

OPTIMIZING USER, GROUP, AND ROLE MANAGEMENT WITH ACCESS CONTROL AND WORKFLOWS

Team ID: NM2025TMID02823

Team Size: 5

Team Leader: Golda M

Team member: Iyyappan K

Team member: Jaslin Mary R S

Team member: JEBA Jeneesha J

Team member: Jasmine Rusha D

AIM:

To automate ServiceNow administration by optimizing user, group, and role management with secure access controls and workflows.

PROBLEM STATEMENT:

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), efficient task management and accountability throughout the project lifecycle are crucial. The existing system lacks:

- Clear role definitions
- Proper access controls
- Structured workflows

PROJECT OBJECTIVES:

- Define and manage Users, Groups, and Roles in ServiceNow.
- Enable controlled access permissions through ACLs.
- Create a custom project table to track project-related tasks.
- Assign users to groups and roles based on responsibilities.
- Implement application access and workflows for smooth task management.
- Ensure accountability by using Flow Designer to automate task assignments.

PROCEDURES:**Step 1: Create Users**

1. Login to **ServiceNow** with an admin account.
2. In the left navigation filter, type **Users**.
3. Select: All → Users (System Security → Users)
4. Click on **New**.

5. Fill in user details:

- **User ID:** alice.p
- **First Name:** Alice
- **Last Name:** P
- **Email:**alice@example.com
- **Password:** (set as per policy)

6. Click **Submit**.

Repeat the process to create another user:

- **User ID:** bob.p
- **First Name:** Bob
- **Last Name:** P
- **Email:**bob@example.com
- **Password:** (set as per policy)

7. Verify both users are listed under **User records**.

Step 2: Create Groups

1. In the navigation filter, type **Groups**.
2. Navigate: **All** → **Groups (System Security → Groups)**.
3. Click **New**.
4. Enter details:
 - **Name:** Project Team Group
 - **Description:** Group for project-related tasks and access.
5. Click **Submit**.
6. Group is now available under **System Security** → **Groups**.

Step 3: Create Roles

1. In the navigation filter, type **Roles**.
2. Navigate: **All → Roles (System Security → Roles)**.
3. Click **New**.
4. Create roles one by one:
 - **Project Manager Role** (Full control on Project Table, Task Table).
 - **Team Member Role** (Basic access to Project Table).
 - **u_project_table Role** (specific access to project table).
 - **u_task_table Role** (specific access to task table).
5. Save each role by clicking **Submit**.

Step 4: Create table

1. In the navigation filter, type **Tables**.
2. Navigate: **All → Tables (System Definition → Tables)**.
3. Click **New**.
4. Fill in details:
 - **Label:** Project Table
 - **Name:** u_project_table (auto-generated)
 - **Create Module:** checked
 - **Create Mobile Module:** checked
5. Under **New Menu Name**, enter: Project Table.
6. Define **Table Columns**:
 - Task Name (String)
 - Assigned To (Reference → User)
 - Status (Choice → Open, In Progress, Closed)
 - Priority (Integer)
7. Click **Submit**.

Step 5: Assign Users to Team

1. Navigate: **All** → **Groups** → **Project Team Group**.
2. Under the group record, scroll to the **Group Members** tab.
3. Click **Edit**.
4. Select **Alice P** and **Bob P** from the available users list.
5. Move them to the **Selected** list.
6. Click **Save**. **Step**

6: Assign Roles Assign

Roles to Alice

1. Navigate: **All** → **Users (System Security → Users)**.
2. Open the record for **Alice P**.
3. Scroll to the **Roles** tab.
4. Click **Edit**.
5. Add the following roles:
 - **Project Manager Role**
 - **u_project_table**
 - **u_task_table**
6. Move them to the **Selected** list.
7. Click **Save** and then **Update** the user record.

Assign Roles to Bob

1. Navigate: **All** → **Users (System Security → Users)**.
2. Open the record for **Bob P**.
3. Scroll to the **Roles** tab.
4. Click **Edit**.
5. Add the following roles:
 - **Team Member Role**
 - **u_project_table** (if limited access needed)
6. Move them to the **Selected** list.
7. Click **Save** and **Update** the user record.

8. (Optional) Use **Impersonate User** → **Bob** to verify access

Step 7: Assign Table Access to Application

1. When the **Project Table** was created, ServiceNow automatically generated an **Application and Module**.
2. Navigate: All → Application Menus → Project Table Application.
3. Open the module and click **Edit**.
4. Assign the following roles:
 - **Project Member Role** → For full access.
5. Save the application module.

Configure Task Table Application Access

1. Navigate: **All** → **Application Menus** → **Task Table Application**.
2. Open the module and click **Edit**.
3. Assign roles:
 - Project Member Role
 - **Team Member Role**
4. Save the application module.

Step 8: Create ACL

1. Navigate: All → Access Control (ACL) (System Security → Access Control).
2. Click **Elevate Role** (choose security_admin).
3. Click **New**.
4. Define ACL for the **Project Table**:
 - **Type:** Table.None / Table.Field
 - **Operation:** read, write, delete
 - **Role(s):** Assign Project Manager Role and/or Team Member Role
5. Save the ACL.
6. Repeat the process for the **Task Table**.

7. Verify by impersonating users (Alice and Bob) to ensure access is restricted correctly.

Step 9: Create a Flow to Assign Operations Ticket to Group

1. Navigate: All → Flow Designer (Process Automation → Flow Designer).
2. Click **New** → **Flow**.
3. In **Flow Properties**:
 - **Name:** Task Table Flow
 - **Application:** Global
 - **Table:** Task Table
 - **Trigger:** When a record is created

Build The Flow

1. Add **Action** → *Update Record*.
2. Set Assignment Group = Project Team Group.
3. Optionally add:
 - **Notification** to group members when a new task is assigned.
 - **Approval Step** for Project Manager (Alice).
4. Save the Flow.
5. Activate the Flow.

Testing

- Impersonate Bob → Create a new Task record.
- Verify the task is automatically assigned to **Project Team Group**.
- Check notification/assignment workflow.

OUTPUT:

servicenow

AllFavoritesHistoryWorkspacesAdmin

Users

Search

Search

Actions on selected rows...

New

All

User ID

Name

Email

Active

Created

Updated

Search

Search

Search

Search

Search

Search

bob	Bob p	bob@gmail.com	true	2025-09-19 22:20:25	2025-09-19 22:20:25
alice	alice p	alice@gmail.com	true	2025-09-19 22:19:15	2025-09-19 22:19:15
aes.creator	Creator User		true	2025-09-16 12:51:55	2025-09-19 21:17:09
admin	System Administrator	admin@example.com	true	2007-07-03 11:48:47	2025-09-19 21:17:09
margot.arenburg	Margot Arenburg	margot.arenburg@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
jannie.bowditch	Jannie Bowditch	jannie.bowditch@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
bette.barcelona	Bette Barcelona	bette.barcelona@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
jonathon.waldall	Jonathon Waldall	jonathon.waldall@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
deshawn.inafuku	Deshawn Inafuku	deshawn.inafuku@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
nickolas.khosravi	Nickolas Khosravi	nickolas.khosravi@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
lizzie.torregrossa	Lizzie Torregrossa	lizzie.torregrossa@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
garfield.lijewski	Garfield Lijewski	garfield.lijewski@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
bernard.laboy	Bernard Laboy	bernard.laboy@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
bart.hachey	Bart Hachey	bart.hachey@example.com	true	2012-02-17 19:04:52	2025-09-16 12:23:30
kasey.nguyen	Kasey Nguyen	kasey.nguyen@example.com	true	2012-02-17 19:04:49	2025-09-16 12:23:30
kris.persson	Kris Persson	kris.persson@example.com	true	2012-02-17 19:04:49	2025-09-16 12:23:30

1 to 20 of 630

dev222080.servicenow.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3D871c6a1683003210496c6260cead395%26sysparm_record_target%3Dsys_user%2...

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AllFavoritesHistoryWorkspacesAdmin

User - Bob p

Search

UpdateSet PasswordDelete

User ID

First name

Last name

Title

Department

Password needs reset

Locked out

Active

Web service access only

Internal Integration User

Email

Language

Calendar integration

Time zone

Date format

Business phone

Mobile phone

Photo

UpdateSet PasswordDelete

Related Links

View linked accounts

View Subscriptions

Reset a password

Entitled Custom Tables

Roles (2)

Groups (1)

Delegates

Subscriptions

User Client Certificates

Role

State

Inherited

Inheritance Count

team member

Active

false

u_task_table_user

Active

false

1 to 2 of 2

35°C

Partly sunny

Search

ENG

IN

15:58

20-09-2025

Optimizing user group and role

Student - Skill Wallet

ServiceNow user management

ServiceNow Developers

alice p | User | ServiceNow

dev222080.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3Db19ba65683403210496c6260ceaad3e4%26sysparm_record_target%3D...

servicenowAllFavoritesHistoryWorkspacesAdminUser - alice p

User IDalice

First namealice

Last namep

Title

Department

Password needs reset

Locked out

Active

Web service access only

Internal Integration User

Emailalice@gmail.com

Language-- None --

Calendar integrationOutlook

Time zoneSystem (America/Los_Angeles)

Date formatSystem (yyyy-MM-dd)

Business phone

Mobile phone

PhotoClick to add...

Update

Set Password

Delete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

Optimizing user group and role

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ServiceNow user management

ServiceNow Developers

alice p | User | ServiceNow

dev222080.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3Db19ba65683403210496c6260ceaad3e4%26sysparm_record_target%3Dsys_us...

servicenowAllFavoritesHistoryWorkspacesAdminUser - alice p

User IDalice

First namealice

Last namep

Title

Department

Password needs reset

Locked out

Active

Web service access only

Internal Integration User

Emailalice@gmail.com

Language-- None --

Calendar integrationOutlook

Time zoneSystem (America/Los_Angeles)

Date formatSystem (yyyy-MM-dd)

Business phone

Mobile phone

PhotoClick 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

Role

Search

Actions on selected rows...

Edit...

User - alice p

Role	State	Inherited	Inheritance Count
u_project_table_user	Active	false	
project_member	Active	false	
u_task_table_user	Active	false	

Optimizing user group and role | Student - Skill Wallet | ServiceNow user management | ServiceNow Developers | project team | Group | ServiceNow | dev222080.service-now.com/now/nav/ui/classic/params/target/sys_user_group.do%3Fsys_id%3Db89c6a9683403210496c6260ceaad393%26sysparm_record_target%3...

Group - project team

Name: project team Group email: Manager: Description:

Update Delete

Roles Group Members (2) Groups

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

User
alice.p
Bob.p

1 to 2 of 2

Role - project member

Name: project member Application: Global Elevated privilege: Description:

Update Delete

Related Links Run Point Scan

Contains Roles Applications with Role (2) Modules with Role Custom Tables

Order Search Actions on selected rows... New

Title	Active	Order	Roles	Name	Updated
task table	true	100	u_task_table_user project member team member	task table	2025-09-19 23:20:02
project table	true	100	u_project_table_user project member	project table	2025-09-19 23:18:24

1 to 2 of 2

35°C Partly sunny Search ENG IN 16:00 20-09-2025

Role - team member

Name: team member Application: Global Elevated privilege: Description:

Update Delete

Related Links Run Point Scan

Contains Roles Applications with Role (1) Modules with Role Custom Tables

Order Search Actions on selected rows... New

Title	Active	Order	Roles	Name	Updated
task table	true	100	u_task_table_user project member team member	task table	2025-09-19 23:20:02

1 to 1 of 1

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Table - project table

Search

Table project table

* Labelproject table

ApplicationGlobal

* Nameu_project_table

ColumnsControlsApplication Access

Table Columnsfor textSearch

1 to 13 of 13New

Column label	Type	Reference	Max length	Default value	Display
status	Choice	(empty)	40		false
Updated	Date/Time	(empty)	40		false
project name	String	(empty)	40		false
Created by	String	(empty)	40		false
start date	Date	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
description	String	(empty)	40		false
end date	Date	(empty)	40		false
Updated by	String	(empty)	40		false
project id	Integer	(empty)	40		false
Updates	Integer	(empty)	40		false
project manager	String	(empty)	40		false
Insert a new row...					

Table table

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Labeltask table

ApplicationGlobal

* Nameu_task_table

ColumnsControlsApplication Access

Table Columnsfor textSearch

1 to 12 of 12New

Column label	Type	Reference	Max length	Default value	Display
Created by	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Comments	String	(empty)	40		false
status	Choice	(empty)	40		false
assigned to	String	(empty)	40		false
Updated by	String	(empty)	40		false
task name	String	(empty)	40		false
Updates	Integer	(empty)	40		false
task id	Integer	(empty)	40		false
due date	Date	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Insert a new row...					

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Application Menu - project table

Search

Application Menu project table

* Titleproject table

ApplicationGlobal

Active

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

Rolesu_project_table_user, project member

Specifies the [menu category](#), which defines the navigation menu style. The default value is Custom Applications.

CategoryCustom Applications

The text that appears in a tooltip when a user points to this application menu

Hint

Description

UpdateDelete

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Application Menu - task table

Search

Application Menu task table

UpdateDelete

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

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Access Controls

Search

Access Controls

Updated

Search

Actions on selected rows...

All

Name	Decision Type	Operation	Type	Active	Updated by	Updated
Search	Search	Search	Search	Search	Search	Search
u_task_table.u_task_name	Allow If	write	record	true	admin	2025-09-19 23:39:16
u_task_table.u_task_id	Allow If	write	record	true	admin	2025-09-19 23:37:26
u_task_table.u_due_date	Allow If	write	record	true	admin	2025-09-19 23:36:23
u_task_table.u_assigned_to	Allow If	write	record	true	admin	2025-09-19 23:33:32
u_task_table.u_status	Allow If	write	record	true	admin	2025-09-19 23:30:00
u_task_table	Allow If	write	record	true	admin	2025-09-19 22:51:09
u_task_table	Allow If	create	record	true	admin	2025-09-19 22:51:09
u_task_table	Allow If	delete	record	true	admin	2025-09-19 22:51:09
u_project_table	Allow If	read	record	true	admin	2025-09-19 22:51:09
u_project_table	Allow If	read	record	true	admin	2025-09-19 22:41:03
u_project_table	Allow If	write	record	true	admin	2025-09-19 22:41:03
u_project_table	Allow If	delete	record	true	admin	2025-09-19 22:41:03
u_project_table	Allow If	create	record	true	admin	2025-09-19 22:41:03

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Access Control - u_task_table.u_status

Search

Access Control u_task_table.u_status

u_task_table.u_status

Application

Global

Active

☒

Advanced

☐

Type

record

Operation

write

Decision Type

Allow If

Admin overrides

☒

Protection policy

--None--

Name

u_task_table.u_status

Description

Applies To

No. of records matching the condition: 0 (empty)

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.
2. Deny Access: Denies access to a resource unless all conditions are met.
[More Info](#)

Requires role

1 to 2 of 2

Role

team member

u_task_table.user

Security Attribute Condition

Local or Existing

Local

Workflow Studio

task table

task table

Active

TestDeactivateActivateSave

TRIGGER

task table Created where (status is in progress 2 and Comments is feedback, and assigned to is bob)

Trigger: Created

Trigger: Created

* Table task table [u_task_table]

Condition All of these conditions must be met

status is in progress 2

Comments is feedback

assigned to is bob

New Criteria

Advanced Options

DeleteCancelDone

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

Workflow Studio

task table

task table

Active

TestDeactivateActivateSave

2 Ask For Approval

Action Ask For Approval

* Record Trigger - Rec... task table Re...

* Table task table [u_task_table]

Approval Field status

Journal Field Select a field

* Rules

Approve

When:

All users approve

alice p X

Due Date None

Add another OR rule set

DeleteCancelDone

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

Workflow Studio

task table

task table

Active

TestDeactivateActivateSave

task table Created where (status is in progress 2, and Comments is feedback, and assigned to is bob)

ACTIONS Select multiple

1 Update task table Record

Action Update Record

* Record Trigger - Rec... task table Re...

* Table task table [u_task_table]

* Fields status completed

+ Add field value

DeleteCancelDone

2 Ask For Approval

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

Status: Published

Application: Global

Project on userServiceNow DevServiceNowtask table | WorkCreated 2024-10-22 22:25:18ChatGPTNew Tab

dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6fead3bb%26sysparm_record_target%3Du_task_t...

task table 2 - Created 2024-10-22 22:25:18

task idtask namestatuscompletedassigned tobobcommentsdue date

UpdateDelete

Activate Windows
Go to Settings to activate Windows.

Project on userServiceNow DevServiceNowtask table | WorkApprovals | ServiceNowChatGPTNew Tab

dev196626.service-now.com/now/nav/ui/classic/params/target/sysapproval_approver_list.do%3Fsysparm_query%3D%26sysparm_first_row%3D1%26sysparm_view%3D

Approvals

Created

Search

Actions on selected rows...

State	Approver	Comments	Approval for	Created
Search	Search	Search	Search	Search
Approved	alice p		(empty)	2024-10-22 22:26:19
Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
Requested	Fred Luddy		(empty)	2024-09-01 12:17:03
Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
Requested	Howard Johnson		CHG0000096	2024-09-01 06:15:29
Requested	Ron Kettering		CHG0000096	2024-09-01 06:15:29
Requested	Luke Wilson		CHG0000096	2024-09-01 06:15:29
Requested	Christen Mitchell		CHG0000096	2024-09-01 06:15:29
Requested	Bernard Laboy		CHG0000096	2024-09-01 06:15:29
Requested	Howard Johnson		CHG0000095	2024-09-01 06:15:25
Requested	Ron Kettering		CHG0000095	2024-09-01 06:15:25
Requested	Luke Wilson		CHG0000095	2024-09-01 06:15:25
Requested	Christen Mitchell		CHG0000095	2024-09-01 06:15:25
Requested	Bernard Laboy		CHG0000095	2024-09-01 06:15:25

1 to 20 of 664

Activate Windows
Go to Settings to activate Windows.

CONCLUSION:

This project successfully demonstrated the optimization of user, group, and role management in ServiceNow by implementing access controls and automated workflows. With Alice and Bob having clearly defined roles, access permissions, and structured task assignments, the project team can now operate with clarity, accountability, and efficiency throughout the project lifecycle.