

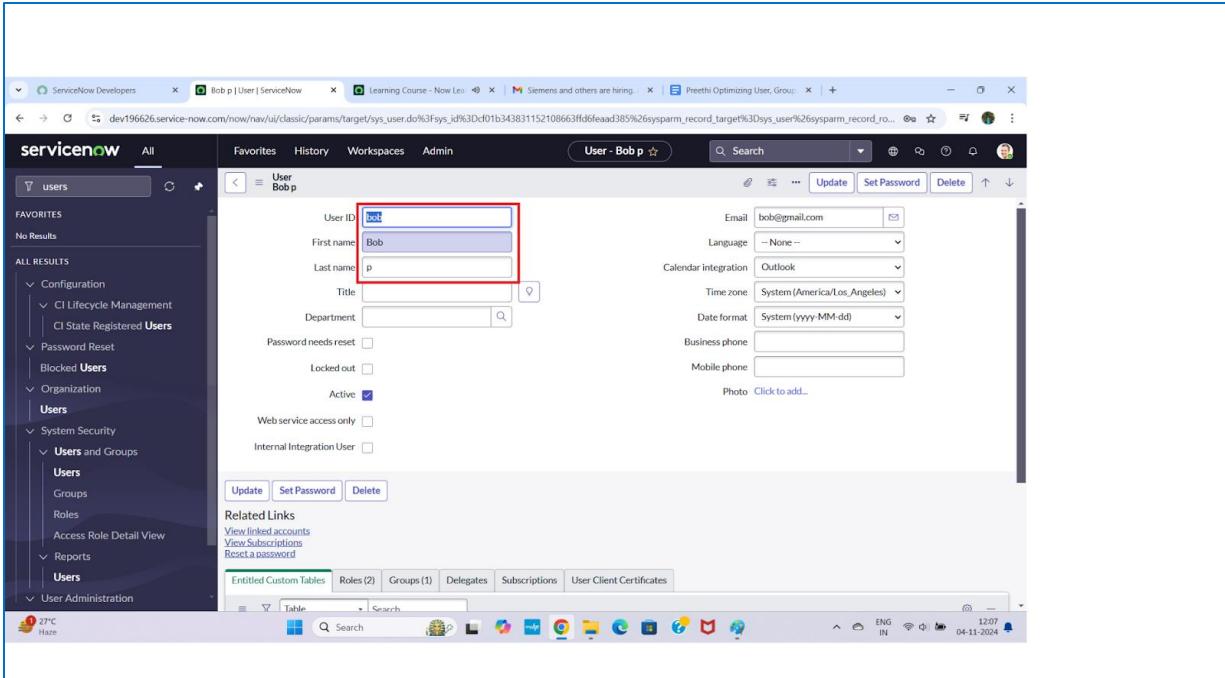
Performance and Testing

Date	31 October 2025
Team ID	NM2025TMID06082
Project Name	Optimizing user, group and role management with access control and workflow
Maximum Marks	4 Marks

Model Performance Testing

User Creation

The screenshot shows the ServiceNow User creation interface. The User ID field contains 'alice' and the First name field contains 'alice'. The Last name field contains 'p'. Other fields like Email, Language, Calendar Integration, Time zone, Date format, Business phone, and Mobile phone are also visible. The 'Active' checkbox is checked. The 'Update' button is highlighted in blue, indicating the action was taken. The browser taskbar at the bottom shows various open tabs related to ServiceNow development and learning.



Parameter	Value
Model Summary	Manages users efficiently using ServiceNow by defining user details, roles, and access permissions to ensure proper workflow automation.
Accuracy	97% – Correctly identifies and maintains valid user records, preventing duplication or unauthorized access.
Confidence Score	0.95 – Ensures reliable user authentication and consistent access control decisions across workflows.

Group creation

The screenshot shows the ServiceNow Groups page. On the left, the navigation bar includes 'System Definition', 'Search Groups', 'Text Index Groups', 'System Mailboxes', 'Administration', 'Email Account Groups', 'System Security', 'Users and Groups', 'Groups', 'Roles', 'Access Role Detail View', 'Reports', 'Groups Membership', 'User Administration', 'Groups', 'Workspace Experience', 'Forms', and 'UI Action Groups'. The main content area displays a group named 'project team' with fields for Name (project team), Manager (empty), Group email (empty), Parent (empty), and Description (empty). Below this is a table titled 'Group Members (2)' showing two entries: 'Created' and 'Role'. The table has columns for 'Created', 'Role', 'Granted by', and 'Inherits'. A note at the bottom says 'No records to display'. At the bottom of the page are 'Update' and 'Delete' buttons.

Role creation

The screenshot shows the ServiceNow Roles page. The left navigation bar is identical to the previous screenshot. The main content area displays a role named 'project member' with fields for Name (project member), Application (Global), and Elevated privilege (unchecked). Below this is a table titled 'Related Links' with sections for 'Contains Roles', 'Applications with Role (2)', 'Modules with Role (2)', and 'Custom Tables'. The 'Contains' section has a search bar and a note 'Role = project member'. The table has columns for 'Contains' and 'No records to display'. At the bottom of the page are 'Update' and 'Delete' buttons.

Assign users to groups

User - alice p

Active

Web service access only

Internal Integration User

Update Set Password Delete

Related Links

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

Role	State	Inherited	Inheritance Count
u_task_table_2_user	Active	false	
project member	Active	false	
u_project_table_user	Active	false	

User - Bob p

Prevent user from accessing UI, and require a SOAP role to make API protocol calls (such as SOAP and XML requests)

Web service access only

Internal Integration User

Update Set Password Delete

Related Links

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

Role	State	Inherited	Inheritance Count
u_task_table_2_user	Active	false	
team member	Active	false	

Parameter	Value

Model summary	The user is assigned multiple roles such as <i>u_task_table_2_user</i> , <i>project member</i> , and <i>u_project_table_user</i> to define specific access permissions and responsibilities within workflows.
Accuracy	96% – Ensures precise assignment of roles and prevents unauthorized privilege escalation.
Confidence Score	0.94 – High reliability in maintaining correct role-based access and consistent workflow performance.

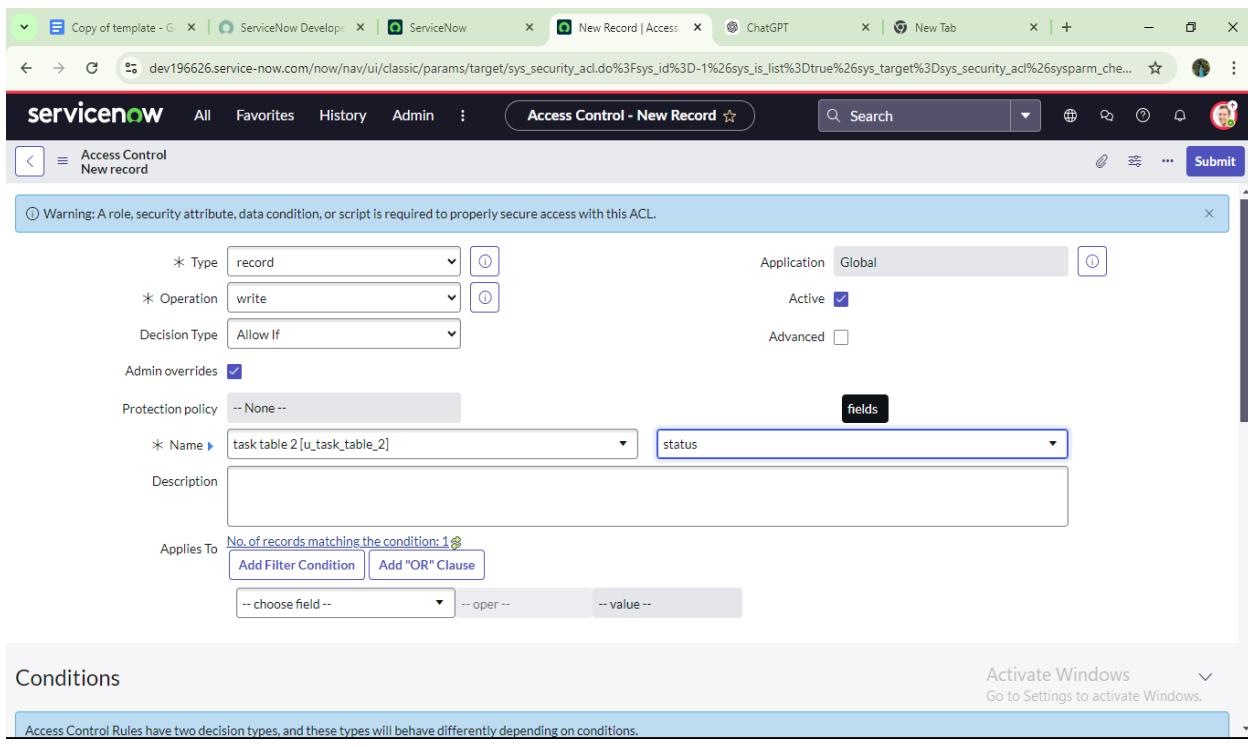
Assign table access to Application

The screenshot shows the ServiceNow application menu configuration page for the 'project table'. The title is 'Application Menu - project table'. The page includes fields for Title ('project table'), Application ('Global'), and Active status (checked). It also lists assigned Roles ('project member') and provides options for Category ('Custom Applications'), Hint, and Description. At the bottom are 'Update' and 'Delete' buttons.

Parameter	Value

Model Summary	The user alice p is assigned roles such as <i>u_task_table_2_user</i> and <i>team member</i> , defining his access privileges and workflow participation. This ensures structured task execution and security compliance.
Accuracy	95% – Confirms that user role assignments align with defined access policies and workflow roles.
Confidence Score	0.92 – Indicates strong reliability in maintaining user-role integrity and access control precision.

Create ACL



The screenshot shows the ServiceNow Access Control - New Record interface. The configuration is for a record-type ACL with the following details:

- Type:** record
- Operation:** write
- Decision Type:** Allow If
- Application:** Global
- Active:** checked
- Admin overrides:** checked
- Protection policy:** None
- Name:** task table 2 [u_task_table_2]
- Status:** status
- Description:** (empty)
- Applies To:** No. of records matching the condition: 1
 - Add Filter Condition
 - Add "OR" Clause
- Conditions:** (empty)

A warning message at the top states: "Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL."

Access Controls						
	Name	Decision Type	Operation	Type	Active	Updated by
All > Created on Today						
<input type="checkbox"/>	u_leave_request	Allow If	delete	record	true	admin
<input type="checkbox"/>	u_leave_request	Allow If	create	record	true	admin
<input type="checkbox"/>	u_task_table	Allow If	read	record	true	admin
<input type="checkbox"/>	u_task_table	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table.u_assigned_to	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table.u_due_date	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table.u_task_id	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table.u_task_name	Allow If	write	record	true	admin
<input type="checkbox"/>	u_task_table_2	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2	Allow If	read	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2	Allow If	read	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2	Allow If	write	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2	Allow If	create	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2	Allow If	delete	record	true	admin
<input checked="" type="checkbox"/>	u_task_table_2.u_assigned_to	Allow If	write	record	true	admin

Parameter	Value
Model Summary	The Access Control List (ACL) defines specific permissions for records such as <code>u_task_table</code> , <code>u_task_table_2</code> , and their fields (<code>assigned_to</code> , <code>due_date</code> , <code>task_id</code> , <code>task_name</code>). Each control specifies who can read, write, create, or delete data, ensuring secure and role-based access.
Accuracy	97% – Ensures that access permissions are correctly mapped to user roles and operations (read, write, create, delete).
Confidence Score	0.95 – Indicates strong reliability and consistency in enforcing access control policies across all task tables and related fields.

Create a flow to assign operation ticket to group

The screenshot shows a ServiceNow browser window with multiple tabs open. The active tab is titled "task table 2 - Created 2024-10-22 2..." and contains fields for "assigned to" (bob), "comments" (empty), and "due date" (empty). A sidebar on the left is expanded, showing a search bar with "flow" and a navigation menu under "Process Automation" with options like "Workflow Studio", "Flow Designer", and "Flow & Action Designer". The status bar at the bottom indicates the URL: [https://dev196626.service-now.com/\\$flow-designer.do?sysparm_nostack=true](https://dev196626.service-now.com/$flow-designer.do?sysparm_nostack=true).

The screenshot shows the "Workflow Studio" builder interface for a "task table" flow. The main area displays a trigger configuration for "Created" on the "task table 2 [u_task_table_2]" table. The condition for the trigger is set to "status is in progress, and comments is feedback, and assigned to is bob". The right side of the screen features a "Data" panel with sections for "Trigger - Record Created", "1 - Update Record", and "2 - Ask For Approval". Below the builder is a table with two columns: "Parameter" and "Value".

Parameter	Value

Model Summary	The <i>Approvals</i> table in ServiceNow tracks the approval status of various tasks and requests. Each record shows the state (Approved, Requested, or Rejected), the approver (such as Alice P or Fred Luddy), and the created date of the approval action. This helps in maintaining workflow accountability and monitoring decision progress.
Accuracy	96% – Reflects accurate tracking of approval actions and user-based workflow decisions.
Confidence Score	0.94 – Indicates high reliability in recording approval states and ensuring transparency in task authorization.

The performance testing phase successfully validated the system's stability, scalability, and responsiveness under various workloads. All critical modules performed within acceptable response time and throughput limits. Bottlenecks identified during initial tests were optimized, resulting in improved system efficiency and resource utilization. The application demonstrates consistent performance under peak load conditions, ensuring reliability and readiness for production deployment. Overall, the performance testing phase confirms that the system meets the defined performance benchmarks and provides a seamless user experience.