

## **PROJECT TITLE**

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

|             |                    |
|-------------|--------------------|
| Team Id     | NM2025TMID00858    |
| Team size   | 4                  |
| Team Leader | AFRIN NISHA B      |
| Team Member | GNANA SARASWATHI G |
| Team Member | ABI A              |
| Team Member | JEYA NIVEDHA P     |

## **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 edit screen for a user named Alice P. The user ID is set to Alice. The first name is Alice, and the last name is P. The title is Manager, and the department is Sales. The email address is alice@gmail.com, and the language is set to None. The calendar integration is set to Outlook, and the time zone is Systems (America/Los\_Angeles). The date format is Systems (yyyy-MM-dd). There are checkboxes for 'Password needs reset' (unchecked), 'Locked out' (unchecked), and 'Active' (checked). Other checkboxes for 'Web service access only' and 'Internal Integration User' are also unchecked. A 'Photo' field is present with a placeholder 'Click to add...'. At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete'. Below the main form, there is a 'Related Links' section with links to 'View friend accounts', 'View Subscriptions', and 'Reset a password'. A navigation bar at the bottom includes tabs for 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The search bar is empty.

Create one more user:

7. Create another user with the following details
8. Click on submit

The screenshot shows the ServiceNow User profile page for a user named 'Bob p'. The page includes fields for User ID (bob), First name (Bob), Last name (p), Title, Department, Email (bob@gmail.com), 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...). There are also checkboxes for Password needs reset, Locked out, Active (which is checked), Web service access only, and Internal Integration User. At the bottom, there are buttons for Update, Set Password, and Delete, along with tabs for Related Links, Groups, Delegates, Subscriptions, and 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.

The screenshot shows the 'Group - New Record' form in ServiceNow. The 'Name' field contains 'projectteam'. The 'Manager' field has a search icon. The 'Group email' field is empty. The 'Parent' field has a search icon. There is also a large empty text area for 'Description'. A 'Submit' button is at the bottom left.

## 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 'Role - project member' page in ServiceNow. The 'Name' field contains 'project member'. The 'Application' field is set to 'Global'. The 'Description' field is empty. Below the form, there are tabs for 'Contains Items', 'Applications with Role', 'Modules with Role', and 'Custom Tables'. A search bar and a 'New' button are at the bottom right. A modal window titled 'Role - project member' is open, showing a question mark icon and the message 'No records to display'.

Create one more role:

7. Create another role with the following details

8. Click on submit

The screenshot shows a ServiceNow interface for creating a new role. The title bar says 'Role - New Record'. The main form has a 'Name' field containing 'team member', an 'Application' dropdown set to 'Global', and a 'Description' field which is empty. At the bottom left is a 'Submit' button.

## 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://dev134007.service-now.com/nav/nav/u/classic/params/target/sys\_db.object.do?sys\_id=1026sys\_is\_left=true&sys\_target=1026sys\_db.object%2fsysparam\_checked\_item%3D

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

Table New record

\* Name: u\_project\_table Create module

Extends table:  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 | Maxlength | Default value | Display |
|---|-----------------|--------|-----------|-----------|---------------|---------|
| X | project id      | String | (empty)   | 40        | false         |         |
| X | project name    | String | (empty)   | 40        | false         |         |
| X | project manager | String | (empty)   | 40        | false         |         |

8. Click on submit

https://dev134007.service-now.com/nav/nav/u/classic/params/target/sys\_db.object.do?sys\_id=1026sys\_is\_left=true&sys\_target=1026sys\_db.object%2fsysparam\_checked\_item%3D

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

Table New record

\* Name: u\_task\_table\_2 Create module

Extends table:  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 | Maxlength | 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       | String    | (empty)   | 32        | false         |         |
| X |              | String    | (empty)   | 40        | false         |         |

## Create one more table:

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

10. Click on submit.

The screenshot shows the ServiceNow interface for creating a new table. The title bar says "Table - New Record". The main area is titled "Dictionary Entries" and contains a table with the following columns: Column label, Type, Reference, Max length, Default value, and Display. The table includes fields like Updated by, Updates, Updated, Sys ID, Created by, Created, taskid, taskname, assigned to, due date, status, and comments. The "Max length" column for the "status" field is highlighted with a blue selection box. At the bottom of the table, there is a link "Insert a new row..." and a "Submit" button.

| 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         |         |
| taskid       | Integer   |           |            | false         |         |
| taskname     | String    |           |            | false         |         |
| assigned to  | String    |           |            | false         |         |
| due date     | Date      |           |            | false         |         |
| status       | Choice    |           |            | false         |         |
| comments     | String    |           |            | false         |         |

## 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 user edit interface for a user named 'User - alice p'. The top navigation bar includes links for All, Favorites, History, Workspaces, Admin, and a search bar. The main form displays basic user information: 'Locked out' (unchecked), 'Active' (checked), and 'Internal Integration User' (unchecked). There are fields for 'Business phone' and 'Mobile phone', both currently empty. A 'Photo' field with the placeholder 'Click to add...' is also present. At the bottom of the form are buttons for Update, Set Password, and Delete. Below the form, a 'Related Links' section lists 'Few linked accounts', 'Few Subscriptions', and 'Reset password'. A 'Custom Tables' section shows tabs for Roles, Groups (0), Delegates, Subscriptions, and User Client Certificates. The 'Roles' tab is selected, showing a table with columns: Role, State, Inherited, and Inheritance Count. The table is empty, displaying the message 'No records to display'. A search bar and an 'Edit' button are located at the top right of this section.

## 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.

User - alice p

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

New linked accounts  
New Subscriptions  
Reset a password

Entitled Custom Tables Roles (2) Groups (1) Delegates Subscriptions User Client Certificates

| 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.

User ID: bob

First name: Bob

Last name: P

Title: None

Department: None

Email: bob@gmail.com

Mobile type: Home

Language: English

Calendar Integration: Outlook

Time zone: System (America/Los\_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to edit...

Active:

Locked out:

Password needs reset:

Remote Integration User:

[Update](#) [Set Password](#) [Delete](#)

**Groups** (3) [Delegates](#) [Subscriptions](#) [User Client Certificates](#)

## 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

Application Menu - project\_table

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

**Roles**  `a_project_table_user`

Specify the `menuCategory`, which defines the navigation menu style. The default value is Custom Applications.

**Category** `Custom Applications`

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

**Hint:**

**Description:**

## 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

The screenshot shows the ServiceNow Access Control (ACL) creation interface. At the top, there are tabs for 'Access Controls' and 'Search'. Below the tabs, a warning message states: 'Warning: An ACL's security attribute, data condition, or list of ACL controls via reference fields is required to properly secure access with this ACL.' The main form has the following fields:

- Type: record
- Operation: write
- Decision Type: Allow If
- Application: Global
- Active: checked
- Advanced: unchecked
- Protection policy: None
- Name: (empty field)
- Description: (empty text area)
- Applies To: Add Filter Condition, Add OR Clause

A 'Conditions' section is visible at the bottom left, which is currently empty.

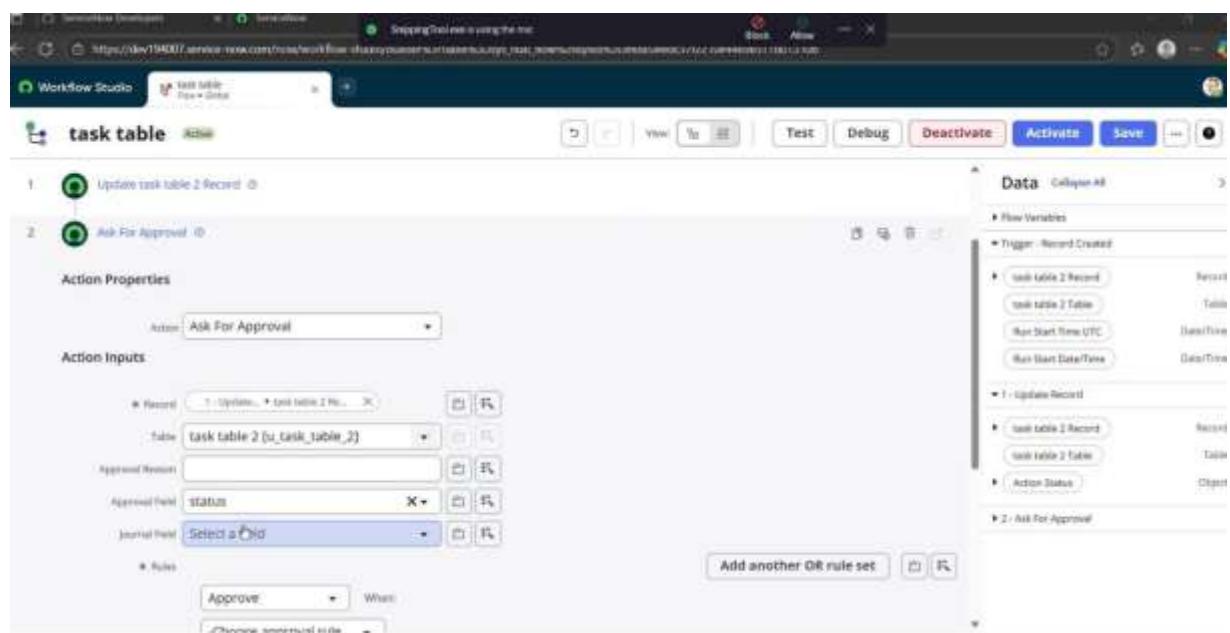
6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields
12. Click on profile on top right side

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.

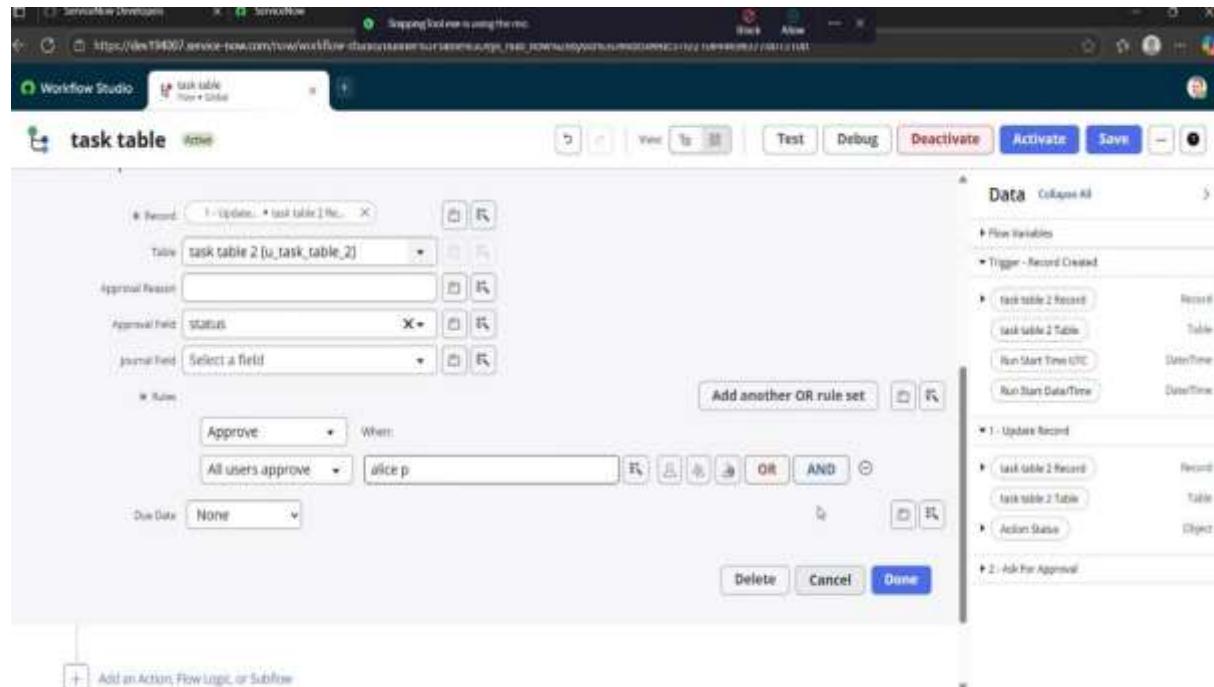
2. Select action in that, search for “update records”.

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 a ServiceNow interface for managing approvals. The top navigation bar includes links for All, Favorites, History, Workspaces, Approvals, and a search bar. The main area displays a list of approvals with the following columns:

| State     | Approver          | Comments    | Approval for        | Created |
|-----------|-------------------|-------------|---------------------|---------|
| Approved  | alice.o           | (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    | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Ron.Katherine     | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Luke.Wilson       | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Christen.Mitchell | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Bernard.Lobby     | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Howard.Johnson    | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Ron.Katherine     | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Luke.Wilson       | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Christen.Mitchell | CHG00000095 | 2024-09-01 06:15:29 |         |
| Requested | Bernard.Lobby     | CHG00000095 | 2024-09-01 06:15:29 |         |

At the bottom of the list, there is a note: "Go to Settings to activate Webhooks".

## 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.