

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

Team ID: NM2025TMID18673

Team Size: 5

Team Leader: SANGAVI S

Team member: OLYBA PRIYADHARSHINI M D

Team member: AJITH E

Team member: VELUKUMAR M

Team member: MAHESHWARAN S

Problem Statement:

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there is a need to efficiently manage project tasks and ensure accountability throughout the project lifecycle. The current system lacks clear role definitions, access controls, and a structured workflow, leading to confusion regarding task assignments and progress tracking.

Objective:

- To design and implement efficient user, group, and role management in ServiceNow.
- To configure access control lists (ACLs) ensuring secure and role-based access.
- To automate workflows using Flow Designer for task assignment and approvals.
- To create and manage custom tables, applications, and modules for project tracking.
- To assign users to groups and roles, ensuring proper segregation of duties.
- To streamline application access and permissions for enhanced security.
- To demonstrate practical knowledge of ServiceNow platform administration.

Skills:

- ServiceNow platform administration and navigation.
- User, group, and role creation and management.
- Access Control List (ACL) configuration and security handling.
- Table, module, and application creation in ServiceNow.
- Workflow automation using Flow Designer.
- Role-based access implementation and testing (impersonation).
- Problem-solving and troubleshooting within ServiceNow.
- Team collaboration and project execution.

TASK INITIATION

Milestones 1 : Users

Activity 1: Create Users

1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit

ServiceNow User Profile Page for 'User - alice p'.

Fields and values:

- User ID: Alice
- First name: alice
- Last name: p
- Title:
- Department:
- Email: alice@gmail.com
- Language: -- None --
- Calendar integration: Outlook
- Time zone: System (America/Los Angeles)
- Date format: System (yyyy-MM-dd)
- Business phone:
- Mobile phone:

Settings:

- Password needs reset: ☐
- Locked out: ☐
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

Buttons: Update, Set Password, Delete

Related Links:

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

Entitled Custom Tables:

- Roles (1)
- Groups (1)
- Delegates
- Subscriptions
- User Client Certificates

Create one more user:

7. Create another user with the following details

8. Click on submit

ServiceNow User Profile Page for 'User - bob p'.

Fields and values:

- User ID: Bob
- First name: bob
- Last name: p
- Title:
- Department:
- Email: bob@gmail.com
- Language: -- None --
- Calendar integration: Outlook
- Time zone: System (America/Los Angeles)
- Date format: System (yyyy-MM-dd)
- Business phone:
- Mobile phone:

Settings:

- Password needs reset: ☐
- Locked out: ☐
- Active: ☒
- Web service access only: ☐
- Internal Integration User: ☐

Buttons: Update, Set Password, Delete

Related Links:

- [View linked accounts](#)
- [View Subscriptions](#)
- [Reset a password](#)

Entitled Custom Tables:

- Roles (2)
- Groups (1)
- Delegates
- Subscriptions
- User Client Certificates

Milestone 2 :

Groups Activity 1: Create Groups

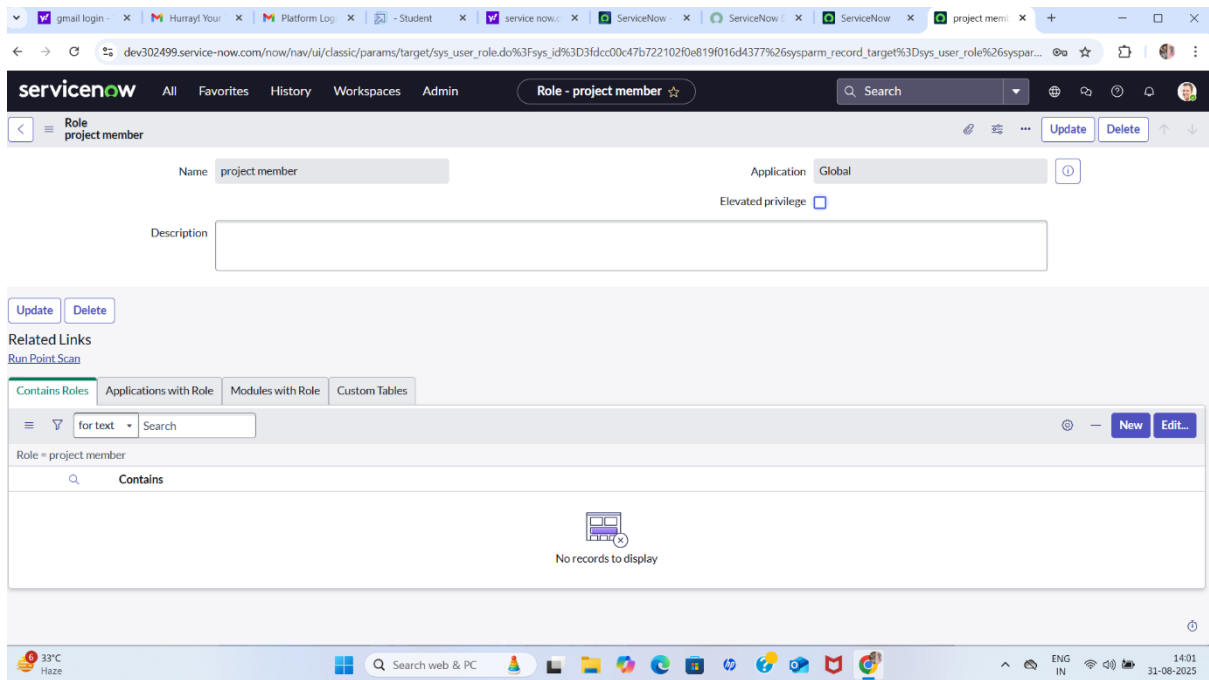
1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit

The screenshot shows the ServiceNow interface for creating a new group. The browser address bar shows the URL: `dev302499.service-now.com/now/nav/ui/classic/params/target/sys_user_group.do%3Fsys_id%3D02abc88847b722102f0e819f016d43b0%26sysparm_record_target%3Dsys_user_group%26...`. The ServiceNow header includes navigation links: All, Favorites, History, Workspaces, Admin, and a search bar. The main title is 'Group - Project Team'. The form fields are: Name (Project Team), Manager (empty), Group email (empty), Parent (empty), and Description (empty). Below the form are 'Update' and 'Delete' buttons. A tabbed interface shows 'Roles', 'Group Members (2)', and 'Groups'. The 'Roles' tab is active, displaying a table with columns: Created, Role, Granted by, and Inherits. The table is currently empty, showing 'No records to display'.

Milestone 3 :

Roles Activity 1: Create Roles

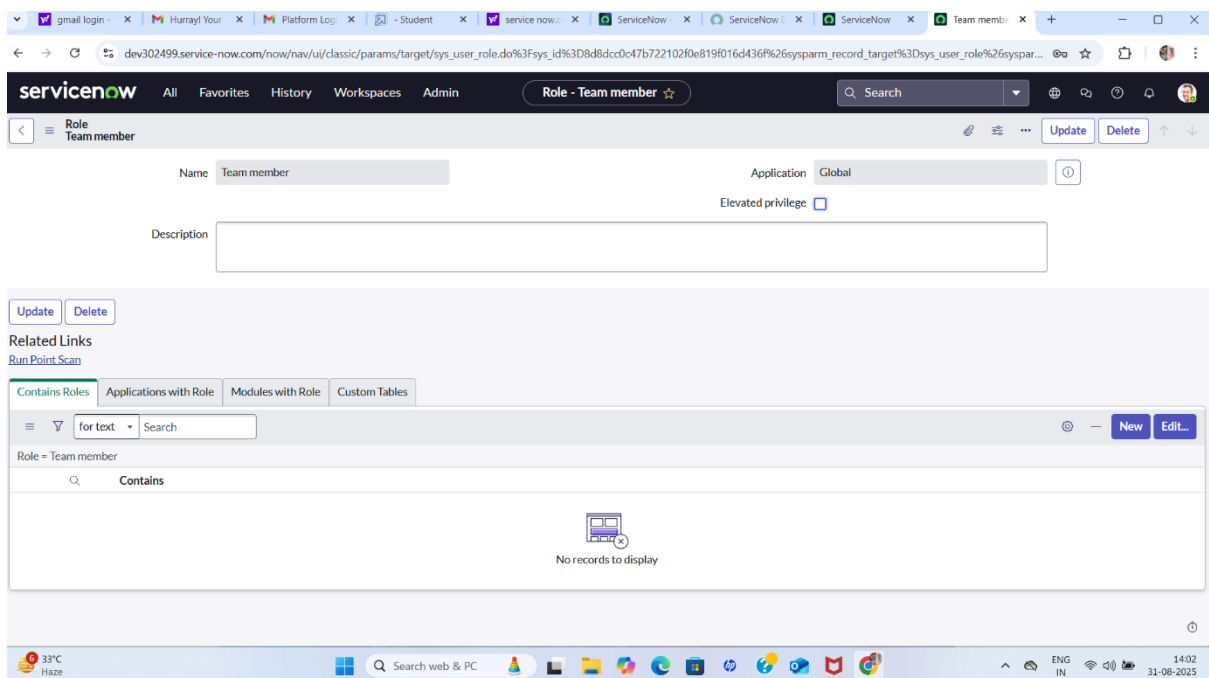
1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit



Create one more role:

7.Create another role with the following details

8.Click on submit



Milestone 4 :

Table Activity 1: Create Table

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new
5. Fill the following details to create a new table Label : project table Check the boxes Create module & Create mobile module
6. Under new menu name : project table
7. Under table columns give the columns

The screenshot shows the ServiceNow interface for creating a new table. The browser address bar shows the URL: `dev302499.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D5eae448c47b722102f0e619f016d4347%26sysparm_record_target%3Dsys_db_object%26sys...`. The page title is "Table - project table". The "Label" field is set to "project table" and the "Name" field is set to "u_project_table". The "Application" dropdown is set to "Global". The "Columns" tab is selected, showing a list of dictionary entries for the table columns.

Column label	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
+ Insert a new row...					

8. Click on submit

Table - project table

Table Columns for text Search

Dictionary Entries

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

Insert a new row...

Create one more table:

9. Create another table as: task table 2 and fill with following details.
10. Click on submit.

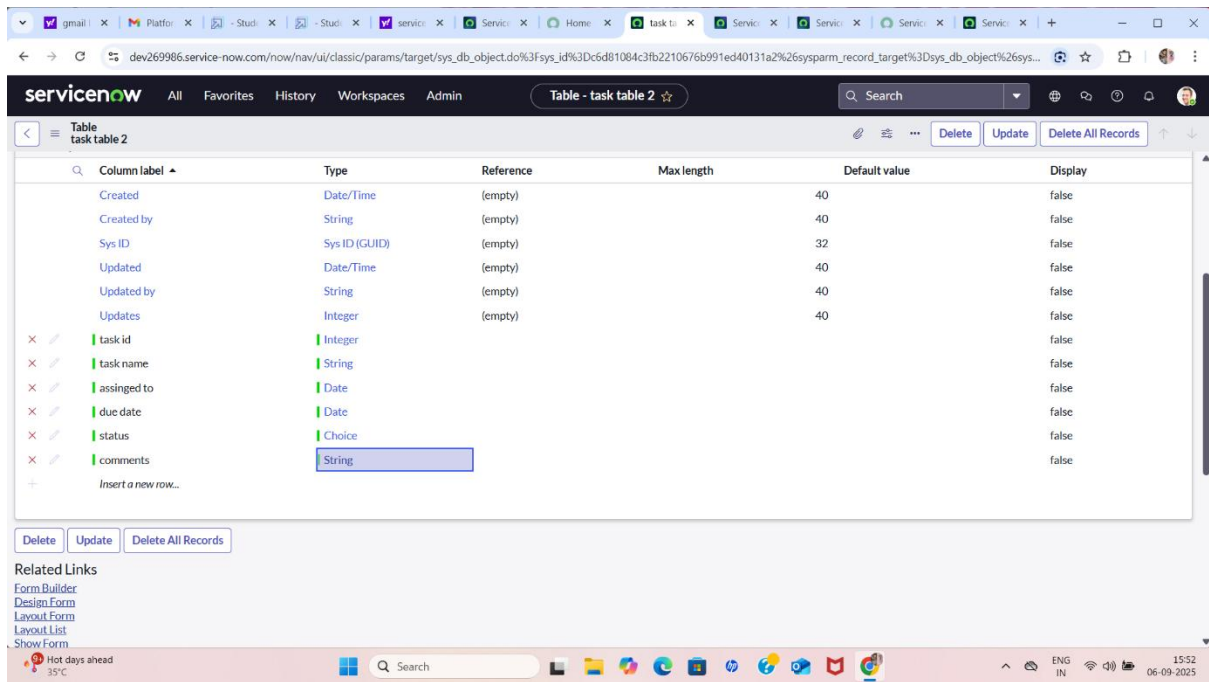
Table - task table 2

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false

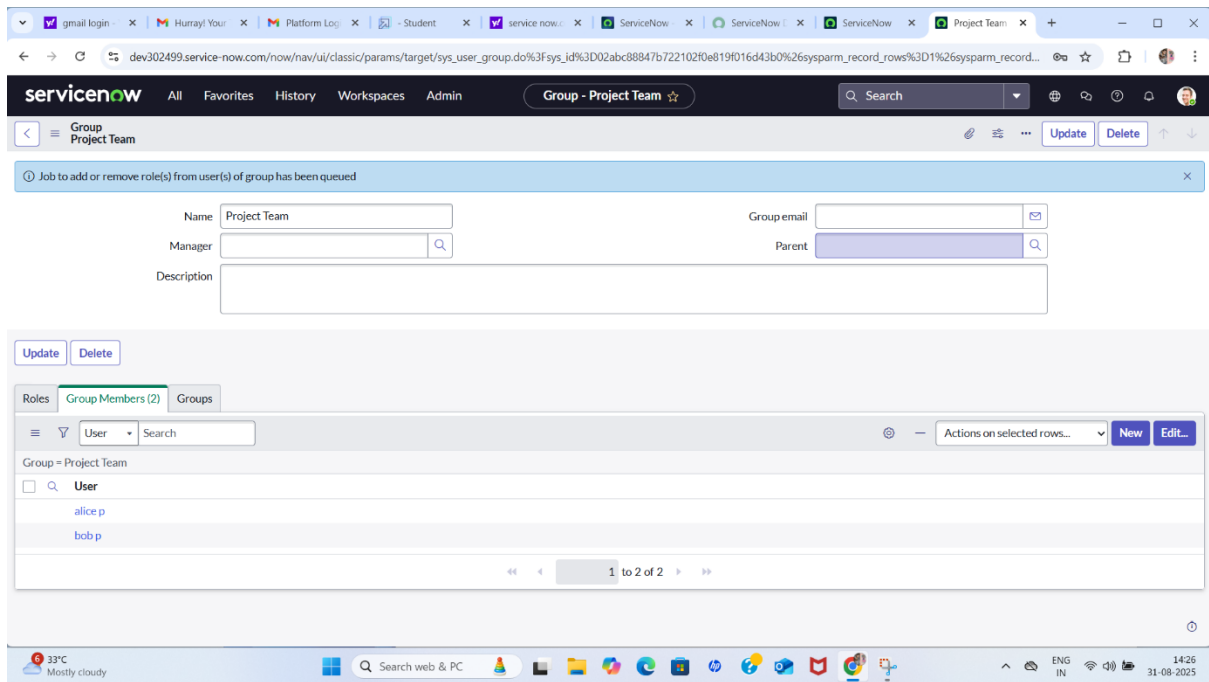
Insert a new row...



Milestone 5 : Assign users to groups

Activity 1: Assign users to project team group

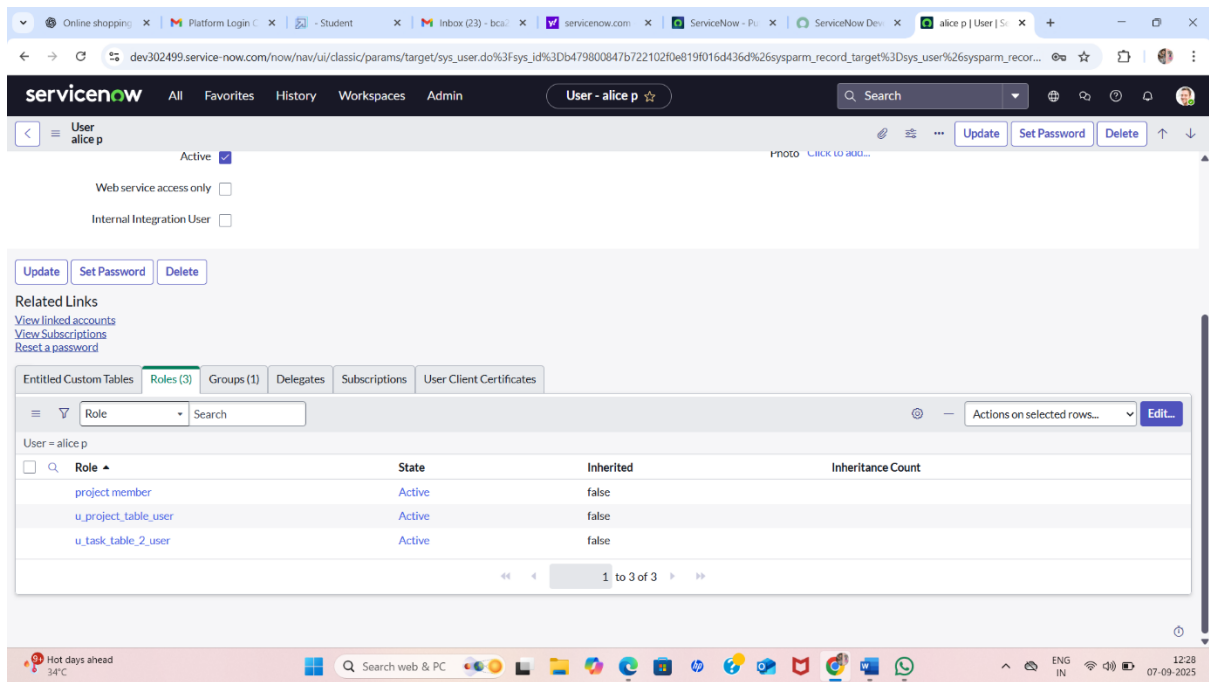
1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



Milestone 6 : Assign roles to users

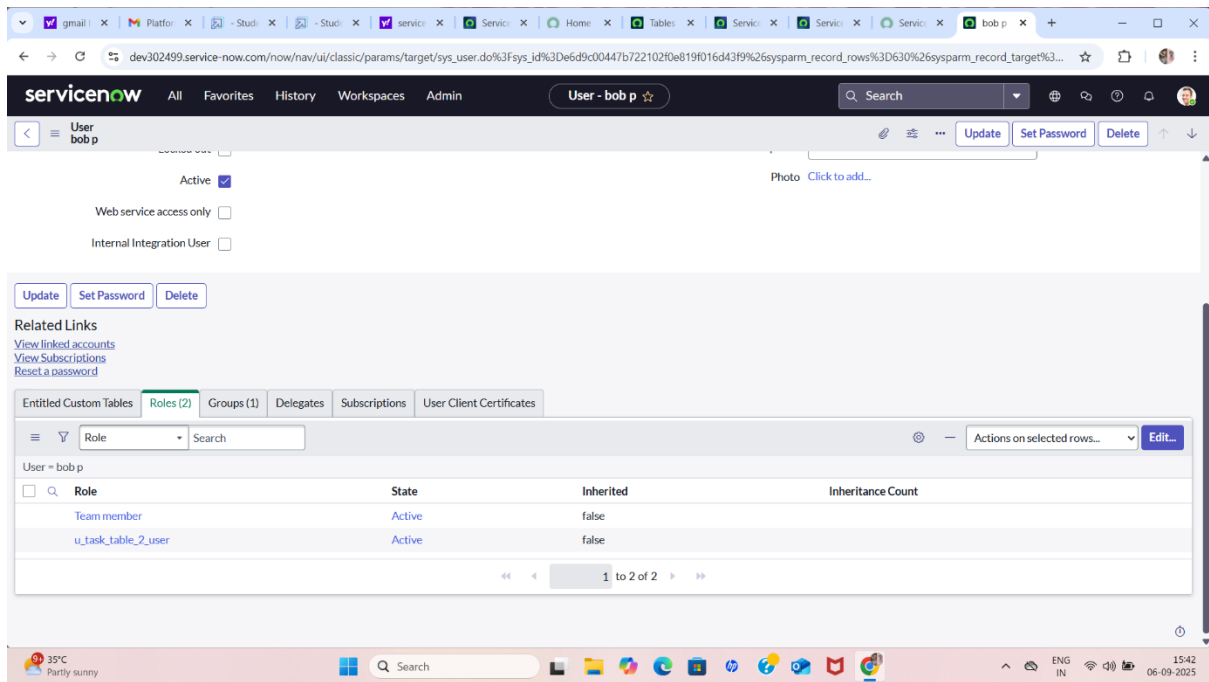
Activity 1: Assign roles to alice user

1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user
4. Under project manager
5. Click on edit
6. Select project member and save
7. click on edit add u_project_table role and u_task_table role
8. click on save and update the form.



Activity 2: Assign roles to bob user

1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the bob p user
4. Under team member
5. Click on edit
6. Select team member and give table role and save
7. Click on profile icon Impersonate user to bob
8. We can see the task table2.



Milestone 7 : Application access

Activity 1: Assign table access to application

1. while creating a table it automatically create a application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give the project member and team member role for task table 2 application

dev302499.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3fsys_id%3D6ba3900447722102f0e819f016d437e%26sysparm_record_target%3Dsys_app_application%...

servicenow All Favorites History Workspaces Application Menu - project table

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 Application

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

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

Hint

Description

Modules Order Search

Very humid Now

Search

Actions on selected rows...

18:26 02-09-2025

dev302499.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3fsys_id%3D1a5918c847722102f0e819f016d43b3%26sysparm_record_target%3Dsys_app_application...

servicenow All Favorites History Workspaces Application Menu - task table 2

Application Menu task table 2

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 Application

Active ☒

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

Roles u_task_table_2_user, Team member, project member

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

Category

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

Hint

Description

Modules Order Search

30°C Haze

Search

Actions on selected rows...

18:30 02-09-2025

Milestone 8 :Access control list

Activity 1: Create ACL

1. Open service now.
2. Click on All >> search for ACL
3. Select Access Control(ACL) under system security
4. Click on elevate role
5. Click on new

Access Control - u_task_table_2_u_status

* Type: record

* Operation: write

Decision Type: Allow If

Application: Global

Active: ☒

Admin overrides: ☒

Protection policy: -- None --

* Name: task table 2 [u_task_table_2]

status

Description:

Applies To: No. of records matching the condition: 0

Add Filter Condition Add "OR" Clause

-- choose field -- -- oper -- -- value --

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](#)

6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_task_table_2	Allow If	read	record	true	admin	2025-08-31 01:36:12
u_task_table_2	Allow If	delete	record	true	admin	2025-08-31 01:36:12
u_task_table_2	Allow If	write	record	true	admin	2025-09-06 02:16:13
u_task_table_2	Allow If	create	record	true	admin	2025-08-31 01:36:12
u_task_table_2_u_assigned_to	Allow If	write	record	true	admin	2025-09-06 02:32:39
u_task_table_2_u_due_date	Allow If	write	record	true	admin	2025-09-06 02:36:29
u_task_table_2_u_status	Allow If	write	record	true	admin	2025-09-06 02:26:45
u_task_table_2_u_task_id	Allow If	write	record	true	admin	2025-09-06 02:38:14
u_task_table_2_u_task_name	Allow If	write	record	true	admin	2025-09-06 02:40:21
VA Channel Integration ACL	Allow If	execute	REST_Endpoint	true	admin	2023-04-05 00:28:13
VA Designer Config	Allow If	execute	REST_Endpoint	true	admin	2024-05-22 12:09:23
VaCallbackPropertyUtil	Allow If	execute	client_callable_script_include	true	admin	2022-05-09 01:51:24
ValidateAesVersion	Allow If	execute	client_callable_script_include	true	admin	2022-01-11 10:48:04
ValidateAlternatePortal	Allow If	execute	client_callable_script_include	true	admin	2024-03-06 16:53:36
ValidateAppVersionAjax	Allow If	execute	client_callable_script_include	true	admin	2021-10-05 03:00:09
ValidateEnvironment	Allow If	execute	client_callable_script_include	true	admin	2022-01-06 09:58:13

12. Click on profile on top right side
13. Click on impersonate user
14. Select bob user
15. Go to all and select task table2 in the application menu bar
16. Comment and status fields are have the edit access

Milestone 9: Flow

Activity 1: Create a Flow to Assign operations ticket to group

1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ task table”.
6. Application should be Global.
7. Click build flow.

dev269986.service-now.com/now/nav/ui/classic/params/target/sys_db_object_list.do%3Fsysparm_userpref_module%3D7e7ca89ac0a8000901594ba32f405461%26sysparm_query%3Dsys_updat...

serviceNow

flow

FAVORITES

No Results

ALL RESULTS

- ✓ Docker Webhook Answer Sub...
- ✓ Docker Webhook Answer Subf...
- ✓ Webhook Answer Subflow
- ✓ Process Automation
- ✓ Workflow Studio
- ✓ Flow Designer
- ✓ Flow Administration
- Today's Executions

Application: Global

Create module: ☒

Create mobile module: ☒

Add module to menu: -- Create new --

New menu name:

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
assigned to	String	(empty)	40		false
comments	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
due date	Date	(empty)	40		false
status	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false

Air: Moderate Today

Search

ENG IN

14:18 14-09-2025

dev302499.service-now.com/now/workflow-studio/home/flow

Workflow Studio

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 69

Last refreshed just now

Name	Application	Status	Active	Updated
Admin Deployment Approval Flow Error Notifier	App Engine Studio	Published	true	2020-07-28 13:20:50
Admin Install App to Production Environment Flow Error Notifier	App Engine Studio	Published	true	2020-07-28 13:37:16
Application Intake Request Flow	Application Intake	Published	true	2025-08-30 19:31:17
Application Intake Request V2	Application Intake	Published	true	2025-08-30 19:31:11
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2025-06-04 08:41:11
Business process approval flow	Global	Published	true	2020-09-27 22:06:13
Change - Cloud Infrastructure - Authorize	Global	Published	true	2020-11-11 07:08:05
Change - Emergency - Authorize	Global	Published	true	2020-10-06 05:39:49
Change - Emergency - Implement	Global	Published	true	2020-09-23 05:06:26

New

- Playbook
- Flow
- Subflow
- Action
- Decision table

Pick up where you left off

- task table Last updated: 17 h. ago by System Ad...
- Create Flow Data Last updated: a year ago by System Ad...
- Deployment Environment T... Last updated: a year ago by System Ad...

Latest updates

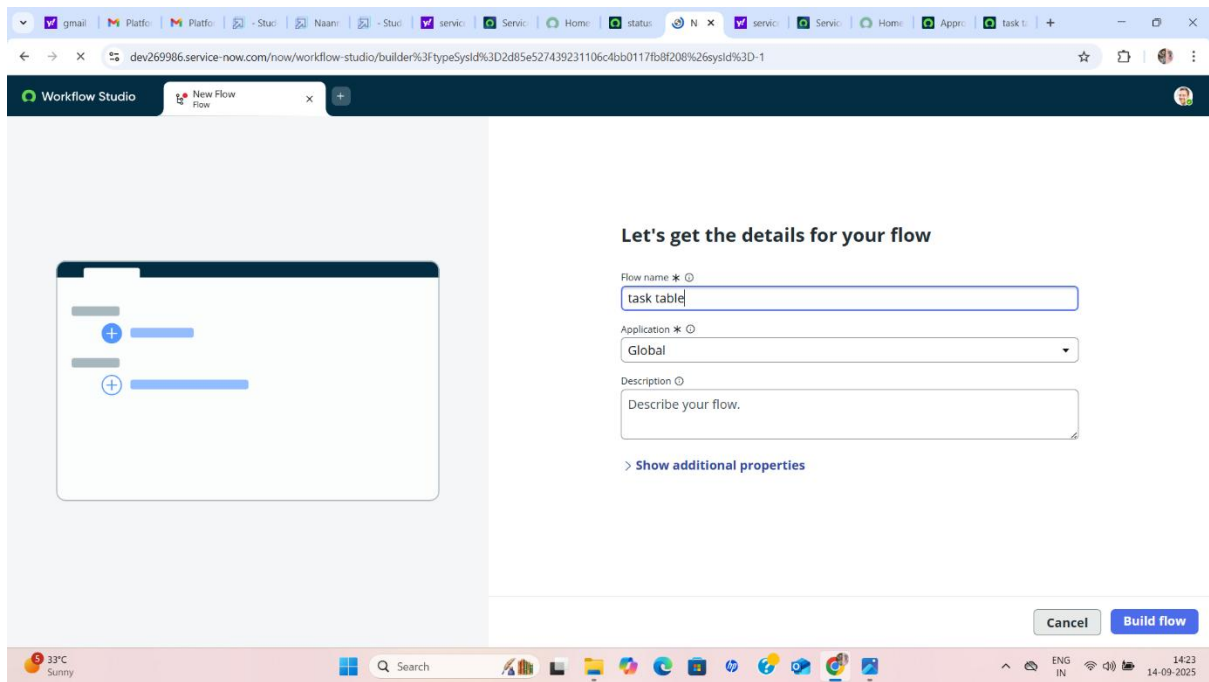
- System Administrator modified task table 17 h. ago
- System Administrator modified Create Flow Data a year ago
- System Administrator modified Deployment Environment Type Flow a year ago
- System Administrator modified Steps

32°C Partly sunny

Search

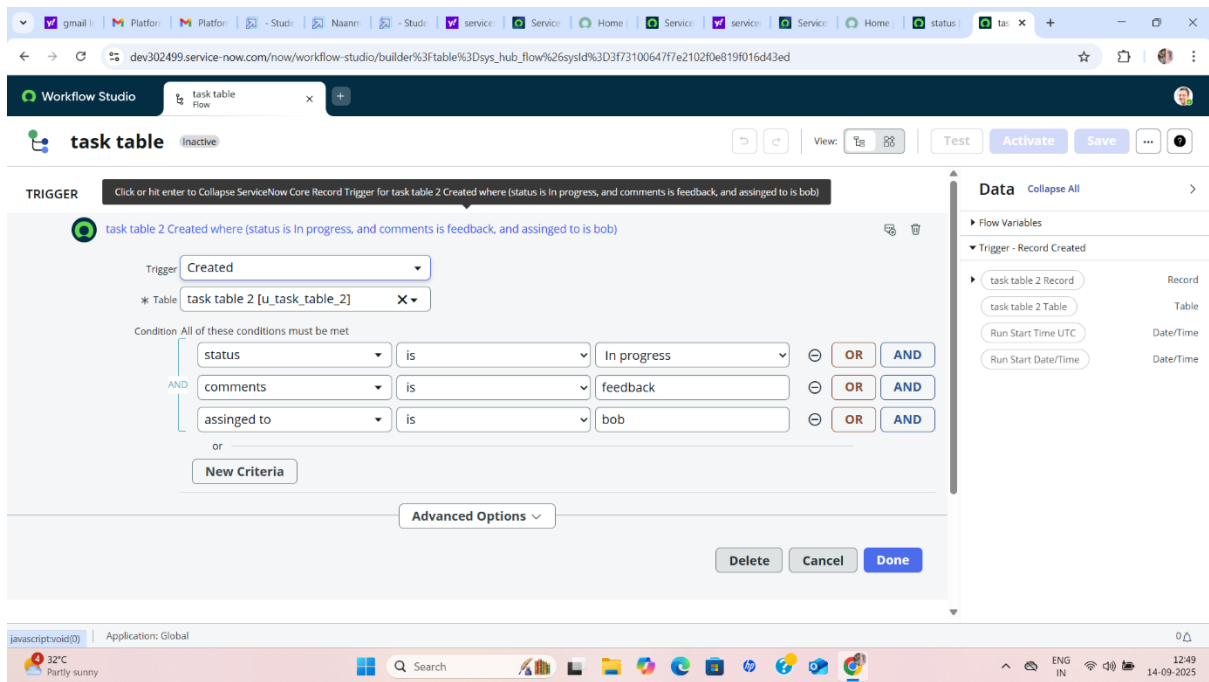
ENG IN

12:46 14-09-2025



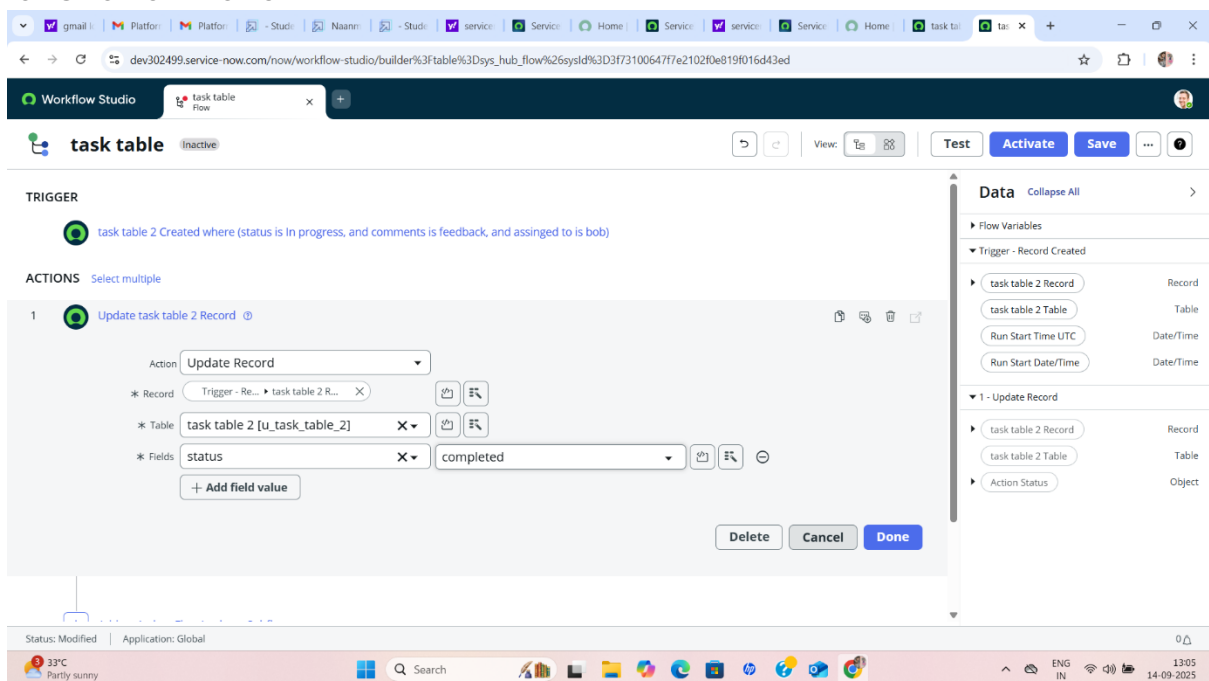
Next step:

1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress
Field : comments Operator :is Value : feedback
Field : assigned to Operator :is Value : bob
5. After that click on Done.



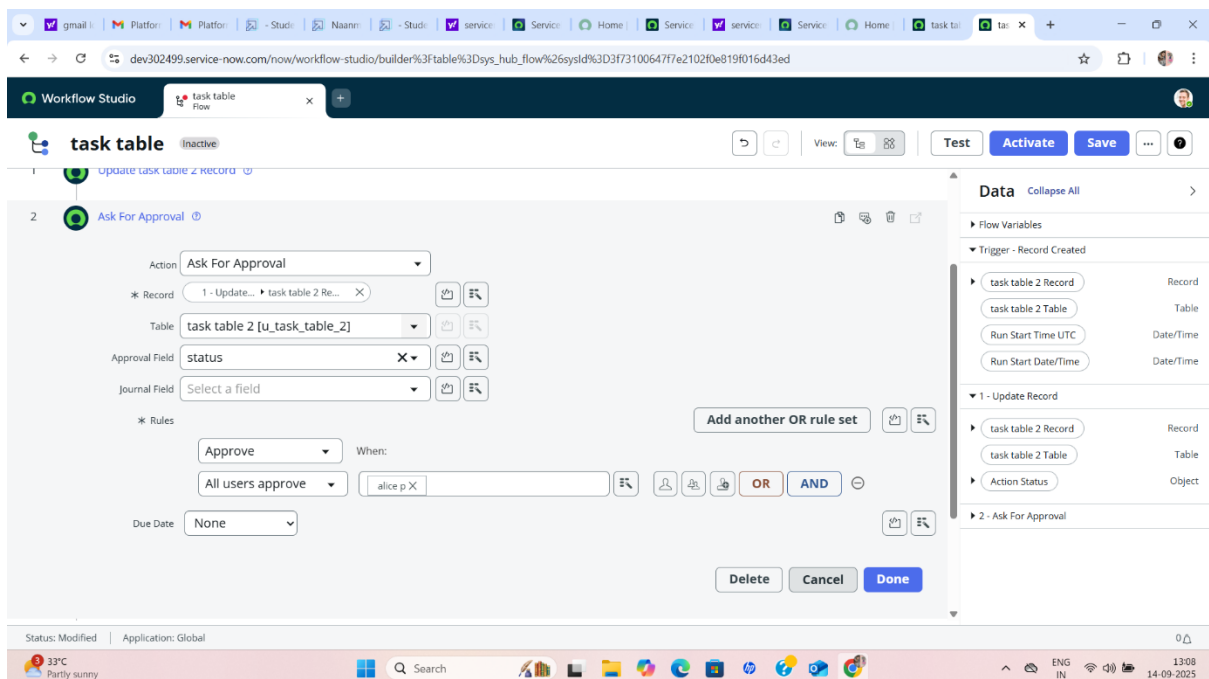
Next step:

1. Click on Add an action.
2. Select action in that ,search for “update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.



Next step:

1. Now under Actions.
2. Click on Add an action.
3. Select action in that ,search for “ ask for approval ”.
4. In Record field drag the fields from the data navigation from Right side
5. Table will be auto assigned after that
6. Give the approve field as “ status”
7. Give approver as alice p 8. Click on Done.



9. Go to application navigator search for task table.
10. It status field is updated to completed

task id

comments

task name

due date

status

assigned to

11.Go to application navigator and search for my approval

12.Click on my approval under the service desk.

13. Alice p got approval request then right click on requested then select approved

State	Approver	Comments	Approval for	Created
Approved	alice p		(empty)	2025-09-14 01:56:41
Requested	bob p		(empty)	2025-09-14 01:56:41
Rejected	Fred Luddy		(empty)	2025-06-03 12:19:33
Requested	Fred Luddy		(empty)	2025-06-03 12:17:03
Requested	Fred Luddy		(empty)	2025-06-03 12:15:44
Requested	Howard Johnson		CHG0000096	2025-06-03 06:15:29
Requested	Ron Kettering		CHG0000096	2025-06-03 06:15:29
Requested	Luke Wilson		CHG0000096	2025-06-03 06:15:29
Requested	Christen Mitchell		CHG0000096	2025-06-03 06:15:29
Requested	Bernard Laboy		CHG0000096	2025-06-03 06:15:29
Requested	Howard Johnson		CHG0000095	2025-06-03 06:15:25
Requested	Ron Kettering		CHG0000095	2025-06-03 06:15:25
Requested	Luke Wilson		CHG0000095	2025-06-03 06:15:25
Requested	Christen Mitchell		CHG0000095	2025-06-03 06:15:25
Requested	Bernard Laboy		CHG0000095	2025-06-03 06:15:25
Requested	Luke Wilson		CHG0000094	2025-06-03 06:15:21
Requested	Christen Mitchell		CHG0000094	2025-06-03 06:15:21
Requested	Bernard Laboy		CHG0000094	2025-06-03 06:15:21

Conclusion

This scenario highlights a structured approach to project management, showcasing the roles of Alice and Bob within a defined workflow. With Alice's oversight and Bob's execution, the team effectively collaborates to ensure project success. The use of tables organizes key information, facilitating easy tracking of projects, tasks, and progress updates. Overall, this system promotes accountability, enhances communication, and leads to the successful completion of projects.