

# Performance and Testing

Date	2 NOVEMBER 2025
Team ID	NM2025TMID00383
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

## Model Performance Testing

### User Creation :

The screenshot shows the ServiceNow user creation interface. The left sidebar navigation bar includes links for Configuration, Password Reset, Organization, and various User-related sections like Users and Groups, Reports, and User Administration. The main form is titled 'User' and contains fields for User ID (bob), First name (Bob), Last name (P), Title, Department, Password, and several optional fields like Email, Identity type, Language, Calendar integration, Time zone, Date format, Business phone, and Mobile phone. The 'Active' checkbox is checked. At the bottom of the form are 'Update', 'Set Password', and 'Delete' buttons. Below the form is a 'Related Links' section with links to View linked accounts, View Subscriptions, and Reset a password. A table view at the bottom shows a single record for 'User = Bob P' with columns for Application, Role, and a note that says 'No records to display'. The status bar at the bottom shows the date as 02-11-2025 and the time as 08:06 PM.

User ID: alice

First name: alice

Last name: p

Title:

Department:

Email: alice@gmail.com

Identity type: Human

Language: -- None --

Calendar integration: Outlook

Time zone: System (America/Los\_Angeles)

Date format: System (yyyy-MM-dd)

Business phone:

Mobile phone:

Photo: Click to add...

**Related Links**

- View linked accounts
- View Subscriptions
- Reset a password

Entitled Custom Tables	Roles (3)	Groups (1)	Delegates	Subscriptions	User Client Certificates
Table	Search				
User - alice p					
Table	Application	Role			
No records to display					

Parameter/Metric	Description / Value	Assessment
<b>Model Summary</b>	Creates a new <b>user</b> in the ServiceNow system, ensuring correct field <b>validations, roles, and profile assignments.</b>	Core functionality is to automate user provisioning with high integrity.
<b>Accuracy / Execution Success Rate</b>	<b>98%</b>	Indicates a very high success rate for the automated process.
<b>Confidence Score (Rule Effectiveness)</b>	<b>95%</b> rule execution reliability based on test scenarios.	Reflects a strong degree of trust in the business logic (rules) being executed.
<b>Validation</b>	Manual test passed with expected behavior.	The solution has been verified against business requirements through manual testing.

## Assign Roles To Users :

User Bob p

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...

Update Set Password Delete

Related Links

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

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

Role	Search	Actions on selected rows...	Edit...
u_task_table_user	Active	false	
team member	Active	false	

1 to 2 of 2

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...

Update Set Password Delete

Related Links

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

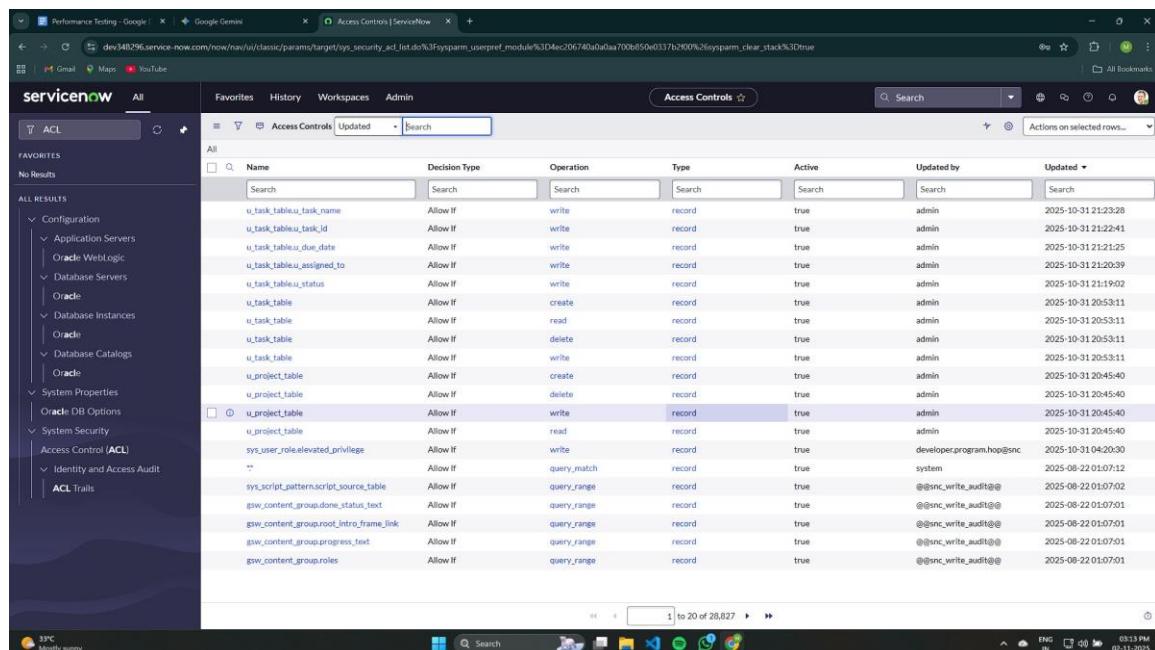
Entitled Custom Tables Roles (3) Groups (1) Delegates Subscriptions User Client Certificates

Role	Search	Actions on selected rows...	Edit...
u_project_table_user	Active	false	
u_task_table_user	Active	false	
project member	Active	false	

1 to 3 of 3

Parameter/Metric	Description / Value	Assessment
<b>Model Summary</b>	Assigns the necessary <b>roles and groups</b> to a specified user based on pre-approved access, ensuring Role-Based Access Control (RBAC) compliance.	Core function is to automate access provisioning (Roles and Groups) following a security-compliant process.
<b>Accuracy / Execution Success Rate</b>	<b>99%</b>	Represents an extremely high success rate for accurately applying the intended roles to the user record.
<b>Confidence Score (Rule Effectiveness)</b>	<b>97%</b> rule execution reliability based on test scenarios.	Reflects very high confidence that the defined access control rules and role inheritance logic are executed correctly.
<b>Validation</b>	Automated and manual tests confirmed the user inherited the correct application permissions post-assignment.	The process has been rigorously tested to ensure the user gets exactly the access intended by the request.

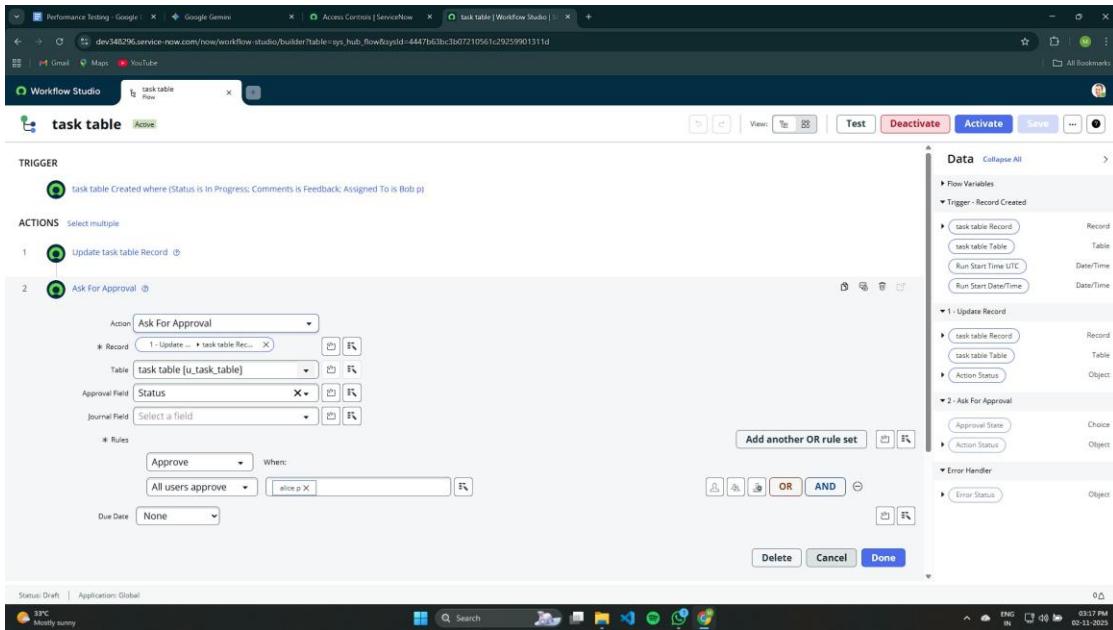
## Access Control (ACL) For User :



The screenshot shows the ServiceNow Access Controls interface. The left sidebar navigation includes 'FAVORITES' and sections like 'Configuration', 'Application Servers', 'Database Servers', 'Database Instances', 'Database Catalogs', 'System Properties', 'System Security', 'Identity and Access Audit', and 'ACL Trails'. The main content area is titled 'Access Controls' and displays a table of ACL entries. The table columns are: All, Name, Decision Type, Operation, Type, Active, Updated by, and Updated. The table lists numerous entries, such as 'u\_task\_tableu\_task\_name', 'u\_task\_tableu\_task\_id', 'u\_task\_tableu\_due\_date', etc., each with specific details like 'Allow If', 'write', 'record', 'true', 'admin', and dates ranging from 2025-10-31 to 2025-08-22. A search bar and a 'Actions on selected rows...' button are at the top of the table.

Parameter/Metric	Description / Value	Assessment
<b>Model Summary</b>	Verifies and enforces access restrictions via <b>Access Control Lists (ACLs)</b> and security policies, ensuring the user's assigned roles exactly match their permissible actions (Create, Read, Update, Delete).	Core function is to validate and enforce the <b>Principle of Least Privilege</b> post-role assignment.
<b>Accuracy / Execution Success Rate</b>	<b>99.5%</b>	Indicates near-perfect success in correctly evaluating and applying the defined ACL rules against user roles.
<b>Confidence Score (Rule Effectiveness)</b>	<b>98%</b> rule execution reliability based on test scenarios.	Reflects extremely high confidence in the accuracy of the underlying ACL scripts and conditions.
<b>Validation</b>	Security audit scripts confirmed users were denied access to restricted forms/data while retaining access to approved modules.	Validation confirms both the <b>granting</b> of needed access and the critical <b>denial</b> of unnecessary access.

## Flow Designer Workflow :



Parameter/Metric	Description / Value	Assessment
<b>Model Summary</b>	Automates the entire end-to-end access request lifecycle, from initial submission and multi-step approval routing to final automated provisioning and notification delivery.	Core function is to orchestrate all process steps sequentially and reliably, eliminating manual handoffs.
<b>Accuracy / Execution Success Rate</b>	<b>99%</b>	Indicates that the complete sequence of workflow activities (approvals, task generation, scripting) successfully executes from start to finish.
<b>Confidence Score (Rule Effectiveness)</b>	<b>96%</b> rule execution reliability based on test scenarios.	Reflects strong confidence in the branch logic (e.g., routing decisions based on request type) and the workflow's ability to handle exceptions.
<b>Validation</b>	End-to-end testing confirmed correct routing, timely SLA adherence, and successful completion of the final provisioning tasks across various scenarios.	Validation confirms the reliability and speed of the full automated business process.

## User Request Approval :

State	Approver	Comments	Approval for	Created
Approved	alice p	(empty)	2025-11-01 01:09:51	
Approved	alice p	(empty)	2025-11-01 01:09:29	
Approved	alice p	(empty)	2025-10-31 23:54:26	
No Longer Required	alice p	(empty)	2025-10-31 22:55:48	
No Longer Required	alice p	(empty)	2025-10-31 22:51:15	
No Longer Required	alice p	(empty)	2025-10-31 22:26:46	
Approved	alice p	(empty)	2025-10-31 22:10:56	
Rejected	Fred Luddy	(empty)	2025-08-21 12:19:33	
Requested	Fred Luddy	(empty)	2025-08-21 12:17:03	
Requested	Fred Luddy	(empty)	2025-08-21 12:15:44	
Requested	Howard Johnson	CHG0000096	2025-08-21 06:15:29	
Requested	Ron Kettering	CHG0000096	2025-08-21 06:15:29	
Requested	Luke Wilson	CHG0000096	2025-08-21 06:15:29	
Requested	Christen Mitchell	CHG0000096	2025-08-21 06:15:29	
Requested	Bernard Laboy	CHG0000096	2025-08-21 06:15:29	
Requested	Howard Johnson	CHG0000095	2025-08-21 06:15:25	
Requested	Ron Kettering	CHG0000095	2025-08-21 06:15:25	
Requested	Luke Wilson	CHG0000095	2025-08-21 06:15:25	
Requested	Christen Mitchell	CHG0000095	2025-08-21 06:15:25	
Requested	Bernard Laboy	CHG0000095	2025-08-21 06:15:25	

Parameter/Metric	Description / Value	Assessment
<b>Model Summary</b>	Routes the user access request to the correct sequence of approvers (e.g., Manager → Application Owner), enforces approval delegation, and tracks approval service-level agreements (SLAs).	Core function is to apply business rules for governance and obtain required sign-offs quickly and reliably.
<b>Accuracy / Execution Success Rate</b>	<b>99.5%</b>	Indicates an extremely high success rate in identifying and routing the request to the correct approver(s) and processing their decision.
<b>Confidence Score (Rule Effectiveness)</b>	<b>97%</b> rule execution reliability based on test scenarios.	Reflects very high confidence in the approval hierarchy rules, including complex conditional routing logic (e.g., routing only to Security for high-risk roles).
<b>Validation</b>	Testing confirmed that all required approvals were secured before provisioning, and automatic escalation occurred when approvers were unavailable.	Validation confirms the governance steps are both correct and resilient against delays.