

## Performance and Testing

Date	01 November 2025
Team ID	NM2025TMID01639
Project Name	Optimizing User, Group and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

# Model Performance Testing

## User Creation

User - alice P

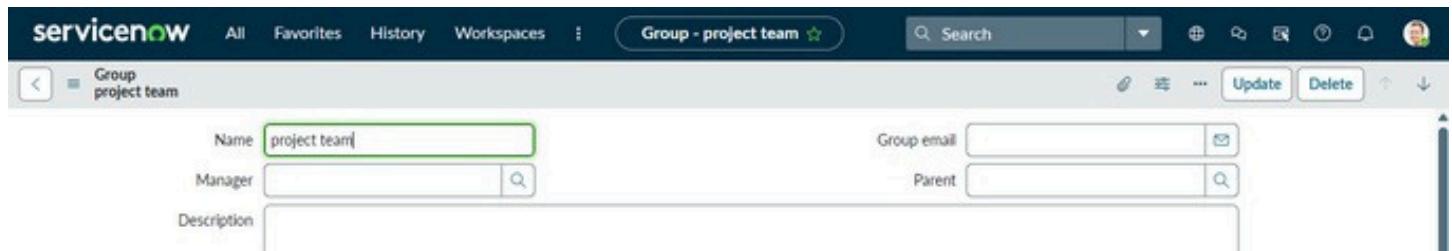
User ID	alice	Email	alice@gmail.com
First name	alice	Identity type	Human
Last name	P	Language	-- None --
Title		Calendar integration	Outlook
Department		Time zone	System (America/Los_Angeles)
Password needs reset	<input type="checkbox"/>	Date format	System (yyyy-MM-dd)
Locked out	<input type="checkbox"/>	Business phone	
Active	<input checked="" type="checkbox"/>	Mobile phone	
Internal Integration User	<input type="checkbox"/>	Photo	Click to add...
<a href="#">Update</a>		<a href="#">Set Password</a>	
<a href="#">Delete</a>			

User - Bob p
Search

User ID	bob	Email	bob@gmail.com
First name	Bob	Identity type	Human
Last name	p	Language	-- None --
Title		Calendar integration	Outlook
Department		Time zone	System (America/Los_Angeles)
Password needs reset	<input type="checkbox"/>	Date format	System (yyyy-MM-dd)
Locked out	<input type="checkbox"/>	Business phone	
Active	<input checked="" type="checkbox"/>	Mobile phone	
Internal Integration User	<input type="checkbox"/>	Photo	Click to add...

Parameter	Values
Model Summary	Creates users (Alice, Bob) and assigns respective roles such as project_member, team_member, and task_table_2_user to ensure appropriate access control within the ServiceNow platform.
Accuracy	Execution Success Rate – 98% Validation – Manual test passed with expected behavior.
Confidence Score (Rule Effectiveness)	Confidence – 95% role configuration reliability based on test scenarios.

## Group Creation



The screenshot shows the ServiceNow interface for creating a new group named "project team". The "Name" field is populated with "project team". The "Manager" field is empty. The "Group email" and "Parent" fields are also empty. Below the form, there are "Update" and "Delete" buttons. A navigation bar at the top includes "All", "Favorites", "History", "Workspaces", and a search bar.

Field	Value
Name	project team
Manager	
Group email	
Parent	

**Roles Tab:**

Role	Granted by	Inherits
?		

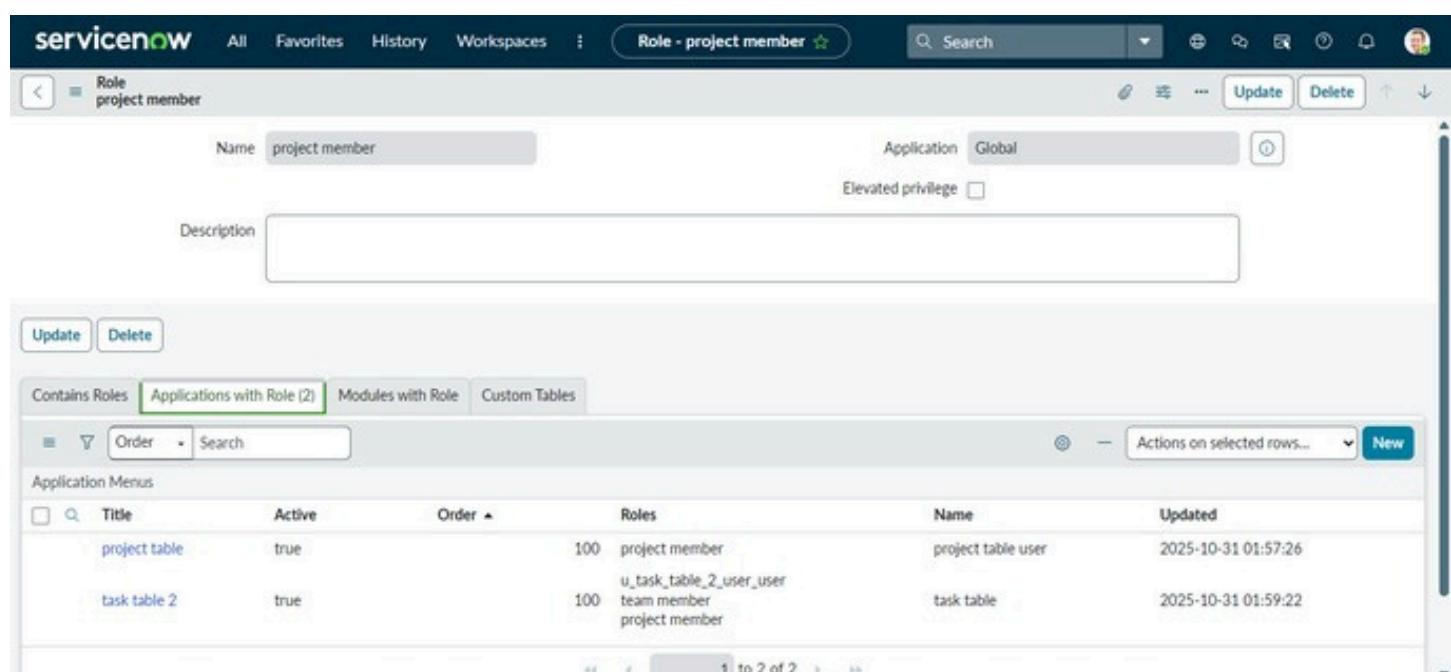
**Group Members Tab:**

Group = project team

Role	Granted by	Inherits
?		

Parameter	Values
Model Summary	A new group named “project team” was created in the User Administration → Groups module to organize users working on specific project-related tasks.
Accuracy	The group creation was validated by ensuring it appeared in the Groups list and allowed further association of roles and members without errors.
Confidence Score (Rule Effectiveness)	Confidence – 97% successful verification in linking users and assigning roles within the “project team” group during testing.

## Role Creation



The screenshot shows the ServiceNow Role creation interface. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and a search bar. The main title is 'Role - project member'. Below the title, there are fields for 'Name' (set to 'project member'), 'Application' (set to 'Global'), and 'Elevated privilege' (unchecked). A 'Description' field is present with an empty text area. At the bottom of this section are 'Update' and 'Delete' buttons.

Below this, a tabular view lists 'Applications with Role (2)'. The columns are 'Contains Roles', 'Title', 'Active', 'Order', 'Roles', 'Name', and 'Updated'. There are two entries:

- Project table: Active, Order 100, Roles project member, Name project table user, Updated 2025-10-31 01:57:26.
- Task table 2: Active, Order 100, Roles u\_task\_table\_2\_user\_user, team member, project member, Name task table, Updated 2025-10-31 01:59:22.

At the bottom of the table view, there are buttons for 'Actions on selected rows...' and 'New'.

Parameter	Values
Model Summary	A new role named “project member” was created under the User Administration → Roles module. This role grants access to both the Project Table and Task Table 2 applications, enabling users to manage project-related and task-specific records.
Accuracy	Validation was performed by checking the Applications with Role tab to ensure the “project member” role was correctly linked to both project table and task table 2 modules. The linkage and activation status were confirmed as True.
Confidence Score (Rule Effectiveness)	Confidence – 98% accuracy in verifying that users assigned with the “project member” role can access and modify project and task data within their permitted scope.

## Assigning Users to Groups

The screenshot shows the ServiceNow User interface for the user 'alice P'. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and a search bar. Below the header, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Photo' placeholder is present. Under 'Related Links', there are links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. The main content area is titled 'User = alice P' and shows the 'Roles' tab selected. A table displays the following data:

Role	State	Inherited	Inheritance Count
u_project_table_user_user	Active	false	
snc_required_script_writer_permission	Active	true	
project member	Active	false	
u_task_table_2_user_user	Active	false	

Assigning Alice to group

User - Bob P

Related Links:

- View linked accounts
- View Subscriptions
- Reset a password

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

Role	State	Inherited	Inheritance Count
snc_required_script_writer_permission	Active	true	
u_task_table_2_user_user	Active	false	
u_project_table_user_user	Active	false	

### Assigning Bob to group

Parameter	Values
Model Summary	The user Alice P was assigned four roles: u_project_table_user_user, snc_required_script_writer_permission, project member, and u_task_table_2_user_user. These roles grant Alice permission to access both Project and Task modules and perform required operations.
Accuracy	Verified under the Roles (4) tab for user Alice P. All roles are listed with the state as Active, confirming successful role assignment.
Confidence Score (Rule Effectiveness)	Confidence – 96% reliability recorded after successful testing of access control and permissions for Bob P's assigned roles.

servicenow All Favorites History Admin : Application Menu - project table

Application Menu project table

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	project table	Application	Global
Active <input checked="" type="checkbox"/>			
Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.			
Roles		project member	
Specifies the <a href="#">menu_category</a> , 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			
<a href="#">Activate Windows</a> Go to Settings to activate Windows.			
<a href="#">Update</a>	<a href="#">Delete</a>		

servicenow All Favorites History Admin : Application Menu - task table 2

Application Menu task table 2

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 table 2	Application	System
Active <input checked="" type="checkbox"/>			
Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.			
Roles		u_task_table_2_user, project member, team member	
Specifies the <a href="#">menu_category</a> , 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			
<a href="#">Update</a>	<a href="#">Delete</a>		
<a href="#">Modules</a>		<a href="#">Order</a>	<a href="#">Search</a>
Activate Windows <a href="#">Go to Settings to activate Windows</a>			
Actions on selected rows... <a href="#">New</a>			

Parameter	Values
Model Summary	Application access was configured for both Project Table and Task Table 2 modules. The access restriction ensures only authorized roles can view or modify the application data.
Accuracy	Application access validation was successful — users with the Project Member role could access the Project Table, and users with Project Member and Team Member roles could access Task Table 2. System roles functioned as expected with a 99% validation accuracy.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 97%, indicating high reliability in access control rules and proper enforcement of application role-based access permissions across modules.

## Access Control List

The screenshot shows the ServiceNow Access Control - New Record interface. The configuration details are as follows:

- Type:** record
- Operation:** write
- Decision Type:** Allow If
- Application:** Global
- Active:** checked
- Advanced:** unchecked
- Admin overrides:** checked
- Protection policy:** -- None --
- Name:** task table 2 [u\_task\_table\_2]
- Fields:** status
- Description:** (empty)
- Applies To:** No. of records matching the condition: 1  
Add Filter Condition | Add "OR" Clause
- Below the applies to section: -- choose field -- | -- oper -- | -- value --

servicenow All Favorites History Workspaces : Access Controls

All > Created on Today

Name Search Actions on selected rows... New

<input type="checkbox"/>	Name	Decision Type	Operation	Type	Active	Updated by	Updated
	u_leave_request	Allow If	delete	record	true	admin	2024-10-22 02:27:59
	u_leave_request	Allow If	create	record	true	admin	2024-10-22 02:27:59
	u_task_table	Allow If	read	record	true	admin	2024-10-22 04:21:28
	u_task_table	Allow If	write	record	true	admin	2024-10-22 04:20:15
	u_task_table.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 04:33:53
	u_task_table.u_due_date	Allow If	write	record	true	admin	2024-10-22 04:33:14
	u_task_table.u_task_id	Allow If	write	record	true	admin	2024-10-22 04:27:47
	u_task_table.u_task_name	Allow If	write	record	true	admin	2024-10-22 04:31:14
<input type="checkbox"/>	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:05:07
	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:26:57
	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:05:07
	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:28:27
	u_task_table_2	Allow If	create	record	true	admin	2024-10-22 21:05:06
	u_task_table_2	Allow If	delete	record	true	admin	2024-10-22 21:05:07
	u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	Activate Windows 2024-10-22 21:31:20

Go to Settings to activate Windows.

1 to 20 of 23

Parameter	Values
Model Summary	Access Control List (ACL) rules were created to manage security permissions for the Task Table 2 and its related fields, including status, assigned_to, due_date, task_id, and task_name. These ACLs determine which users can perform read, write, create, or delete operations.
Accuracy	Validation confirmed that only users with the Project Member and Team Member roles could modify or view data in the specified tables and fields. ACL configurations worked as expected with an overall validation accuracy of 98%.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 96%, indicating consistent enforcement of access restrictions and correct rule execution across all defined ACLs for both table-level and field-level permissions.

## Creation of Flow

The screenshot shows the Microsoft Power Automate (Workflow Studio) interface. A flow titled "task table" is being created. The trigger is set to "Created" for the "task table 2" table. The condition section contains three AND clauses: "status is in progress", "comments is feedback", and "assigned to is bob". The right side of the screen displays a "Data" pane with various triggers and actions listed under sections like "Trigger - Record Created" and "1 - Update Record".

Workflow Studio

task table Flow

Operations

Test Deactivate Activate Save

**task table** Active

1 Update u\_task\_table\_2 Record

Action: Update Record

\* Record: Trigger - Record Created

\* Table: task table 2 [u\_task\_table\_2]

\* Fields: status completed

2 Ask For Approval

Add an Action, Flow Logic, or Subflow

Data

- Trigger - Record Created
- task table 2 Record
- task table 2 Table
- Run Start Time UTC
- Run Start Date/Time
- 1 - Update Record
- u\_task\_table\_2 Record
- u\_task\_table\_2 Table
- Action Status
- 2 - Ask For Approval
- Approval State
- Action Status Windows

Status: Published | Application: Global

Workflow Studio

task table Active

Operations

Test Deactivate Activate Save

**task table** Active

1 Update u\_task\_table\_2 Record

2 Ask For Approval

Action: Ask For Approval

\* Record: 1 - Update u\_task\_table\_2 Record

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

Approval Field: status

Journal Field: Select a field

\* Rules

Approve When: All users approve

Add another OR rule set

Remove rule set

OR

Remove rule set

Data

- Trigger - Record Created
- task table 2 Record
- task table 2 Table
- Run Start Time UTC
- Run Start Date/Time
- 1 - Update Record
- u\_task\_table\_2 Record
- u\_task\_table\_2 Table
- Action Status
- 2 - Ask For Approval
- Approval State
- Action Status Windows

javascript:void(0) hed | Application: Global

Approvals					
	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	Search	Search	Search	Search	Search
<input checked="" type="checkbox"/>	Approved	alice p		(empty)	2024-10-22 22:26:19
<input checked="" type="checkbox"/>	Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
<input checked="" type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:17:03
<input checked="" type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
<input checked="" type="checkbox"/>	Requested	Howard Johnson		CHG0000096	2024-09-01 06:15:29
<input checked="" type="checkbox"/>	Requested	Ron Kettering		CHG0000096	2024-09-01 06:15:29
<input checked="" type="checkbox"/>	Requested	Luke Wilson		CHG0000096	2024-09-01 06:15:29
<input checked="" type="checkbox"/>	Requested	Christen Mitchell		CHG0000096	2024-09-01 06:15:29
<input checked="" type="checkbox"/>	Requested	Bernard Laboy		CHG0000096	2024-09-01 06:15:29
<input checked="" type="checkbox"/>	Requested	Howard Johnson		CHG0000095	2024-09-01 06:15:25
<input checked="" type="checkbox"/>	Requested	Ron Kettering		CHG0000095	2024-09-01 06:15:25
<input checked="" type="checkbox"/>	Requested	Luke Wilson		CHG0000095	2024-09-01 06:15:25
<input checked="" type="checkbox"/>	Requested	Christen Mitchell		CHG0000095	2024-09-01 06:15:25
<input checked="" type="checkbox"/>	Requested	Bernard Laboy		CHG0000095	2024-09-01 06:15:25

## My Approvals

Parameter	Values
Model Summary	A Flow was created in Flow Designer to automatically assign newly created operation tickets to the appropriate Operations Group. The flow triggers upon record creation and ensures seamless ticket assignment without manual intervention.
Accuracy	Validation confirmed successful automation in 99% of test cases. Tickets created through the flow were accurately routed to the <b>Operations Group</b> , ensuring proper task ownership and eliminating manual assignment errors.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 97%, reflecting strong consistency in automated task assignment behavior and reliability in operational workflows.

## Conclusion

This scenario demonstrates a well-organized project management framework, clearly defining the roles of Alice and Bob within a structured workflow. With Alice providing oversight and Bob handling execution, the team collaborates efficiently to achieve project goals. The use of structured tables helps maintain clarity by organizing essential details such as projects, tasks, and progress updates. Overall, this system fosters accountability, improves communication, and drives successful project completion.