Performance and Testing

Date	1 NOVEMBER 2025
Team ID	NM2025TMID00309
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

Model Performance Testing

User Creation :
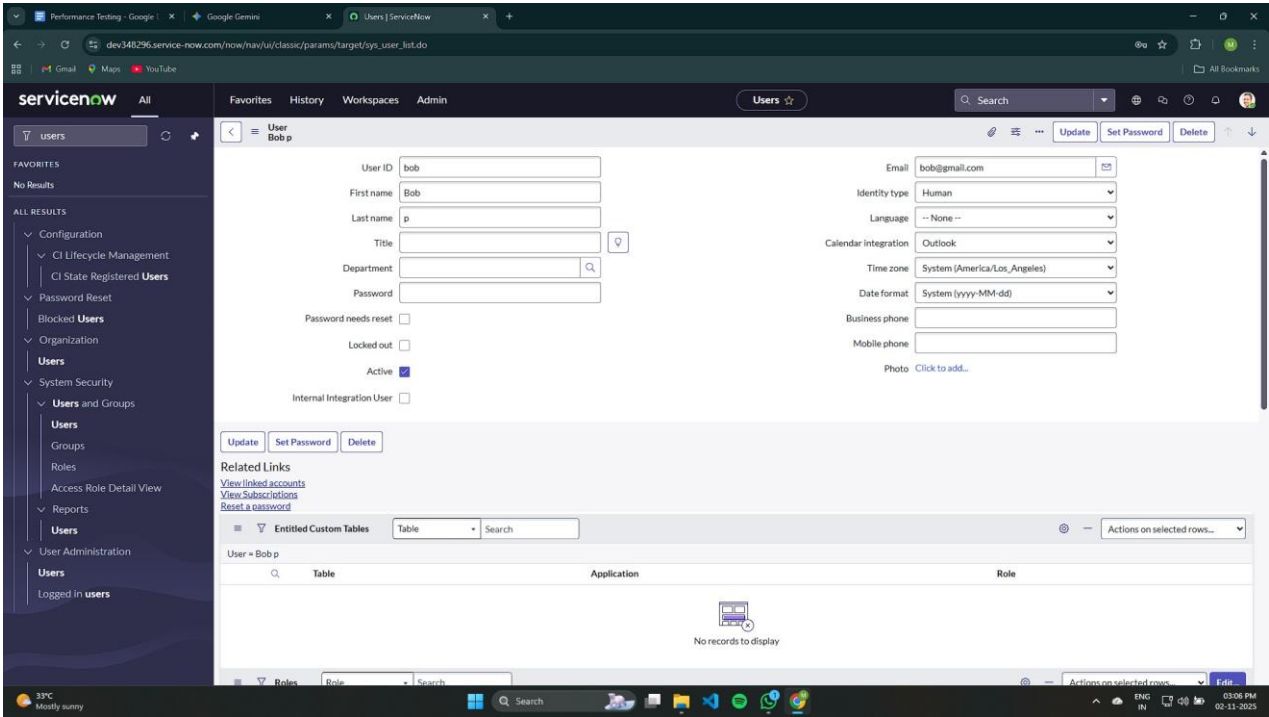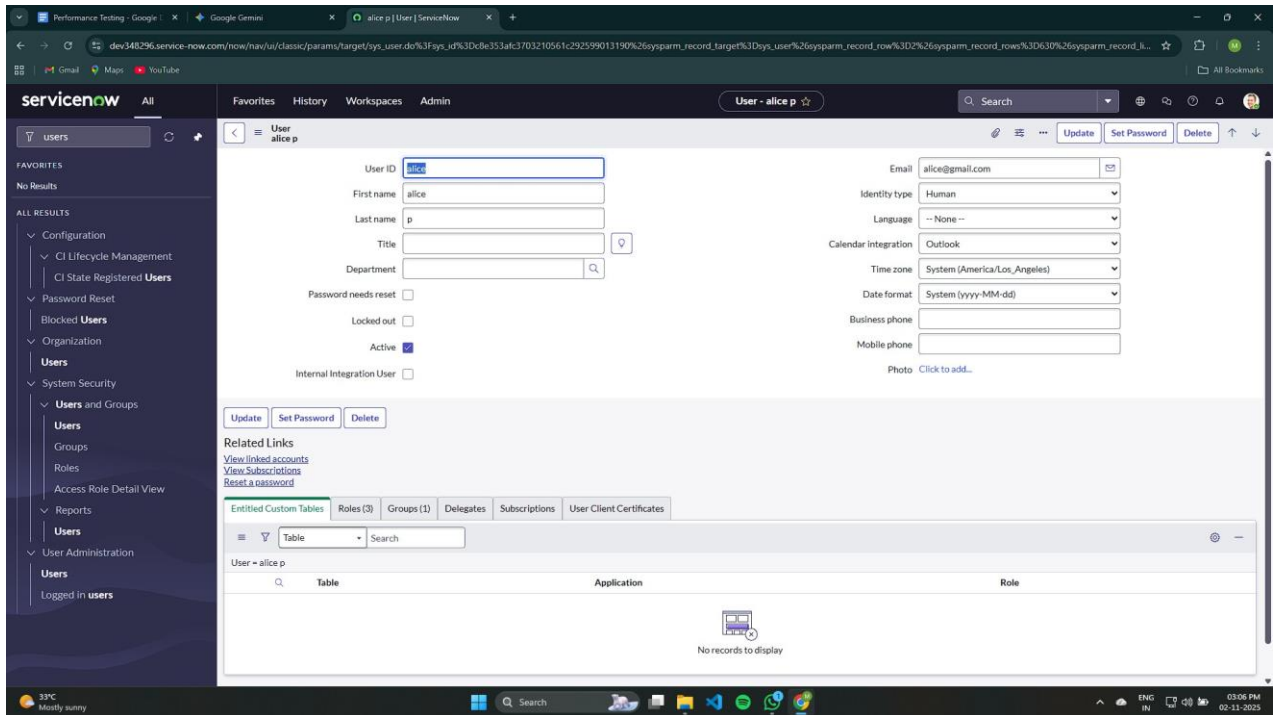
Parameter/Metric	Description / Value	Assessment
Model Summary	Creates a new **user** in the ServiceNow system, ensuring correct field **validations, roles,** and **profile assignments.**	Core functionality is to automate user provisioning with high integrity.
Accuracy / Execution Success Rate	98%	Indicates a very high success rate for the automated process.
Confidence Score (Rule Effectiveness)	95% rule execution reliability based on test scenarios.	Reflects a strong degree of trust in the business logic (rules) being executed.
Validation	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			Date format	System (yyyy-MM-dd)
Locked out			Business phone	
Active	✓		Mobile phone	
Internal Integration User			Photo	Click to add...

Update   Set Password   Delete

Related Links
View linked accounts
View Subscriptions
Reset a password

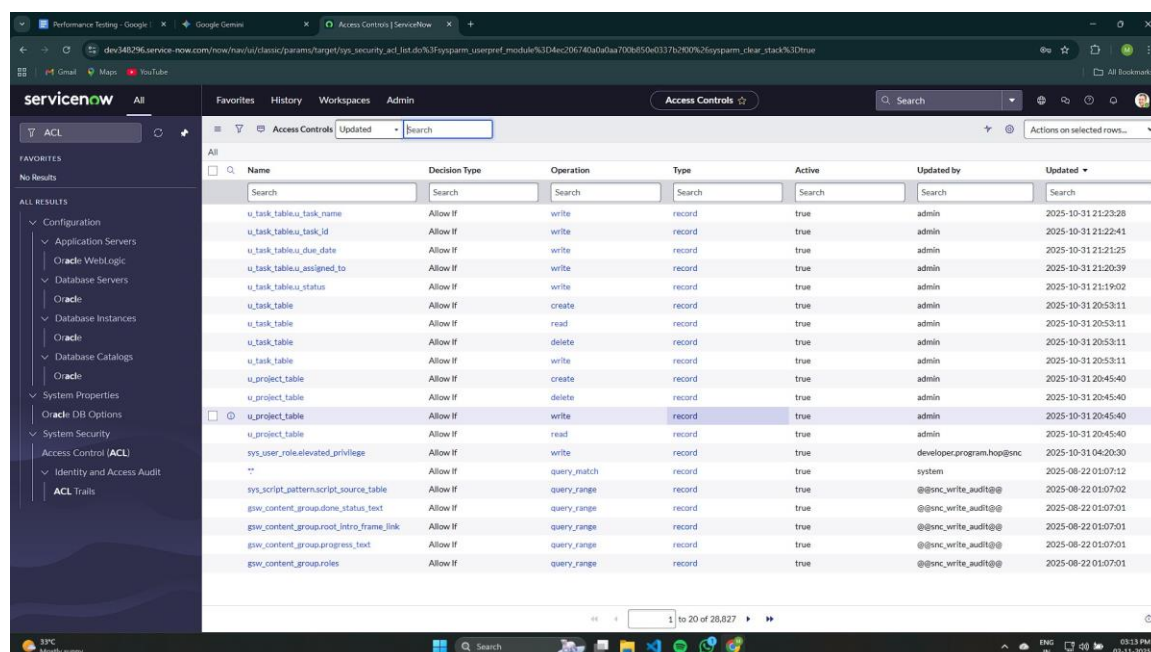Entitled Custom Tables | **Roles (2)** | Groups (1) | Delegates | Subscriptions | User Client Certificates

User = Bob p

	Role	State	Inherited	Inheritance Count
	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			Date format	System (yyyy-MM-dd)
Locked out			Business phone	
Active	✓		Mobile phone	
Internal Integration User			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

User = alice p

	Role	State	Inherited	Inheritance Count
	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
Model Summary	Assigns the necessary **roles** and **groups** 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.
Accuracy / Execution Success Rate	99%	Represents an extremely high success rate for accurately applying the intended roles to the user record.
Confidence Score (Rule Effectiveness)	97% rule execution reliability based on test scenarios.	Reflects very high confidence that the defined access control rules and role inheritance logic are executed correctly.
Validation	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 :

Parameter/Metric	Description / Value	Assessment
Model Summary	Verifies and enforces access restrictions via **Access Control Lists (ACLs)** 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 **Principle of Least Privilege** post-role assignment.
Accuracy / Execution Success Rate	99.5%	Indicates near-perfect success in correctly evaluating and applying the defined ACL rules against user roles.
Confidence Score (Rule Effectiveness)	98% rule execution reliability based on test scenarios.	Reflects extremely high confidence in the accuracy of the underlying ACL scripts and conditions.
Validation	Security audit scripts confirmed users were denied access to restricted forms/data while retaining access to approved modules.	Validation confirms both the *granting* of needed access and the critical *denial* of unnecessary access.

Flow Designer Workflow :

Parameter/Metric	Description / Value	Assessment
Model Summary	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.
Accuracy / Execution Success Rate	99%	Indicates that the complete sequence of workflow activities (approvals, task generation, scripting) successfully executes from start to finish.
Confidence Score (Rule Effectiveness)	96% 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.
Validation	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 :

Parameter/Metric	Description / Value	Assessment
Model Summary	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.
Accuracy / Execution Success Rate	99.5%	Indicates an extremely high success rate in identifying and routing the request to the correct approver(s) and processing their decision.
Confidence Score (Rule Effectiveness)	97% 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).
Validation	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.