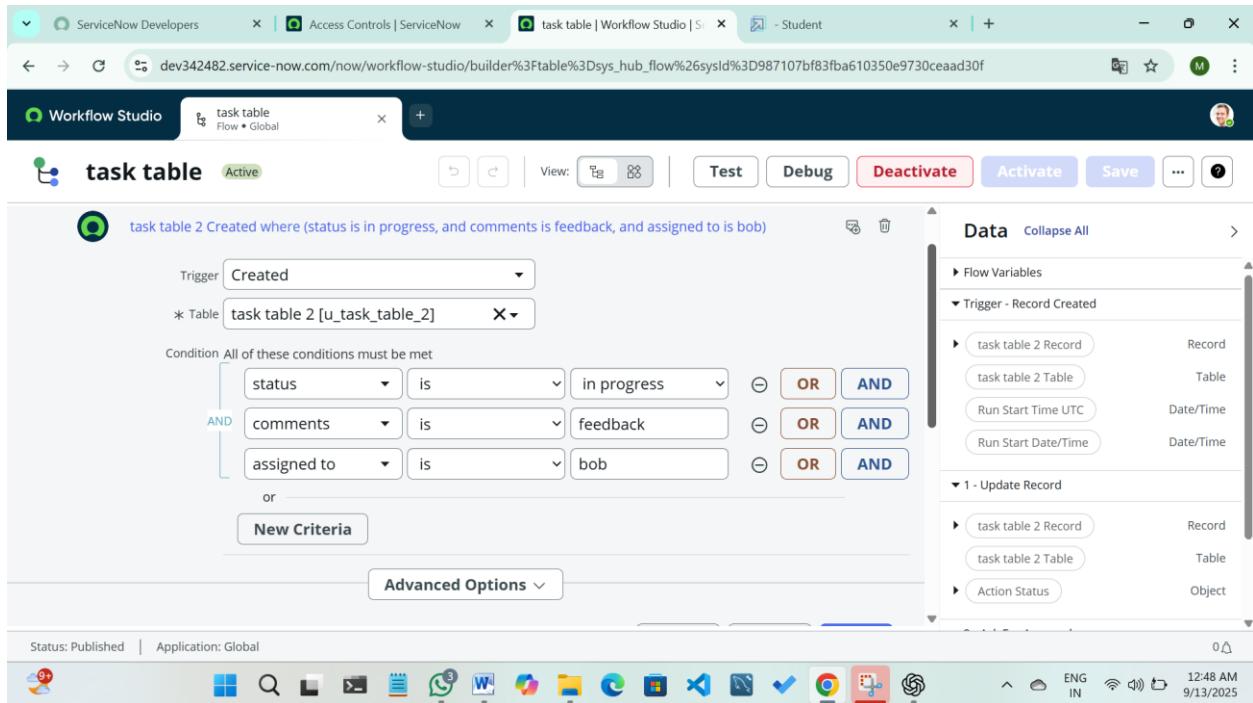
- task table
- Upgrade management ...
- Steps
- System Administrator modified task table 3 h. ago
- Service-now: Developer Program Hop [maint,admin,itil] modified

ENG IN 12:42 AM 9/13/2025



Activity 2: Configure Trigger for the Flow

1. Click on Add a Trigger.
2. In the trigger options, search for Create Record and select it.
3. Set the Table Name to *Task Table*.
4. Define the conditions as follows:
 - o Field: Status → Operator: is → Value: In Progress
 - o Field: Comments → Operator: is → Value: Feedback
 - o Field: Assigned To → Operator: is → Value: Bob
5. Click Done to save the trigger configuration.



The screenshot shows the ServiceNow Workflow Studio interface for configuring a flow named "task table".

Trigger: Created

Table: task table 2 [u_task_table_2]

Condition: All of these conditions must be met

- status is in progress
- comments is feedback
- assigned to is bob

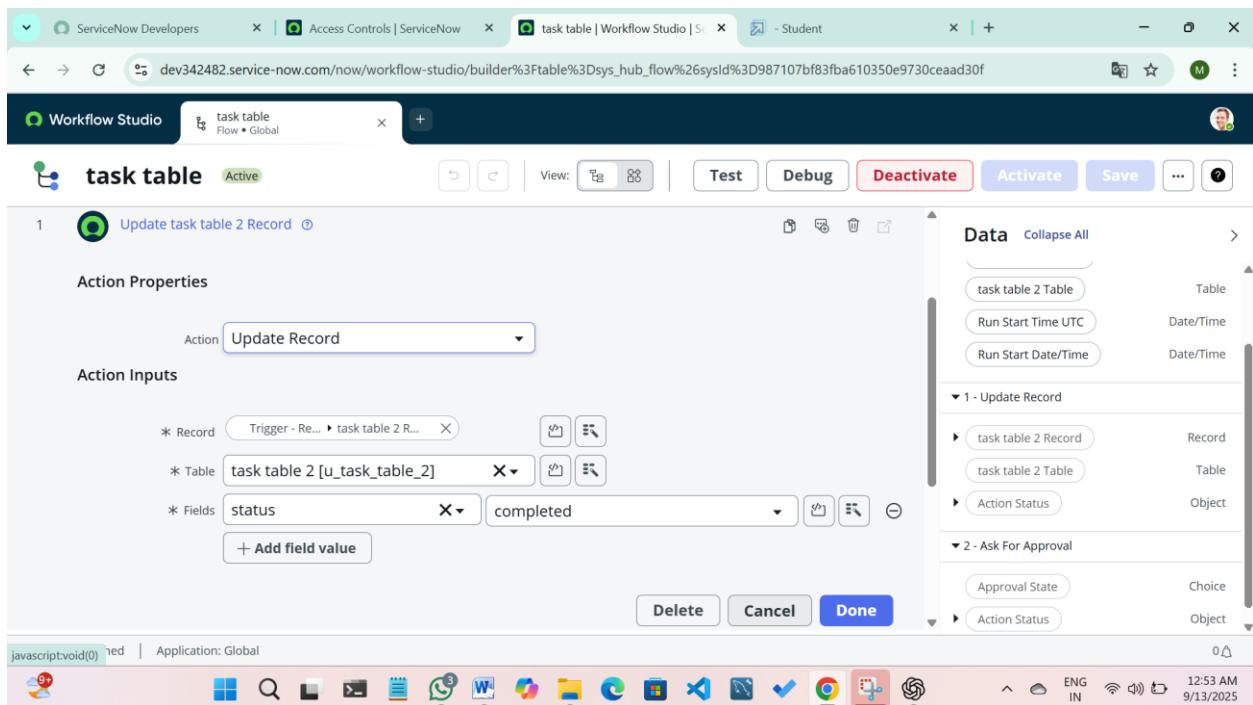
Data Pill Navigation Panel:

- Flow Variables
- Trigger - Record Created
 - task table 2 Record
 - task table 2 Table
 - Run Start Time UTC
 - Run Start Date/Time
- 1 - Update Record
 - task table 2 Record
 - task table 2 Table
 - Action Status

Status: Published | Application: Global

Activity 3: Configure Flow Action

1. Click on **Add an Action**.
2. From the available options, search for **Update Record** and select it.
3. In the **Record** field, drag the required fields from the **Data Pill** navigation panel on the right side.
4. The **Table** will be automatically assigned based on the trigger configuration.
5. Add the field **Status** and set its value to **Completed**.
6. Click **Done** to save the action.



The screenshot shows the ServiceNow Workflow Studio interface for configuring an action step.

Action Properties: Action: Update Record

Action Inputs:

- * Record: Trigger - Re... ▶ task table 2 R...
- * Table: task table 2 [u_task_table_2]
- * Fields: status completed

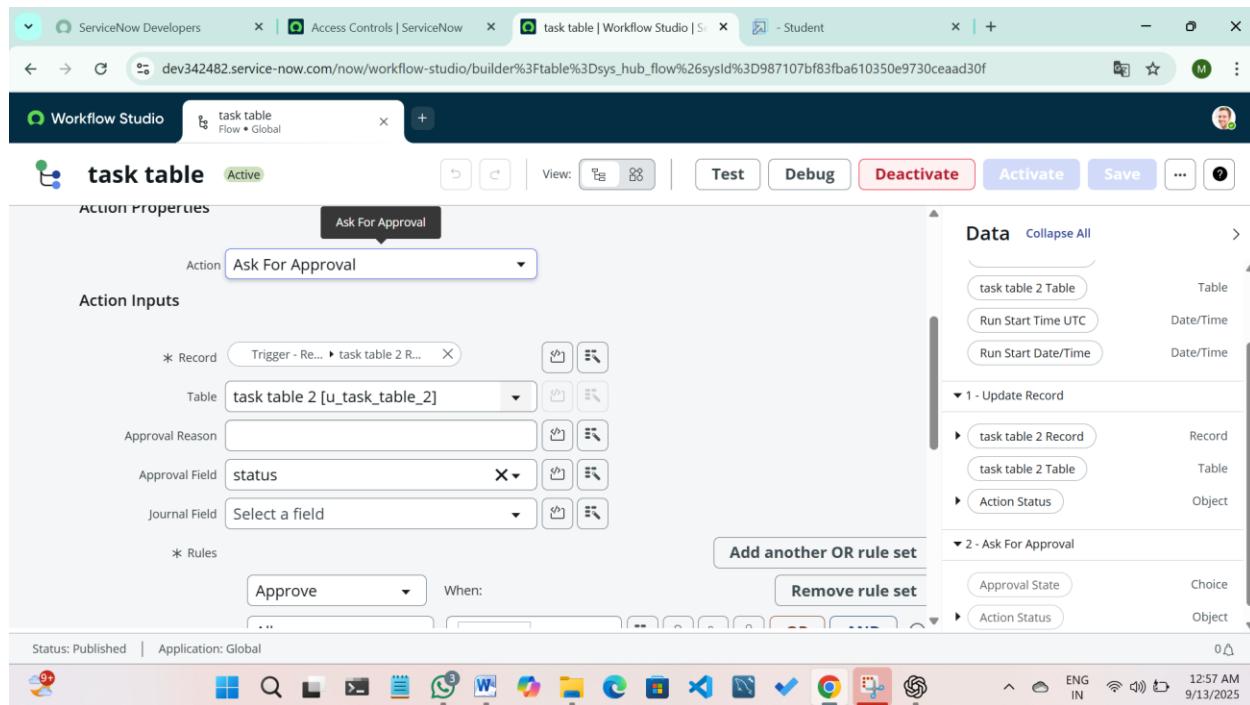
Data Pill Navigation Panel:

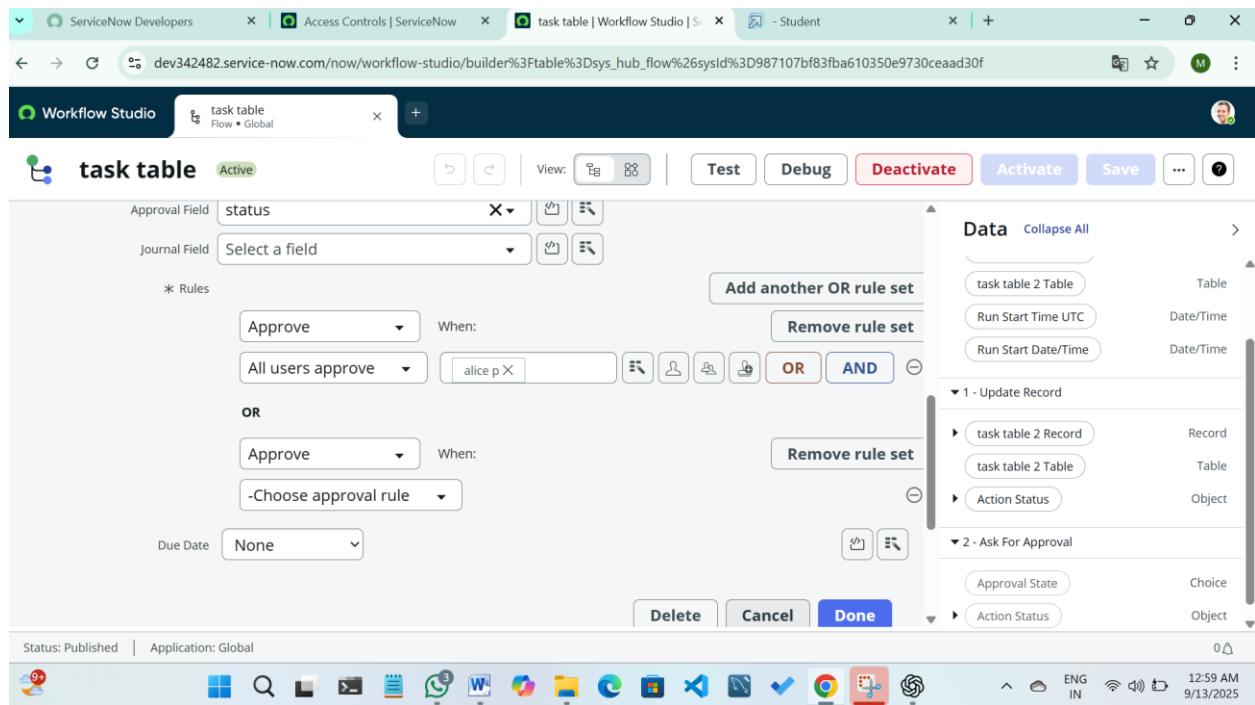
- task table 2 Table
- Run Start Time UTC
- Run Start Date/Time
- 1 - Update Record
 - task table 2 Record
 - task table 2 Table
 - Action Status
- 2 - Ask For Approval
 - Approval State
 - Action Status

Status: javascript:void(0) | Application: Global

Activity 4: Add Approval Action

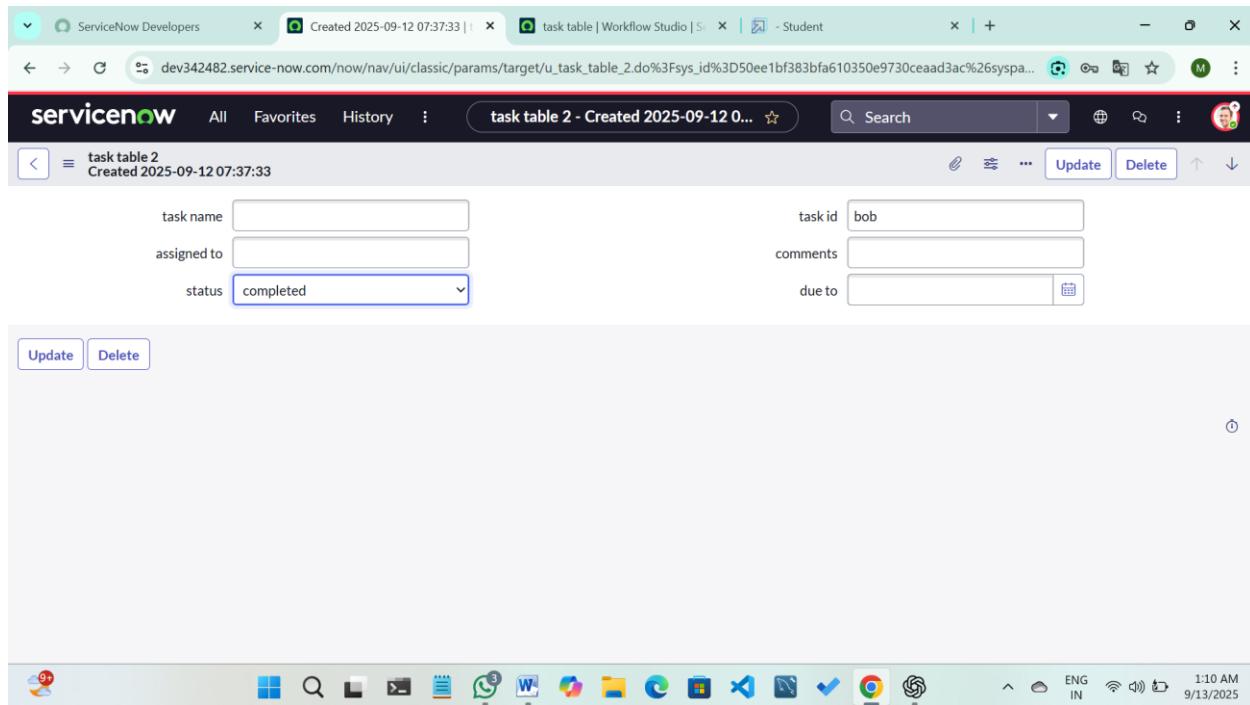
- 1.Under Actions, click on **Add an Action**.
- 2.From the action options, search for **Ask for Approval** and select it.
- 3.In the **Record** field, drag the required fields from the **Data Pill** navigation panel on the right side.
- 4.The **Table** will be automatically assigned based on the trigger configuration.
- 5.Set the **Approval Field** to **Status**.
- 6.Assign the **Approver** as **Alice P.**
- 7.Click **Done** to save the approval action.





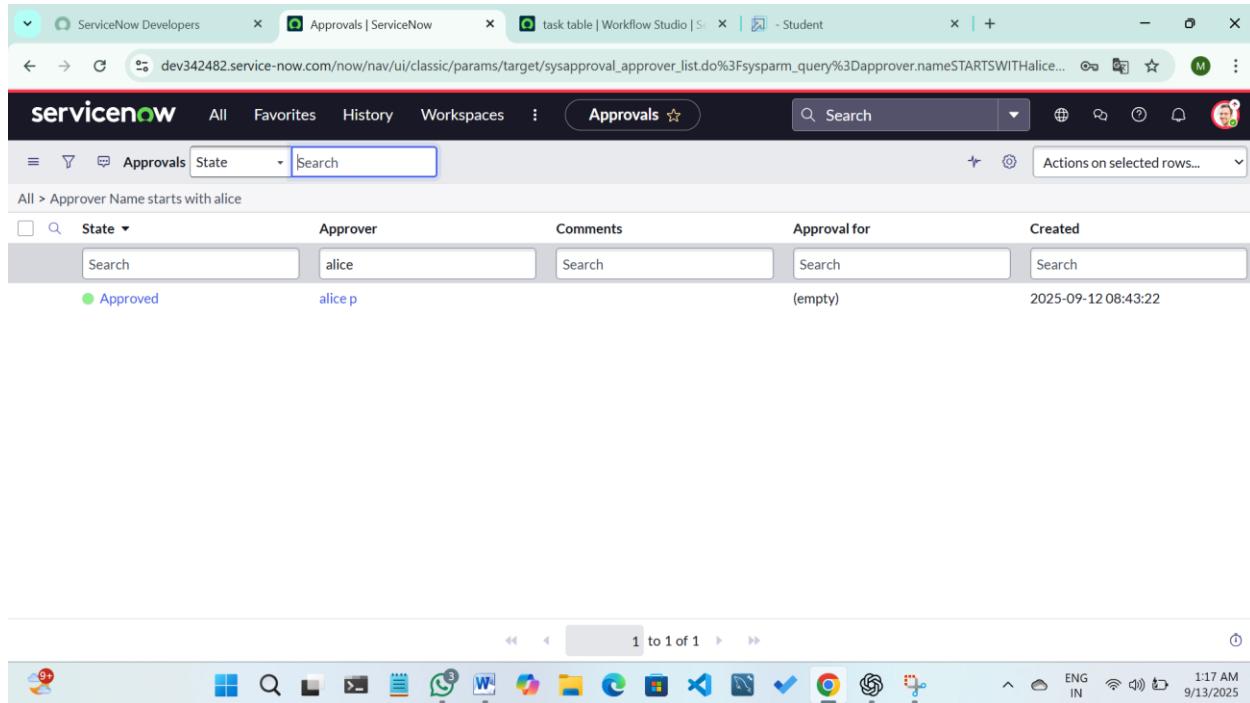
The screenshot shows the ServiceNow Workflow Studio interface for a "task table" flow. The main area displays configuration for an approval field ("status") and a journal field ("Select a field"). Under the "Rules" section, there are two rule sets: one for "Approve" (when "All users approve" and "alice p X") and another for "OR" (when "Approve" and "-Choose approval rule"). A "Data" panel on the right lists various objects and their properties, such as "task table 2 Table", "Run Start Time UTC", and "Run Start Date/Time". The bottom status bar indicates the flow is "Published" and "Global".

1. In the Application Navigator, search for Task Table.
2. Verify that the Status field is updated to Completed, confirming the flow execution.



The screenshot shows the ServiceNow application navigator with a "task table 2" record selected. The record details are displayed: "task name" (empty), "assigned to" (empty), "status" (set to "completed"), "task id" (set to "bob"), "comments" (empty), and "due to" (empty). The bottom status bar shows the record was created on 2025-09-12 at 07:37:33.

- 3.In the Application Navigator, search for My Approvals.
- 4.Click on My Approvals under the Service Desk section.
- 5.As Alice P, review the approval request. Right-click on the request and select Approve.



The screenshot shows a ServiceNow web interface with the following details:

- Page Title:** Approvals | ServiceNow
- Search Bar:** Search (with placeholder "Search")
- Filter Bar:** Approvals State (dropdown set to "Approved"), Approver (set to "alice"), Comments (empty), Approval for (empty), Created (set to "2025-09-12 08:43:22")
- Table Headers:** State, Approver, Comments, Approval for, Created
- Table Data:** One row showing "Approved", "alice", "(empty)", "(empty)", "2025-09-12 08:43:22". The "Approver" column contains "alice p".
- Pagination:** 1 to 1 of 1
- System Bar:** Shows various application icons (e.g., Microsoft Word, Excel, File Explorer, Task View) and system status (e.g., ENG IN, 1:17 AM, 9/13/2025).

Conclusion :

This project successfully demonstrates how to optimize user, group, and role management in ServiceNow with the implementation of access controls and automated workflows. By creating structured users, groups, roles, and tables, and applying ACLs, the project ensures that responsibilities are clearly defined and securely managed. The workflow automation with approvals further improves task assignment, accountability, and transparency in project management.

Through this implementation, the project team achieved the following outcomes:

- Streamlined user and role management.
- Secure and role-based access control to applications and tables.
- Automated task updates and approvals for better efficiency.
- Improved collaboration and accountability across the project team.

Overall, this project highlights the importance of structured access management and workflow automation in improving operational efficiency and ensuring clarity in task execution.