

PROJECT TITLE

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

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Team size	4
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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 interface for editing a user account. The top navigation bar includes links for 'User - Alice p' and 'Search'. The main form displays the following fields:

User ID	alice	Email	alice@gmail.com
First name	Alice	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	<input type="checkbox"/>	Business phone	
Locked out	<input type="checkbox"/>	Mobile phone	
Active	<input checked="" type="checkbox"/>	Photo	Click to add...
Web service access only	<input type="checkbox"/>		
Internal Integration User	<input type="checkbox"/>		

Below the form, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Related Links' section contains links for 'View linked accounts', 'View subscriptions', and 'Reset a password'. At the bottom, there are tabs for 'Entitled Custom Tables', 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The interface uses a clean, modern design with a light blue header and white background.

Create one more user:

7. Create another user with the following details

8. Click on submit

The screenshot shows the ServiceNow User edit screen for a user named 'Bob'. The top navigation bar includes links for 'User - Bob p', 'Search', 'Admin', and 'User'. The main form contains 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...). Below the form are checkboxes for 'Password needs reset', 'Locked out', 'Active' (which is checked), 'Web service access only', and 'Internal Integration User'. At the bottom of the screen, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Related Links' section lists 'My linked accounts', 'New Subscription', and 'Reset a password'. A 'Selected Custom Tables' section shows 'Roles', 'Groups', 'Delegates', 'Subscriptions', and 'User Client Certificates'. A search bar at the bottom allows for 'Title' and 'Search'.

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.

Group - New Record

Name: project team

Manager:

Description:

Group parent: Parent

Submit

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.

Role - project member

Name: PROJECT MEMBER

Application: Global

Description:

Custom Fields

Role = project member

Contains: None

Applications with Role

Matches with Role

Custom Tables

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 top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The current page is 'Role - New Record'. The main form has a 'Name' field containing 'Team member', an 'Application' dropdown set to 'Global', and an 'Elevated privilege' checkbox that is not checked. Below the form, a large modal window is displayed with a single 'Submit' button at the bottom.

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://dev194007.service-now.com/nav/nav/u/class/params/target/sys_db_object.do?sys_id=1%26sys_in=1&true%26sys_target=0&sys_db_object%26sysparm_checked_items%3..

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
project id	String				false
project name	String				false
project manager	String				false

8. Click on submit

https://dev194007.service-now.com/nav/nav/u/class/params/target/sys_db_object.do?sys_id=1%26sys_in=1&true%26sys_target=0&sys_db_object%26sysparm_checked_items%3..

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
Updated by	String	[empty]	40		false
Updates	Integer	[empty]	40		false
Updated	Date/Time	[empty]	40		false
sys ID	String	[empty]	32		false
	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 Table - New Record interface. At the top, there are tabs for All, Favorites, History, Workspaces, Admin, and a search bar. Below the tabs, there's a toolbar with icons for search, refresh, and other functions. The main area is titled "Dictionary Entries" and contains a table with columns: Column label, Type, Reference, Max length, Default value, and Display. The table lists various fields such as Updated by, Updates, Updated, SysID, Created by, Created, taskid, taskname, assigned to, due date, status, and comments. The "Default value" column for the "status" field is currently highlighted with a blue selection bar. At the bottom of the table, there's a link to "Insert a new row..." and a row of buttons with "Submit" and "Cancel" being the most prominent.

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
SysID	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
Insert a new row...					

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 screen 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 of which are currently empty. A 'Photo' field is present with the placeholder 'Click to add...'. Below the form are buttons for Update, Set Password, and Delete. A 'Related Links' section lists 'New User Accounts', 'New Subscriptions', and 'Reset a password'. A tabbed navigation bar at the bottom includes 'Untitled Custom Tables', 'Roles' (which is selected), 'Groups(D)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. A search bar and an 'Edit...' button are also present. The 'Roles' tab displays a table with columns for Role, State, Inherited, and Inheritance Count. The table body contains a single row with a small icon and the text 'No records to display'.

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.

The screenshot shows the ServiceNow user profile page for 'User - alice p'. The top navigation bar includes links for All, Favorites, History, Workspaces, Admin, and a search bar. The main content area displays user details: 'User - alice p', 'Password needs reset' (unchecked), 'Locked out' (unchecked), 'Active' (checked), and 'Internal Integration User' (unchecked). There are fields for 'Date format' (set to 'System (yyyy-MM-dd)'), 'Business phone', and 'Mobile phone'. A 'Photo' field with the placeholder 'Click to add...' is present. Action buttons include 'Update', 'Set Password', and 'Delete'. Below this, a 'Related Links' section lists 'New External Accounts', 'New Subscriptions', and 'Reset a password'. A 'Entitled Custom Tables' section shows roles assigned to the user:

Role	State	Inherited	Inheritance Count
u_project_table_user	Active	false	
u_task_table_2_user	Active	false	

Pagination at the bottom indicates '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.

The screenshot shows the ServiceNow User Setup page. It displays a form for creating or editing a user account. The fields include User ID (bob), Firstname (bob), Lastname (bob), Title (Software Developer), Department (IT), Email (bob@gmail.com), and various other optional fields like Monitor type, Language, Calendar Integration, Timezone, and Dateformat. At the bottom, there are buttons for Update, Set Password, and Delete.

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

The screenshot shows the ServiceNow Application Menu - project table page. It includes fields for Roles (u.project_table_user), Category (Custom Applications), Hint, and Description. There are also buttons for Update, Delete, and New. The bottom navigation bar shows tabs for Modules, Order, and Search, along with filters for Title, Active, Filter, Order, Unit type, Device type, Roles, and Updated.

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. The main form has the following details:

- Type: record
- Operation: write
- Decision Type: Allow
- Application: Global
- Active: checked
- Protection policy: None
- Name: Task Table
- Description: Task Table
- Applies To: Buttons for 'Add Filter Condition' and 'Add OR Clause'

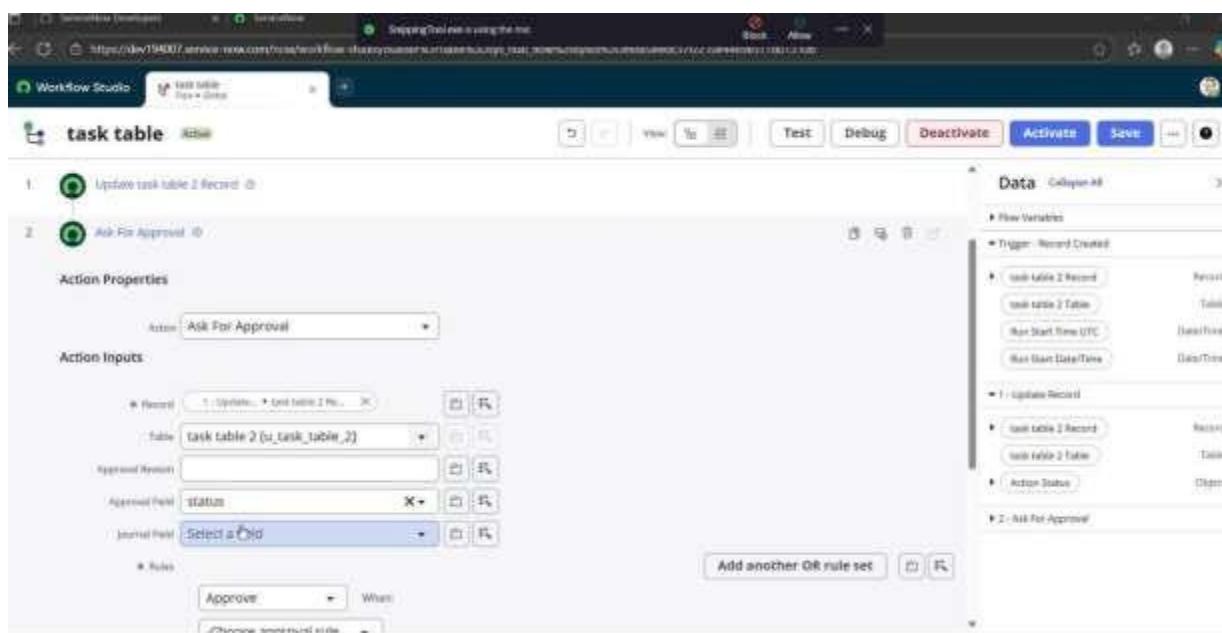
A warning message at the top states: "Warning: An 'acls.security_attributes' data condition, script or ACL control via reference fields is required to properly secure access with this ACL."

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.

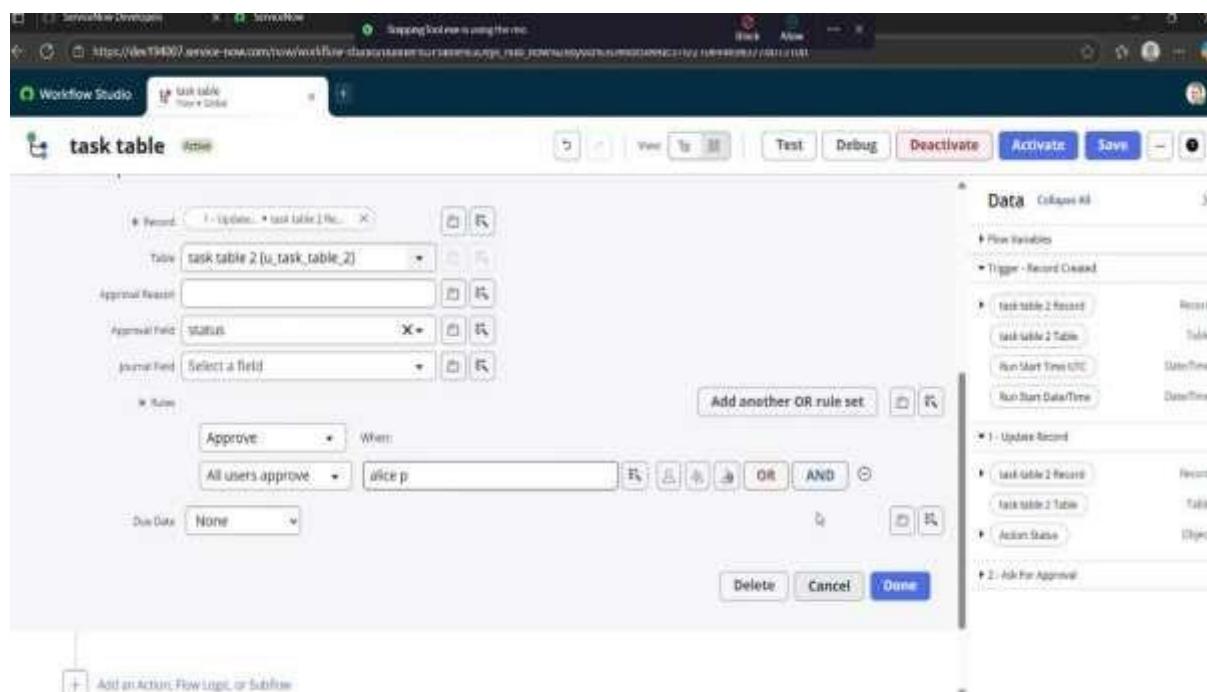
2. Select action in that, search for “update records”.

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

	State	Approver	Comments	Approver for	Created
	Search	Search	Search	Search	Search
	Approved	alice p.		(empty)	2024-09-01 22:22:26:19
	Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
	Requested	Fred Luddy		(empty)	2024-09-01 12:17:33
	Requested	Howard Johnson		CHG00000096	2024-09-01 06:15:29
	Requested	Ron Kathering		CHG00000096	2024-09-01 06:15:29
	Requested	Luke Wilson		CHG00000096	2024-09-01 06:15:29
	Requested	Christen Mitchell		CHG00000096	2024-09-01 06:15:29
	Requested	Bernard Laboy		CHG00000096	2024-09-01 06:15:29
	Requested	Howard Johnson		CHG00000095	2024-09-01 06:15:29
	Requested	Ron Kathering		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 Laboy		CHG00000095	2024-09-01 06:15:29

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.