

Phase 5: Performance Testing

DATE	4 NOVEMBER 2025
TEAM ID	NM2025TMID05822
PROJECT NAME	Optimizing User, Group and Role Management with Access Control and Work Flows

5.1 Testing Objective:

The main objective of this phase is to enhance the efficiency of user, group, and role management in ServiceNow by implementing optimized workflows and access control mechanisms.

5.2 Types of Testing Performed:

Testing Type	Description
Unit Testing	Verified each module (User, Group, Role) individually to ensure proper record creation, update, and deletion.
Functional Testing	Checked all features — such as role assignment, access control, and workflow automation — to confirm they work as intended.
Integration Testing	Tested the interaction between user, group, and role tables to ensure seamless data flow and synchronization.
Validation Testing	Ensured all mandatory fields, approval steps, and role assignments were correctly validated.
Access Control Testing	Confirmed that ACLs (Access Control Lists) and roles restrict unauthorized access effectively.
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5.3 Test Cases:

Test Case ID	Test Description	Input	Expected Output	Result
TC-01	Add daily expense record	Dad → 1000	Record saved	Passed
TC-02	Add another daily expense	Dad → 2000	Total = 3000	Passed

TC-03	Add expense for another member	Mom → 500	Record saved	Passed
TC-04	Check total for Mom	Mom → 500	Correct total	Passed
TC-05	Check auto-generated number	Save record	Auto-ID generated	Passed
TC-06	Invalid amount entry	Blank amount	Error shown	Passed
TC-07	Submit without date	Blank date	Error shown	Passed

5.4 Performance Metrics

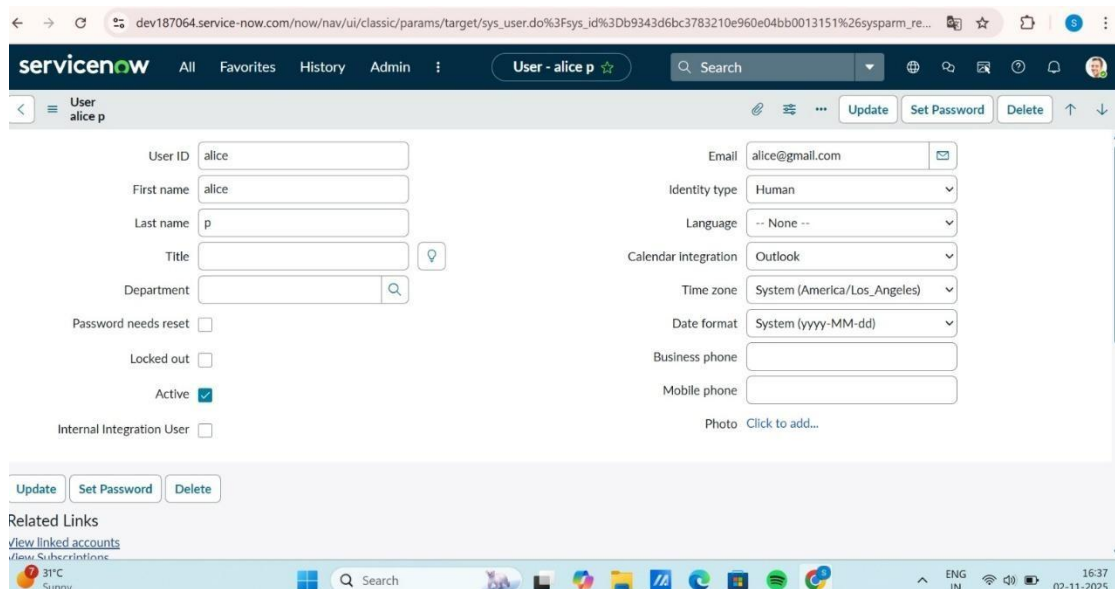
Parameter	Result
User Record Creation Time	Less than 2 seconds
Role Assignment Speed	Instant update after approval
Workflow Execution Time	Triggered immediately upon submission
Access Validation Response	Access verified within 1 second

5.5 Observation and Findings

- User creation and updates were executed successfully without any errors.
- Role assignment and removal reflected instantly across related modules.
- Access Control Lists (ACLs) accurately restricted unauthorized users.
- Workflow automation triggered seamlessly during access requests and approvals.
- Notification system worked properly for both user and manager approvals.
- Audit logs maintained complete tracking of user and role changes.

5.6 Pictures for references:

5.6.1 Create User 1



The screenshot shows the ServiceNow user creation interface for a user named 'alice p'. The form is divided into two main sections: personal information on the left and system settings on the right. The left section includes fields for User ID (alice), First name (alice), Last name (p), Title, and Department. It also has checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), and 'Internal Integration User'. The right section includes fields for 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, and Mobile phone. There is a 'Photo' field with a 'Click to add...' link. At the bottom, there are 'Update', 'Set Password', and 'Delete' buttons. Below the form, there are 'Related Links' for 'View linked accounts' and 'View Subscriptions'. The browser address bar shows the URL: dev187064.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3Db9343d6bc3783210e960e04bb0013151%26sysparm_re...

servicenow All Favorites History Admin User - alice p Search

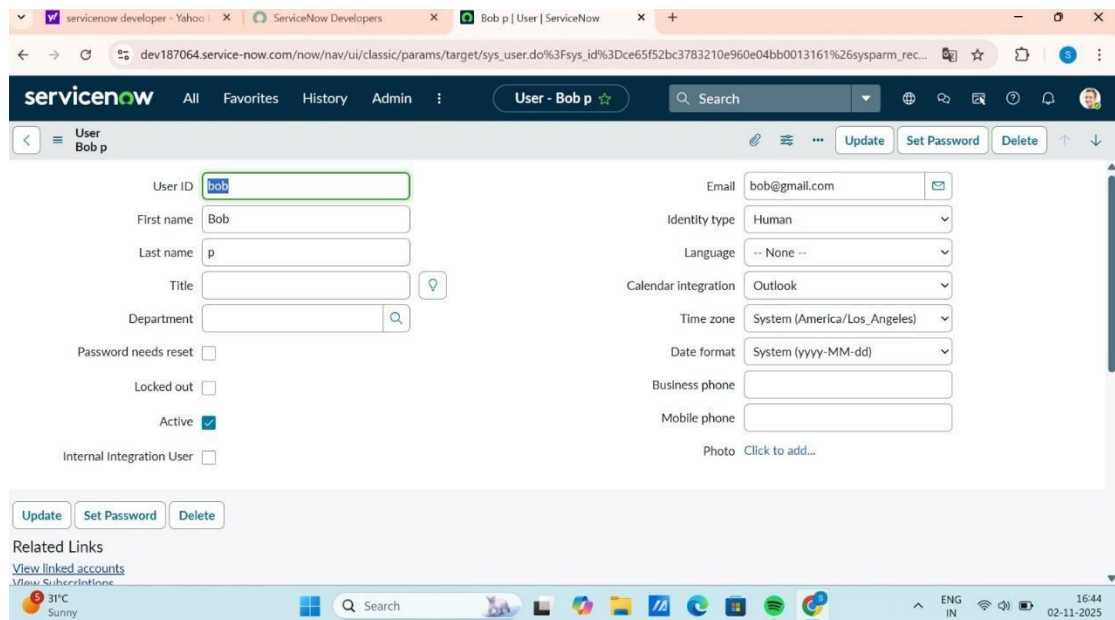
User ID: alice
First name: alice
Last name: p
Title:
Department:
Password needs reset: ☐
Locked out: ☐
Active: ☒
Internal Integration User: ☐

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...

Update Set Password Delete

Related Links
[View linked accounts](#)
[View Subscriptions](#)

5.6.2 Create User 2



The screenshot shows the ServiceNow user creation interface for a user named 'Bob p'. The form is divided into two main sections: personal information on the left and system settings on the right. The left section includes fields for User ID (Bob), First name (Bob), Last name (p), Title, and Department. It also has checkboxes for 'Password needs reset', 'Locked out', 'Active' (checked), and 'Internal Integration User'. The right section includes fields for Email (bob@gmail.com), Identity type (Human), Language (None), Calendar integration (Outlook), Time zone (System (America/Los Angeles)), Date format (System (yyyy-MM-dd)), Business phone, and Mobile phone. There is a 'Photo' field with a 'Click to add...' link. At the bottom, there are 'Update', 'Set Password', and 'Delete' buttons. Below the form, there are 'Related Links' for 'View linked accounts' and 'View Subscriptions'. The browser address bar shows the URL: dev187064.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3Dce65f52bc3783210e960e04bb0013161%26sysparm_re...

servicenow All Favorites History Admin User - Bob p Search

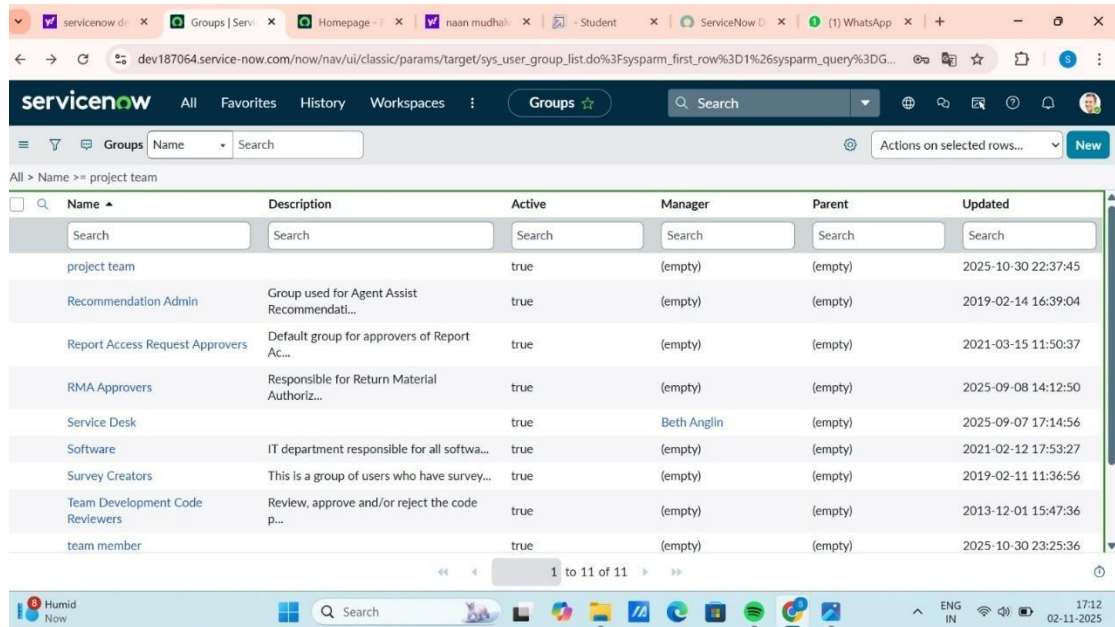
User ID: Bob
First name: Bob
Last name: p
Title:
Department:
Password needs reset: ☐
Locked out: ☐
Active: ☒
Internal Integration User: ☐

Email: bob@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...

Update Set Password Delete

Related Links
[View linked accounts](#)
[View Subscriptions](#)

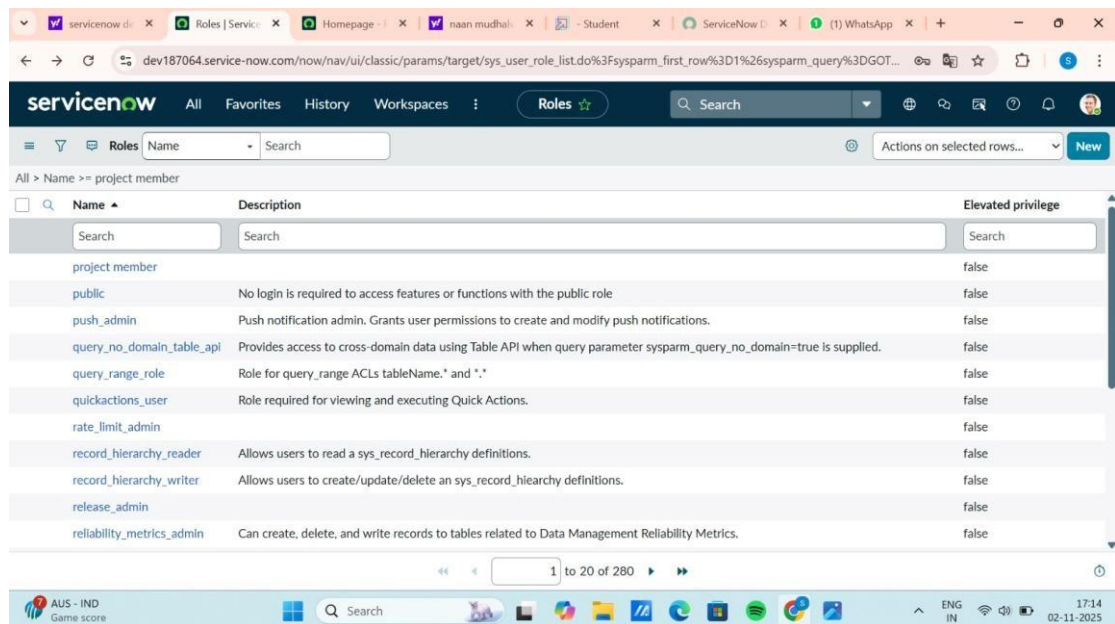
5.6.3 Create Groups



The screenshot shows the ServiceNow Groups page. The breadcrumb trail is "All > Name >= project team". The table lists various groups with columns for Name, Description, Active, Manager, Parent, and Updated. The "project team" group is highlighted.

Name	Description	Active	Manager	Parent	Updated
project team		true	(empty)	(empty)	2025-10-30 22:37:45
Recommendation Admin	Group used for Agent Assist Recommendation...	true	(empty)	(empty)	2019-02-14 16:39:04
Report Access Request Approvers	Default group for approvers of Report AC...	true	(empty)	(empty)	2021-03-15 11:50:37
RMA Approvers	Responsible for Return Material Authoriz...	true	(empty)	(empty)	2025-09-08 14:12:50
Service Desk		true	Beth Anglin	(empty)	2025-09-07 17:14:56
Software	IT department responsible for all softwa...	true	(empty)	(empty)	2021-02-12 17:53:27
Survey Creators	This is a group of users who have survey...	true	(empty)	(empty)	2019-02-11 11:36:56
Team Development Code Reviewers	Review, approve and/or reject the code p...	true	(empty)	(empty)	2013-12-01 15:47:36
team member		true	(empty)	(empty)	2025-10-30 23:25:36

5.6.4 Create Roles



The screenshot shows the ServiceNow Roles page. The breadcrumb trail is "All > Name >= project member". The table lists various roles with columns for Name, Description, and Elevated privilege. The "project member" role is highlighted.

Name	Description	Elevated privilege
project member		false
public	No login is required to access features or functions with the public role	false
push_admin	Push notification admin. Grants user permissions to create and modify push notifications.	false
query_no_domain_table_api	Provides access to cross-domain data using Table API when query parameter sysparm_query_no_domain=true is supplied.	false
query_range_role	Role for query_range ACLs tableName.* and *.*	false
quickactions_user	Role required for viewing and executing Quick Actions.	false
rate_limit_admin		false
record_hierarchy_reader	Allows users to read a sys_record_hierarchy definitions.	false
record_hierarchy_writer	Allows users to create/update/delete an sys_record_hierarchy definitions.	false
release_admin		false
reliability_metrics_admin	Can create, delete, and write records to tables related to Data Management Reliability Metrics.	false

5.6.5 Create a flow to assign operations ticket to groups

The screenshot displays the ServiceNow Workflow Studio interface. The main area shows a list of flows with columns for Name, Application, Status, Active, and Updated. The flows listed include 'Application Intake Request Flow (Deprecated)', 'Application Intake Request V2', 'Benchmark Recommendation Evaluator', 'Business process approval flow', 'Change - Cloud Infrastructure - Authorize', 'Change - Conflict Detection', 'Change - Emergency - Authorize', 'Change - Emergency - Implement', and 'Change - Emergency - Review'. The right sidebar contains sections for 'task table', 'Multi-factor Authentica...', and 'Steps', each with a 'Last updated' timestamp. The bottom of the screen shows a Windows taskbar with various application icons and system information.

Name	Application	Status	Active	Updated
Application Intake Request Flow (Deprecated)	Application Intake	Published	false	2025-10-10
Application Intake Request V2	Application Intake	Published	true	2025-10-10
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2025-09-10
Business process approval flow	Global	Published	true	2020-09-10
Change - Cloud Infrastructure - Authorize	Global	Published	true	2020-10-10
Change - Conflict Detection	Global	Published	true	2025-09-10
Change - Emergency - Authorize	Global	Published	true	2020-10-10
Change - Emergency - Implement	Global	Published	true	2020-09-10
Change - Emergency - Review	Global	Published	true	2020-10-10

task table
Last updated: 6 h. ago by System ...

Multi-factor Authentica...
Last updated: 5 months ago by Sy...

Steps
Last updated: 7 months ago by Sy...

Latest updates

- System Administrator modified task table 6 h. ago
- System Administrator modified Multi-factor Authentication 5 months ago
- System Administrator modified Steps 7 months ago
- System Administrator modified On-Call Scheduling

ZIM - AFG
Starting soon

Search

ENG IN 17:02 02-11-2025