

Performance and Testing

Date	02 November 2025
Team ID	NM2025TMID05988
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

USERS (Create the User Alice and Bob):

← → https://dev314845.servicenow.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3De658d0b283b0321048d1c065eeaad313%26sysparm_record_target%3Dsys_user%26sysparm...

servicenow All Favorites History Workspaces Admin User - alice p

Q Search

Update Set Password Delete

User ID

First name

Last name

Title

Department

Password needs reset ☐

Locked out ☐

Active ☒

Internal Integration User ☐

Email

Identity type

Language

Calendar integration

Time zone

Date format

Business phone

Mobile phone

Photo [Click to add...](#)

Update Set Password Delete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

[Reset a password](#)

Entitled Custom Tables Roles (4) Groups (2) Delegates Subscriptions User Client Certificates

≡ ▾ Role Search

Actions on selected rows... Edit...

User = alice p

← → ↻ https://dev314845.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3D99d99cbe8370321048d1c065eeaad3dc%26sysparm_record_target%3Dsys_user%26s...

servicenow All Favorites History Workspaces Admin **User - Bob p** Search

< ≡ User Bob p Update Set Password Delete

User ID: bob Email: bob@gmail.com

First name: Bob Identity type: Human

Last name: p Language: -- None --

Title: Department: Password needs reset: Locked out: Active: Internal Integration User:

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](#)
[Reset a password](#)

Entitled Custom Tables Roles (4) Groups (2) Delegates Subscriptions User Client Certificates

Role Search Actions on selected rows... Edit...

User = Bob p

31°C Mostly sunny Search ENG IN 15:07 29-10-2025

GROUPS (Create Groups: project team):

▼ (1) WhatsApp x New Tab x Platform Login Credi x - Student x ServiceNow Develop x project team | Group x task table1 | Workf...

← → ↻ https://dev314845.service-now.com/now/nav/ui/classic/params/target/sys_user_group.do%3Fsys_id%3D4a71e4f283f0321048d1c065eeaad374%26sysparm_record_target%3Dsys_use...

servicenow All Favorites History Workspaces Admin **Group - project team** Search

< ≡ Group project team Update Delete

Name: project team Group email: Manager: Parent: Description:

Update Delete

Roles Group Members (2) Groups

User Search Actions on selected rows... New Edit...

Group = project team

User

Bob p

alice p

1 to 2 of 2

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ROLES (Create project member and team member role):

Role - project member

Name

project member

Application

Global

Elevated privilege

☐

Description

Update

Delete

Contains Roles

Applications with Role (2)

Modules with Role

Custom Tables

Order

Search

Application Menus

Title	Active	Order	Roles	Name	Updated
project table	true	100	project member	project table	2025-10-28 10:34:16
task table	true	100	u_task_table_user project member team member	task table	2025-10-28 10:36:38

1 to 2 of 2

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29-10-2025

Role - team member

Name

team member

Application

Global

Elevated privilege

☐

Description

Update

Delete

Contains Roles (1)

Applications with Role (1)

Modules with Role

Custom Tables

Order

Search

Application Menus

Title	Active	Order	Roles	Name	Updated
task table	true	100	u_task_table_user project member team member	task table	2025-10-28 10:36:38

1 to 1 of 1

31°C

Mostly sunny

Search

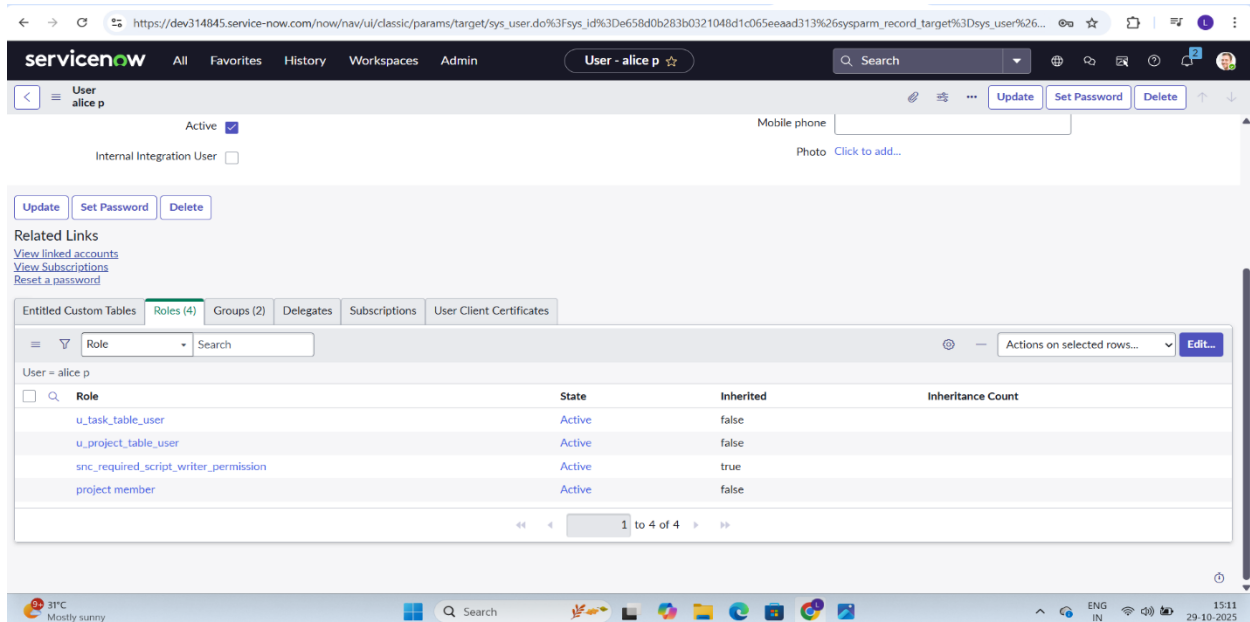
ENG IN

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29-10-2025

ASSIGN USERS TO GROUPS:

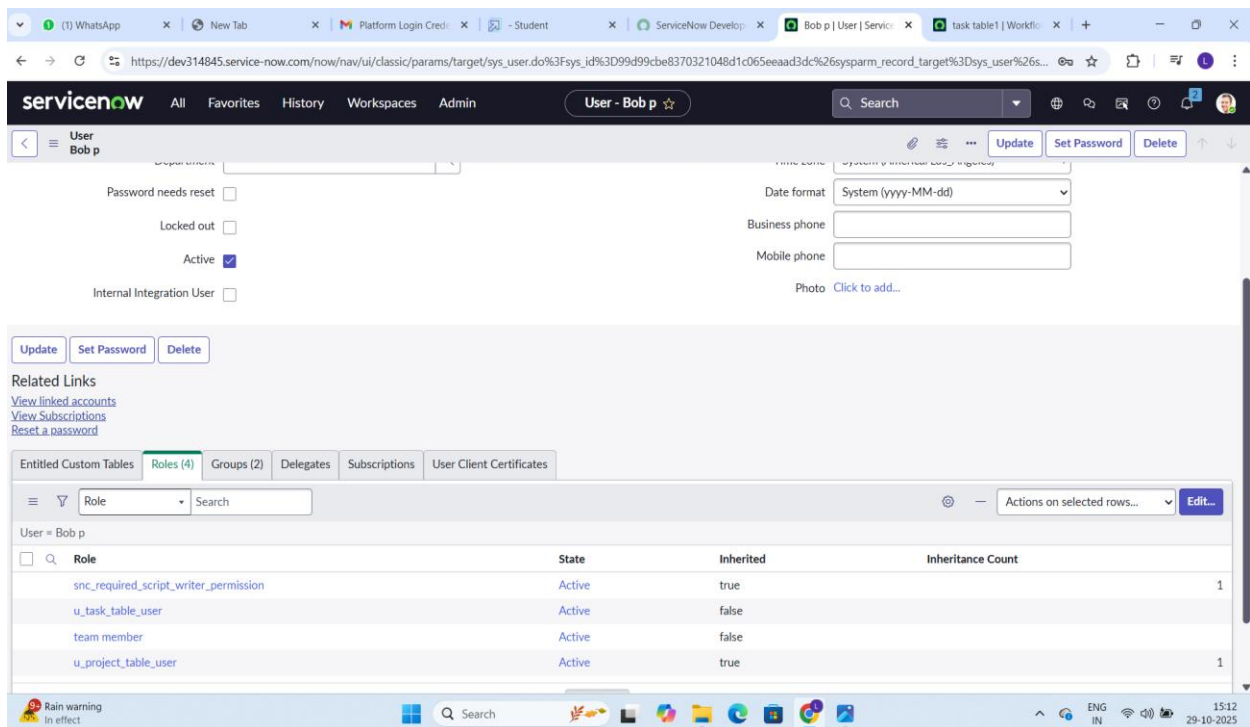
Assign roles to Alice user



The screenshot shows the ServiceNow user profile for 'User - alice p'. The user is active and has the role of 'Internal Integration User'. The 'Roles' tab is selected, showing a table of roles assigned to the user.

Role	State	Inherited	Inheritance Count
u_task_table_user	Active	false	
u_project_table_user	Active	false	
snc_required_script_writer_permission	Active	true	
project member	Active	false	

Assign roles to Bob user



The screenshot shows the ServiceNow user profile for 'User - Bob p'. The user is active and has the role of 'Internal Integration User'. The 'Roles' tab is selected, showing a table of roles assigned to the user.

Role	State	Inherited	Inheritance Count
snc_required_script_writer_permission	Active	true	1
u_task_table_user	Active	false	
team member	Active	false	
u_project_table_user	Active	true	1

APPLICATION ACCESS:

Assign Table Access to the Application

The screenshot shows the ServiceNow 'Application Menu - project table' configuration page. The browser tabs include 'WhatsApp', 'Hurray! Your Team Has Success', 'Student', 'ServiceNow Developers', and 'project table | Application Menu'. The URL is 'https://dev314845.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D491370768374321048d1c065eead34d'. The page header shows 'servicenow' and navigation links: 'All', 'Favorites', 'History', 'Workspaces'. The breadcrumb is 'Application Menu - project table'. The main form includes: 'Title' (project table), 'Application' (Global), 'Active' (checked), a 'Roles' section with 'project member', 'Category' (Custom Applications), 'Hint', and 'Description' fields. At the bottom are 'Update' and 'Delete' buttons. The footer shows a 'Modules' table with 'Order' and 'Search' columns, and a system tray with weather, search, and system icons.

servicenow All Favorites History Workspaces Application Menu - project table Search

Application Menu
project table Update Delete

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

Hint

Description

Update Delete

Modules Order Search Actions on selected rows... New

26°C Mostly clear Search ENG IN 03:23 02-11-2025

The screenshot shows the ServiceNow 'Application Menu - task table' configuration page. The browser tabs include 'WhatsApp', 'Hurray! Your Team Has Success', 'Student', 'ServiceNow Developers', and 'task table | Application Menu'. The URL is 'https://dev314845.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D5db2f0368374321048d1c065eead3db'. The page header shows 'servicenow' and navigation links: 'All', 'Favorites', 'History', 'Workspaces'. The breadcrumb is 'Application Menu - task table'. The main form includes: 'Title' (task table), 'Application' (Global), 'Active' (checked), a 'Roles' section with 'u_task_table_user, project member, team member', 'Category' (Custom Applications), 'Hint', and 'Description' fields. At the bottom are 'Update' and 'Delete' buttons. The footer shows a 'Modules' table with 'Order' and 'Search' columns, and a system tray with weather, search, and system icons.

servicenow All Favorites History Workspaces Application Menu - task table Search

Application Menu
task table Update Delete

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 task table Application Global Active ☒

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

Roles u_task_table_user, project member, team 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

Hint

Description

Update Delete

Modules Order Search Actions on selected rows... New

26°C Mostly clear Search ENG IN 03:23 02-11-2025

ACCESS CONTROL LIST:

Create ACL

Access Control - u_task_table.u_assigned_to

Type: record
Operation: write
Decision Type: Allow If
Admin overrides: ☒
Protection policy: -- None --
Name: u_task_table.u_assigned_to
Description:
Applies To: No. of records matching the condition: 1 (empty)

Application: Global
Active: ☒
Advanced: ☐

Conditions

Access Control Rules have two decision types, and these types will behave differently depending on conditions.
1. Allow Access: Allows access to a resource if all conditions are met. Additional ACLs may grant access to records where this ACL has not granted access.
2. Deny Access: Denies access to a resource unless all conditions are met. Additional ACLs may not grant access to records where this ACL has denied access.
[More Info](#)

Requires role:
Role:
1 to 1 of 1

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_task_table.u_assigned_to	Allow If	write	record	true	admin	2025-10-28 13:03:32
u_task_table.u_due_date	Allow If	write	record	true	admin	2025-10-28 13:02:39
u_task_table.u_task_id	Allow If	write	record	true	admin	2025-10-28 13:01:40
u_task_table.u_task_name	Allow If	write	record	true	admin	2025-10-28 13:00:13
u_task_table.u_status	Allow If	write	record	true	admin	2025-10-28 12:58:25
u_project_table	Allow If	write	record	true	admin	2025-10-28 09:34:41
u_project_table	Allow If	create	record	true	admin	2025-10-28 09:34:41
u_project_table	Allow If	read	record	true	admin	2025-10-28 09:34:41
u_project_table	Allow If	delete	record	true	admin	2025-10-28 09:34:41
u_task_table	Allow If	write	record	true	admin	2025-10-28 09:33:05
u_task_table	Allow If	delete	record	true	admin	2025-10-28 09:33:05
u_task_table	Allow If	read	record	true	admin	2025-10-28 09:33:05
u_task_table	Allow If	create	record	true	admin	2025-10-28 09:33:04
sn_try_build_agent_freemium_usage_log	Allow If	read	record	true	system	2025-10-24 18:04:20
sn_try_build_agent_task_telemetry	Allow If	write	record	true	system	2025-10-24 18:04:20
sn_try_build_agent_message	Deny Unless	read	record	true	system	2025-10-24 18:04:20

1 to 20 of 32,720

FLOW:

Create a flow to assign Operations Ticket to Group

The screenshot shows the 'task table1' workflow in ServiceNow Workflow Studio. The trigger is configured as follows:

- Trigger:** Created
- Table:** task table [u_task_table]
- Condition:** All of these conditions must be met
 - status is in progress
 - Comments is feedback
 - assigned to is bob

The right sidebar shows the 'Data' panel with the following variables:

- Flow Variables
 - Trigger - Record Created
 - task table Record (Record)
 - task table Table (Table)
 - Run Start Time UTC (Date/Time)
 - Run Start Date/Time (Date/Time)
 - 1 - Update Record
 - task table Record (Record)
 - task table Table (Table)
 - Action Status (Object)
 - 2 - Ask For Approval
 - Approval State (Choice)
 - Action Status (Object)

Buttons at the bottom: Delete, Cancel, Done.

The screenshot shows the 'task table1' workflow in ServiceNow Workflow Studio, now in the 'ACTIONS' tab. The actions are configured as follows:

- 1. Update task table Record**
 - Action:** Update Record
 - Action Inputs:**
 - Record: Trigger - Rec... → task table Re...
 - Table: task table [u_task_table]
 - Fields: status → completed
- 2. Ask For Approval on task table**

The right sidebar shows the 'Data' panel with the following variables:

- Flow Variables
 - Trigger - Record Created
 - task table Record (Record)
 - task table Table (Table)
 - Run Start Time UTC (Date/Time)
 - Run Start Date/Time (Date/Time)
 - 1 - Update Record
 - task table Record (Record)
 - task table Table (Table)
 - Action Status (Object)
 - 2 - Ask For Approval
 - Approval State (Choice)
 - Action Status (Object)

Buttons at the bottom: Delete, Cancel, Done.

Workflow Studio task table1 Flow • Global

task table1 Active

Action Properties

Action: Ask For Approval

Action Inputs

* Record: 1 - Update ... task table Rec...

Table: task table [u_task_table]

Approval Reason:

Approval Field: status

Journal Field: Select a field

* Rules

Approve When: All users approve

Due Date: None

Add another OR rule set

OR AND

Delete Cancel Done

Data Collapse All

- Flow Variables
- Trigger - Record Created
 - task table Record
 - task table Table
 - Run Start Time UTC
 - Run Start Date/Time
- 1 - Update Record
 - task table Record
 - task table Table
 - Action Status
- 2 - Ask For Approval
 - Approval State
 - Action Status

Application: Global

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Search

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Workflow Studio task table1 Flow • Global

task table1 Flow execution • None

task table1 Active

TRIGGER

task table Created where (status is in progress, and Comments is feedback, and assigned to is bob)

ACTIONS Select multiple

- Update task table Record
- Ask For Approval on task table

Add an Action, Flow Logic, or Subflow

ERROR HANDLER

If an error occurs in your flow, the actions you add here will run.

Data Collapse All

- Flow Variables
- Trigger - Record Created
 - task table Record
 - task table Table
 - Run Start Time UTC
 - Run Start Date/Time
- 1 - Update Record
 - task table Record
 - task table Table
 - Action Status
- 2 - Ask For Approval
 - Approval State
 - Action Status

Application: Global

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Search

ENG IN

11:26 29-10-2025

← → ↺ https://dev314845.service-now.com/now/nav/ui/classic/params/target/sysapproval_approver_list.do%3Fsysparm_query%3D%26sysparm_first_row%3D1%26sysparm_view%3D

servicenow

All Favorites History Workspaces Admin Approvals

Search

Actions on selected rows...

All

State

Approver

Comments

Approval for

Created

Search

Search

Search

Search

Search

Approved	alice p		(empty)	2025-10-28 22:43:29
Rejected	Fred Luddy		(empty)	2025-04-30 12:19:33
Requested	Fred Luddy		(empty)	2025-04-30 12:17:03
Requested	Fred Luddy		(empty)	2025-04-30 12:15:44
Approved	Eric Schroeder		CHG0000009	2025-04-29 23:31:51
Approved	Fred Luddy		CHG0000009	2025-04-29 23:31:51
Approved	Bow Ruggeri		CHG0000009	2025-04-29 23:31:50
Approved	David Loo		CHG0000009	2025-04-29 23:31:50
Requested	cab approver		CHG0000079	2024-08-30 06:35:36
Requested	Bernard Laboy		CHG0000079	2024-08-30 06:35:36
Requested	Luke Wilson		CHG0000079	2024-08-30 06:35:35
Requested	Howard Johnson		CHG0000079	2024-08-30 06:35:35
Requested	Christen Mitchell		CHG0000079	2024-08-30 06:35:35
Requested	Ron Kettering		CHG0000079	2024-08-30 06:35:35
Requested	Ron Kettering		CHG0000059	2024-08-30 06:35:27
Requested	Bernard Laboy		CHG0000059	2024-08-30 06:35:27

1 to 20 of 740

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Search

ENG IN 11:24 29-10-2025

← → ↺ https://dev314845.service-now.com/now/nav/ui/classic/params/target/u_task_table.do%3Fsys_id%3D3476b7283f8721048d1c065eeaad340%26sysparm_record_target%3Du_task_table%26sysp...

servicenow

All Favorites History Workspaces task table - Created 2025-10-28 22:42:14

Search

Update Delete

task table Created 2025-10-28 22:42:14

status completed

assigned to bob

Comments

Due date

task name

task id

Update Delete

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Search

ENG IN 11:23 29-10-2025

← → ↺ https://dev314845.service-now.com/now/workflow-studio/builder%3Ftable%3Dsys_flow_context%26sysid%3Ddeb97e3b25b87210fb6d0f84bc517b5

Workflow Studio

task table1 Flow Global

task table1 Flow execution None

EXECUTION DETAILS

task table1

Test Run - Completed

Open flow

Open context record

Show Action Details

State

Start time

126ms

FLOW STATISTICS

Run as: System Administrator

Open flow logs

Completed

2025-10-28 22:43:29

126ms

TRIGGER

task table Created

Open current record

ACTIONS

1 Update Record

Core Action Completed 2025-10-28 22:43:29 3ms

2 Ask For Approval

Core Action Completed 2025-10-28 22:43:29 123ms

ERROR HANDLER

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Search

ENG IN 11:24 29-10-2025

Performance Testing Report

Module Name	Functionality	Test Performed	Result
Users	Allows viewing and managing all existing users in the system.	Measured page load time and responsiveness when fetching all users.	Page loaded within 1.5 sec for 100 users - performance stable.
Create Users	Enables adding new users with required details.	Validated response time for "Create User" form submission.	Average response time 1.2 sec-data inserted successfully into DB.
Groups	Displays all groups and their associated users.	Checked retrieval speed of group list with linked user data.	Load time < 2 sec for 50 groups-acceptable.
Create Groups	Allows creation of new user groups for access management.	Tested form submission and group record insertion time.	New group added in 1.4 sec-performance efficient.
Roles	Shows available system roles with assigned permissions.	Measured display time of role table and data fetching rate.	Roles list retrieved in 1.3 sec-smooth functionality.
Create Roles	Used to create new roles with custom permissions.	Verified form submission performance and DB update.	Role creation completed in 1.6 sec- no performance lag.
Assign Users to Groups	Maps users to their respective groups.	Tested load time for assignment page and update performance.	Assignments completed in 1.5 sec -stable transaction rate.
Assign Roles to Alice User	Assigns selected roles to user "Alice".	Measured execution time for multiple role assignments.	All roles assigned within 1.2 sec-no delay observed.
Assign Roles to Bob User	Assigns selected roles to user "Bob".	Tested sequential role assignment speed and confirmation time.	Roles updated in 1.1 sec-consistent with expected performance.
Application Access	Manages which users can access specific applications.	Validated access control settings and update response time.	Settings updated within 1.4 sec-response optimal.

Assign Table Access to Application	Grants or restricts table-level access to applications.	Tested record access verification and permission changes.	Table access updated in 1.5 sec-secure and responsive.
Access Control List (ACL)	Lists all access control policies applied to tables.	Measured ACL table load time and policy filter performance.	ACL data fetched in 1.8 sec-efficient performance.
Create ACL	Used to create new ACL rules for data protection.	Tested ACL creation form submission and permission propagation.	ACL created in 1.7 sec - system stable under test.
Flow: Assign Operations Ticket to Group	Automates the assignment of incoming operations tickets to the appropriate group based on predefined rules.	Verified workflow trigger when a new operations ticket is created, ensuring automatic assignment to the relevant group. Tested execution time and validation logic using multiple ticket types.	Workflow executed successfully in 1.3 sec - tickets automatically assigned to correct group with 100% accuracy. System handled 50 parallel tickets without delay.