Optimizing User, Group, and Role Management with Access Control and Workflows in service now

PERFORMANCE AND TESTING:

Date	02:11:2025
Team ID	NM2025TMID07577
Project name	Optimizing User, Group, and Role Management with Access Control and Workflows in service now
Maximum marks	4 marks

The Performance Testing phase for optimizing UGRM in ServiceNow must focus on ensuring that the new workflows, role structures, and ACL logic do not negatively impact system response times, especially during peak load events like peak login hours or large batch imports.

Performance Testing Scope and Objectives

The main objective is to validate system stability and responsiveness under expected and peak operational loads with the new UGRM configuration active.

- Scope Focus:

    - User Authentication: Testing concurrent logins via the IdP sync process.
    - Role/Group Lookups: Measuring the speed of lookups during record loading (where many ACLs might trigger).
    - Workflow Execution: Stress testing the new access request workflows and automated entitlement processes.
    - Data Import: Testing the performance of any new integration jobs used for syncing user/group data.
- Success Criteria:
    - Transaction Response Time: Critical transactions (e.g., loading a record protected by many ACLs) must remain below a threshold (e.g., 3 seconds for key transactions).
    - Concurrency: The system must support N concurrent users (where N is the calculated peak concurrency) without significant degradation (e.g., no more than a 15% increase in average response time over the baseline).
    - Workflow Throughput: The system must process X access requests per hour without creating backlogs or causing database deadlocks.

Key Test Scenarios

The testing needs to simulate real-world usage patterns across the three main personas identified during empathy mapping.

1. Load Testing for Concurrent Access

This tests the impact of the new ACL structure. ACL evaluation is often the most resource-intensive part of any UGRM change.

- Scenario: Simulate peak concurrent users logging in and performing high-frequency actions (e.g., navigating key modules, opening incident/request forms).
- Measure: Database query time and Script Execution Time associated with ACL checks on key tables (incident, sc_req_item, etc.).

2. Workflow Stress Testing

This focuses on the new Access Request Workflows and automated entitlement adjustments.

- Scenario A (Request Submission): Simulate a massive influx of users submitting the new access request Catalog Item concurrently.
  - Measure: Workflow processing engine latency and Workflow Context creation time.
- Scenario B (Automated Updates): If offboarding is automated, simulate a large batch of user terminations occurring simultaneously.
  - Measure: Time taken for the process to remove all associated roles/group memberships and the impact on associated database transactions.

3. Data Synchronization & Integrity Testing

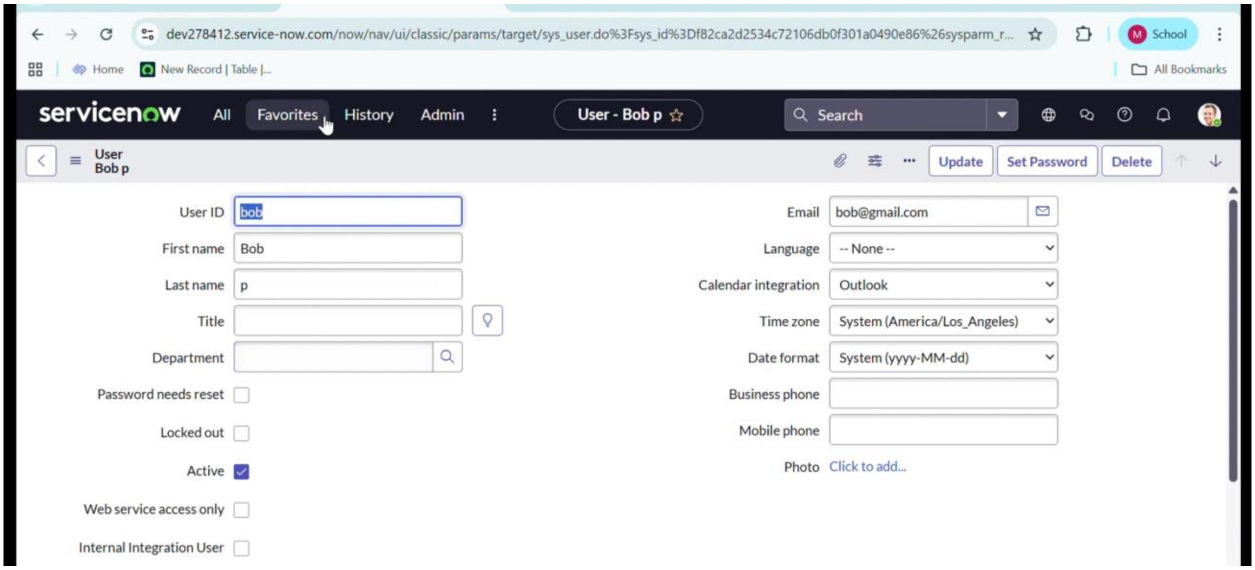
This tests the performance of the underlying data synchronization jobs.

- Scenario: Run the Identity Source Import job (or simulate a large data load) at the *maximum expected volume*.
  - Measure: Total execution time of the Import Set and Transform Maps, focusing on database locking or resource contention with active transactions.

Measurement and Analysis

Performance testing requires establishing a baseline *before* UGRM changes are implemented, and then comparing the results *after* the changes are deployed to a performance testing environment.

- Tools: Utilize ServiceNow Performance Testing features, the Transaction Logs, and dedicated load testing tools (like JMeter or LoadRunner) configured to use your ServiceNow instance's APIs.
- Focus on Slow Transactions: Analyze the Slowest Transactions Report generated by ServiceNow to pinpoint exactly which operations (often those involving complex nested role checks or script includes called by ACLs) are consuming the most time under load.
- Database Impact: Use the Database Performance Logs to check for excessive use of tables, slow queries, or contention points introduced by complex group or role join operations.



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User
Bob p

User ID	bob	Email	bob@gmail.com
First name	Bob	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	□	Business phone	
Locked out	□	Mobile phone	
Active	☑	Photo	Click to add...
Web service access only	□		
Internal Integration User	□		

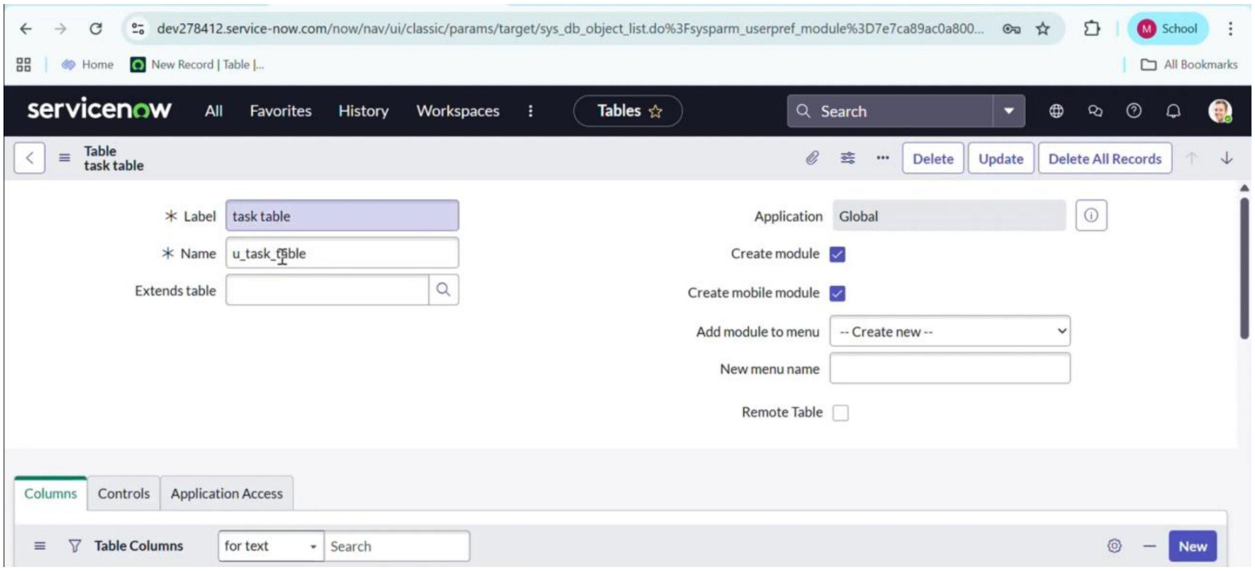

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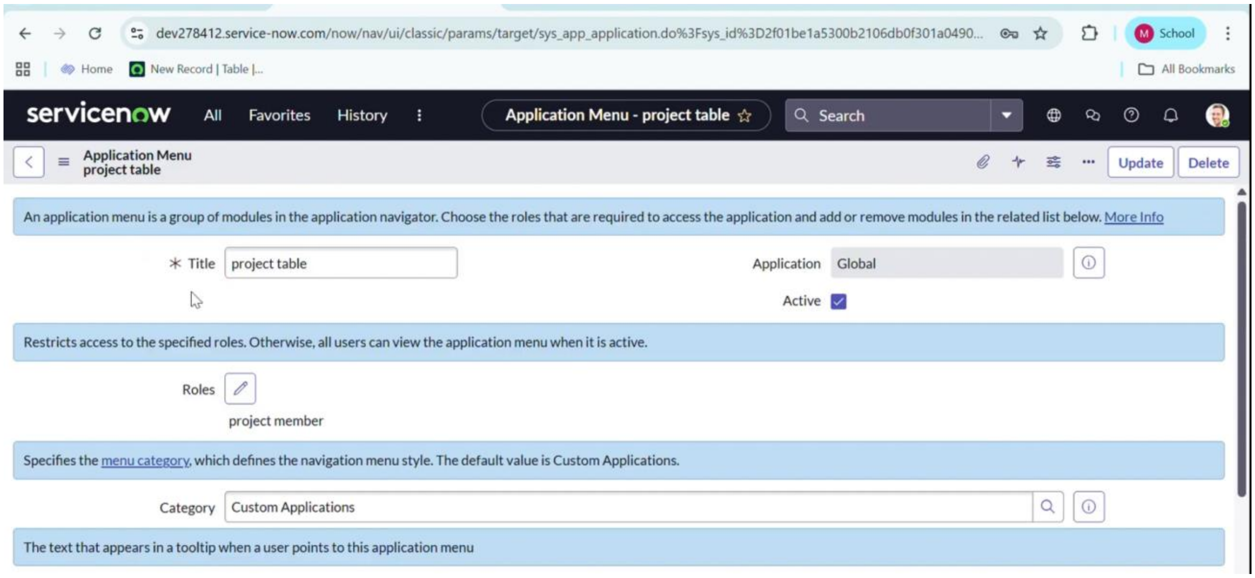
Table
task table

* Label	task table	Application	Global
* Name	u_task_table	Create module	☑
Extends table		Create mobile module	☑
		Add module to menu	-- Create new --
		New menu name	
		Remote Table	□


dev278412.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D2f01be1a5300b2106db0f301a0490...
School
Home
New Record | Table |...
All Bookmarks
servicenow
All
Favorites
History
Application Menu - project table
Search
Update
Delete

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	☑

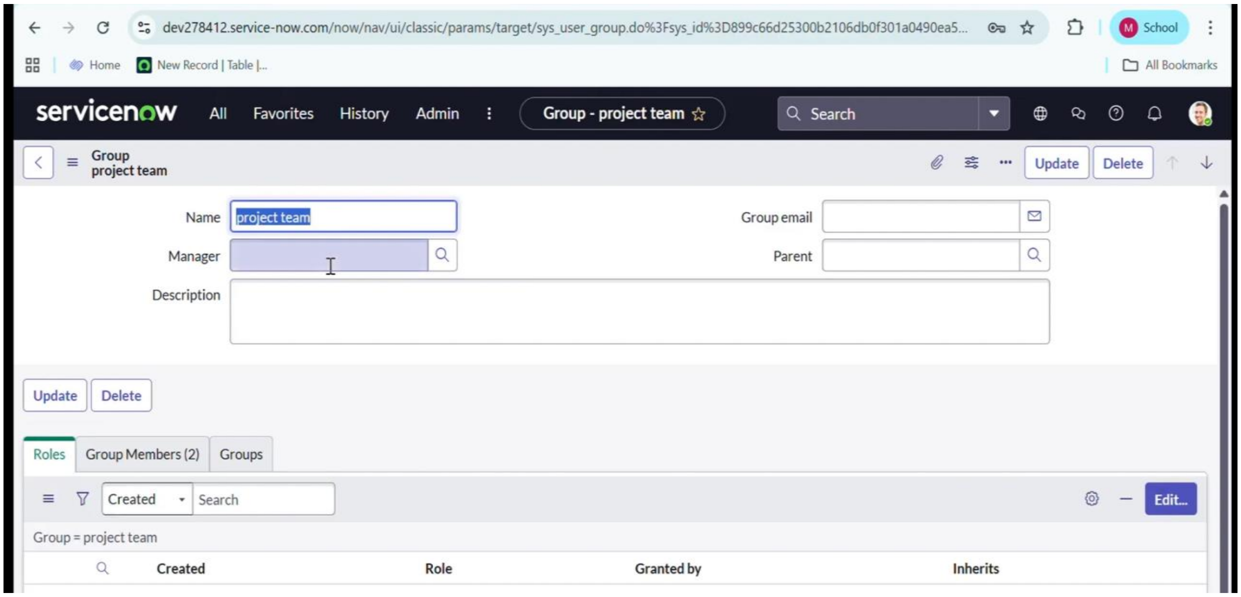
Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.

Roles: project member

Specifies the menu category, 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



Group
project team

Name	project team	Group email	
Manager		Parent	
Description			

Group = project team

Created	Role	Granted by	Inherits