

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

Team Id: NM2025TMID13093

Team Members:4

Team Leader : ABISHEK.K

Team Member 1 : LOGESHWARAN.R

Team Member 2 : KARTHIKEYAN.S

Team Member 3 : PURUSHOTHAMAN.R

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:

Enhance User Experience:

Provide personalized and intuitive experiences for students, faculty, and staff, ensuring they have the tools and support needed to excel.

Improve Operational Efficiency:

Streamline core institutional processes by automating administrative tasks, which improves productivity across departments.

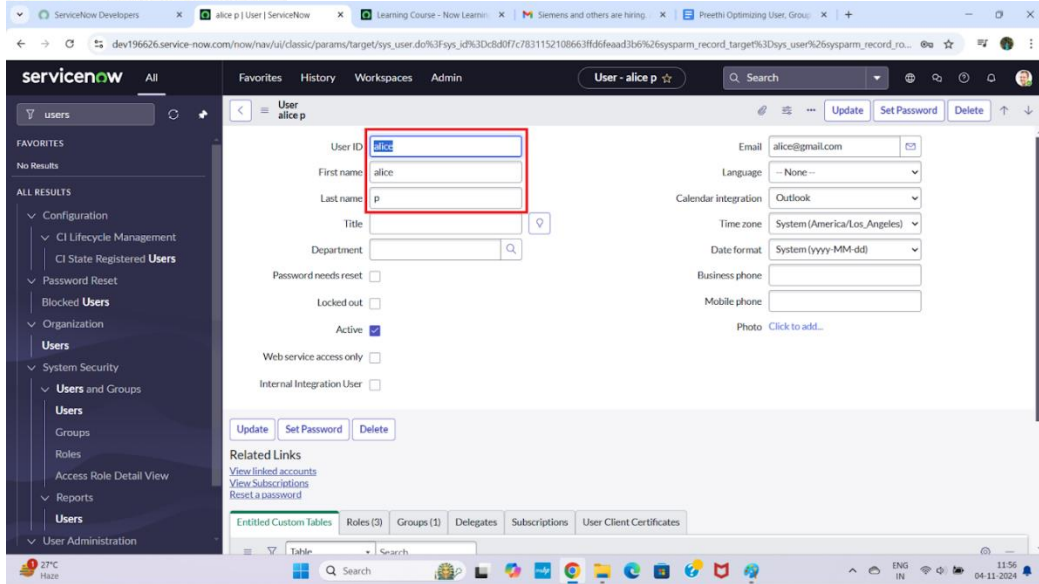
Foster Digital Transformation:

Modernize the institution by adopting digital tools and processes to adapt to the evolving demands of the digital economy and prepare students for the future.

TASK INITIATION

Create Users

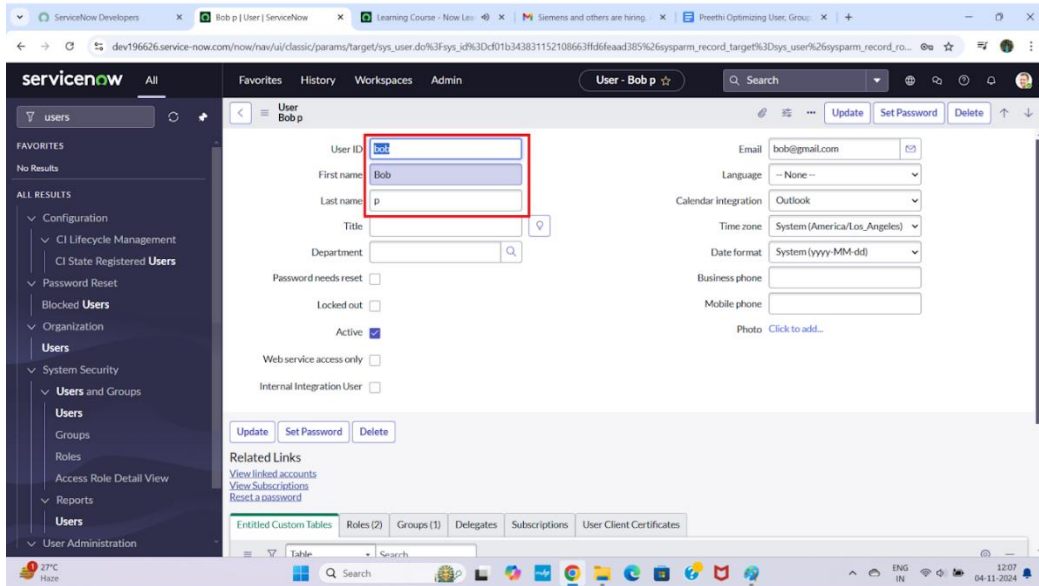
1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit



The screenshot shows the ServiceNow User Administration interface. The left sidebar contains a navigation menu with categories like Configuration, Password Reset, Organization, System Security, and User Administration. The main content area displays the 'User - alice p' form. The form has several tabs at the top: 'Entitled Custom Tables', 'Roles (3)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'User ID' field is highlighted with a red box. Below the form, there are buttons for 'Update', 'Set Password', and 'Delete'. The bottom of the screen shows a Windows taskbar with various application icons and a system tray with the date and time.

Create one more user:

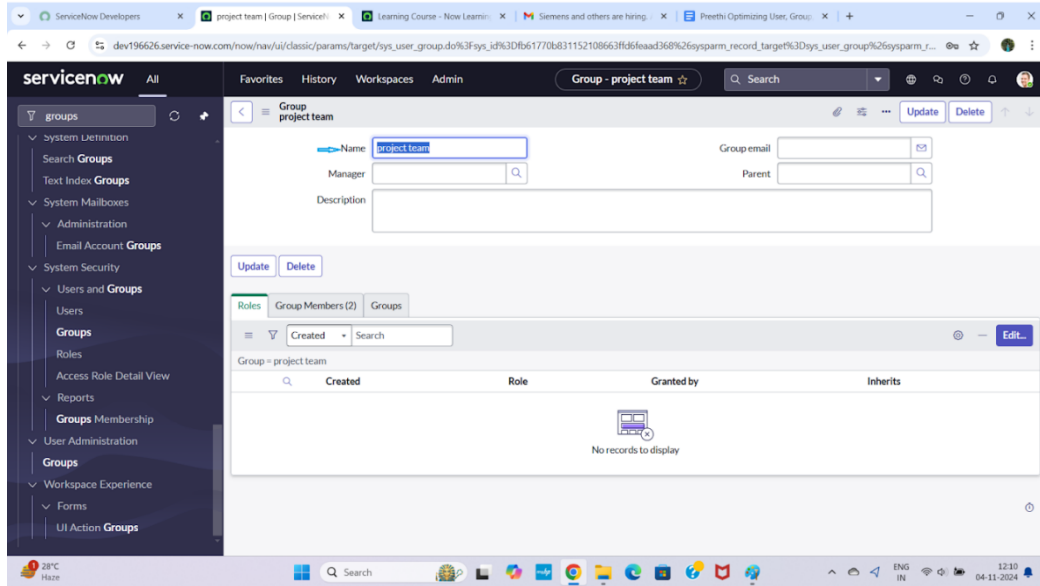
7. Create another user with the following details
8. Click on submit



The screenshot shows the ServiceNow User Administration interface. The left sidebar contains a navigation menu with options like Configuration, CI Lifecycle Management, Password Reset, Blocked Users, Organization, Users, System Security, Users and Groups, Groups, Roles, Access Role Detail View, Reports, and User Administration. The main content area displays the 'User - Bob p' form. The form has several tabs: 'Entitled Custom Tables', 'Roles (2)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'User ID' field is highlighted with a red box. Other fields include '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', and 'Mobile phone'. There are also checkboxes for 'Password needs reset', 'Locked out', 'Active', 'Web service access only', and 'Internal Integration User'. At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete'.

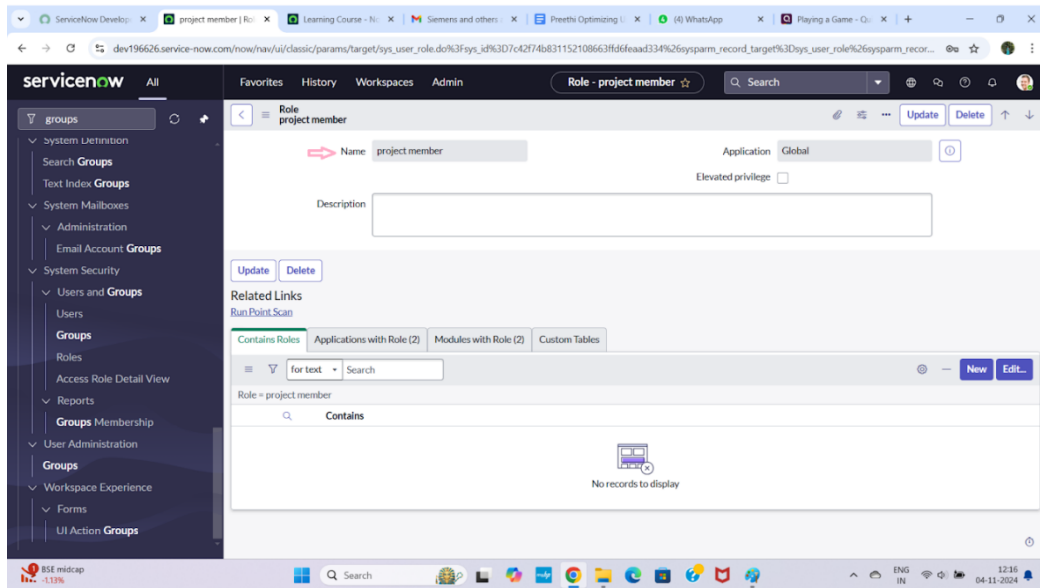
Create Groups

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



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 : Team member

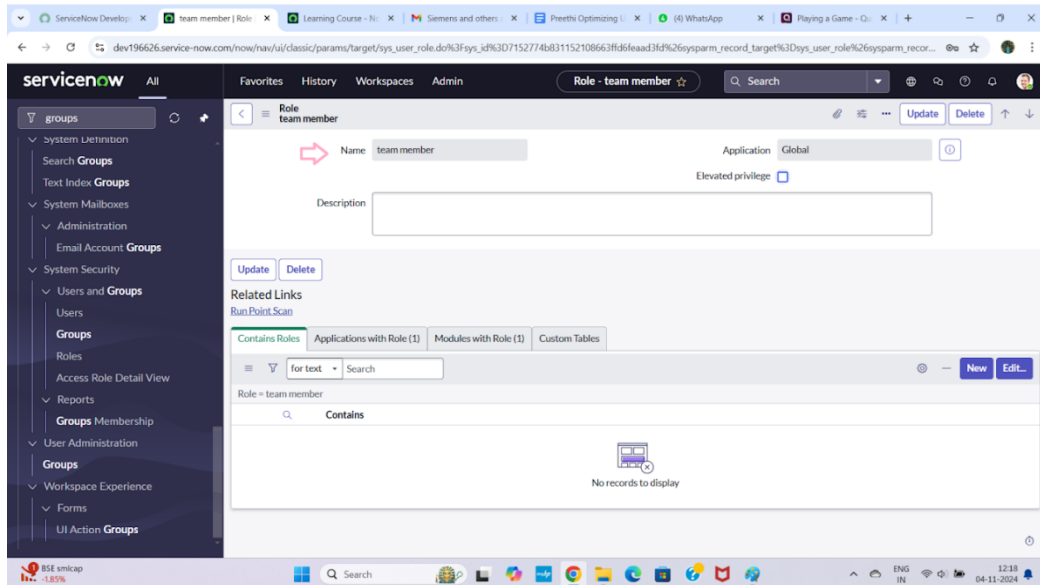
8. Click on submit

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



8. Click on submit

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D-1%26sys_is_list%3Dtrue%26sys_target%3Dsys_db_object%26sysparm_c...

servicenow All Favorites History Workspaces Table - New Record Search

Table New record

* Name

Extends table

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
<input checked="" type="checkbox"/>	project id	Integer				false
<input checked="" type="checkbox"/>	project name	String				false
<input checked="" type="checkbox"/>	project manger	String				false
<input checked="" type="checkbox"/>	start date	Date				false
<input checked="" type="checkbox"/>	end date	Date				false
<input checked="" type="checkbox"/>	status	Choice				false
<input checked="" type="checkbox"/>	description	String				false

Activate Windows
Go to Settings to activate Windows.

Create one more table:

9.Create another table as: task table 2 and fill with following details.

10. Click on submit.

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Df53ba8e3835992108663ffd6feaad365%26sysparm_view%3D%26sysparm_dom...

service-now All Favorites History Workspaces Table - task table 2 Search

Table task table 2 Delete Update Delete All Records

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
Sys ID	Sys ID (GUID)	(empty)		32	false
Created by	String	(empty)		40	false
Created	Date/Time	(empty)		40	false
task id	Integer				false
task name	String				false
assigned to	String				false
due date	Date				false
status	Choice				false
comments	String				false

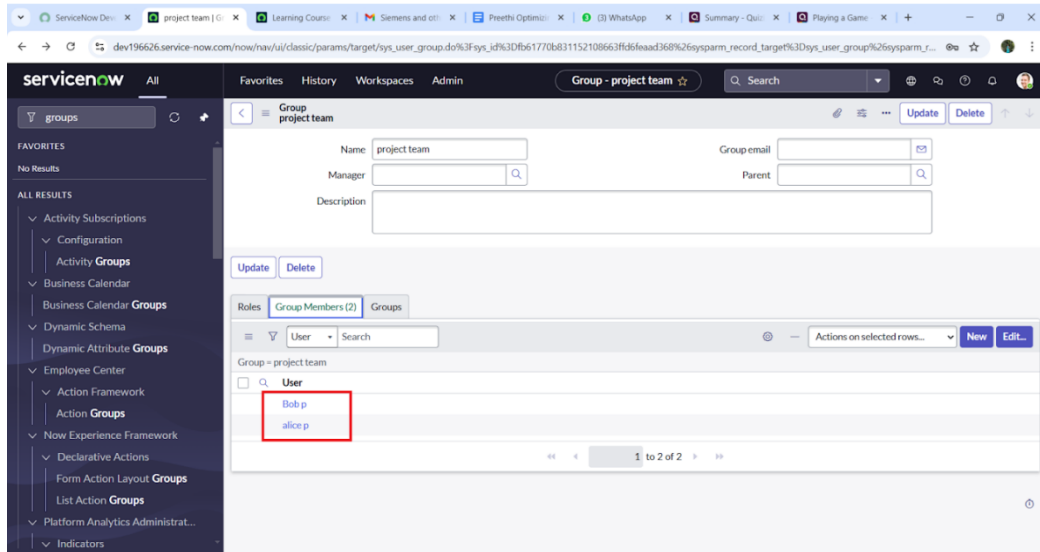
Insert a new row...

Activate Windows
Go to Settings to activate Windows.

Delete Update Delete All Records

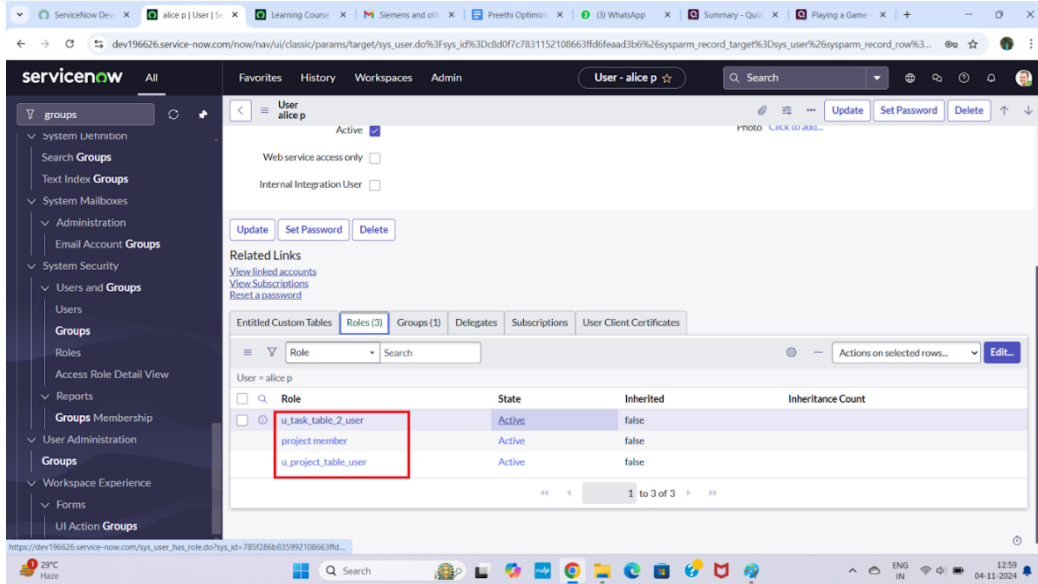
Assign users to project team group

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



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.

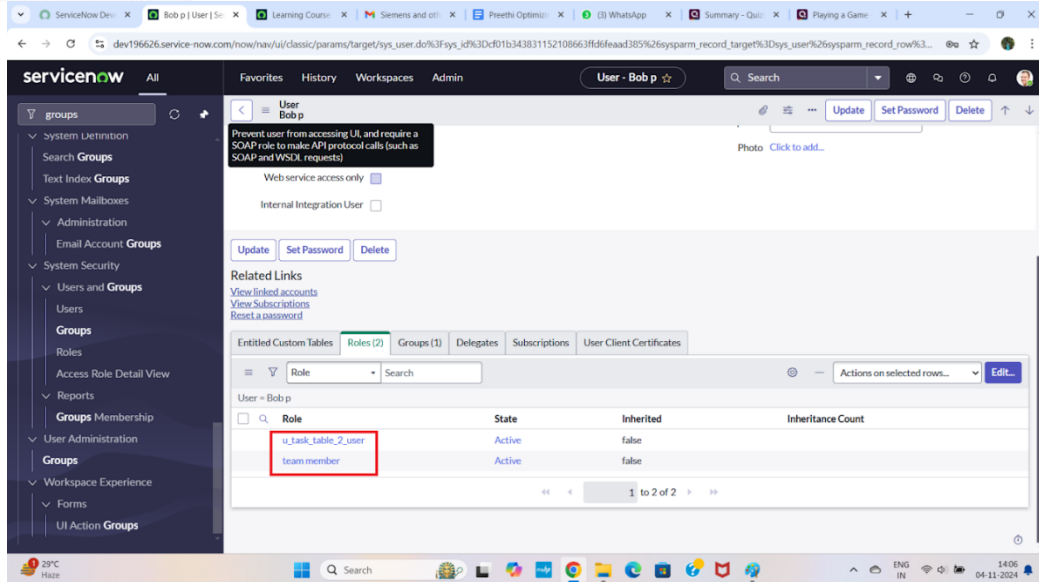


The screenshot shows the ServiceNow user management interface. The user 'alice p' is selected, and the 'Roles' tab is active. The table below lists the roles assigned to the user:

Role	State	Inherited	Inheritance Count
u_task_table_2_user	Active	false	
project member	Active	false	
u_project_table_user	Active	false	

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.



The screenshot shows the ServiceNow User Administration interface. The left sidebar contains a navigation menu with categories like System Definition, System Mailboxes, Administration, System Security, Users and Groups, Roles, Reports, Groups Membership, User Administration, Workspace Experience, Forms, and UI Action Groups. The main content area displays the 'User' profile for 'Bob p'. Below the profile information, there are tabs for 'Entitled Custom Tables', 'Roles (2)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles' tab is active, showing a table of roles assigned to the user. The table has columns for 'Role', 'State', 'Inherited', and 'Inheritance Count'. Two roles are listed: 'u_task_table_2_user' and 'team member', both with a state of 'Active' and 'Inherited' as 'false'.

Role	State	Inherited	Inheritance Count
u_task_table_2_user	Active	false	
team member	Active	false	

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

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D9705334f831152108663ffd6feaad362

servicenow All Favorites History Admin 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 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

Update Delete

Activate Windows
Go to Settings to activate Windows.

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D114bece3835992108663ffd6feaad3dc


servicenow All Favorites History Admin Application Menu - task table 2 Search

Application Menu task table 2

Application Group



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, 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

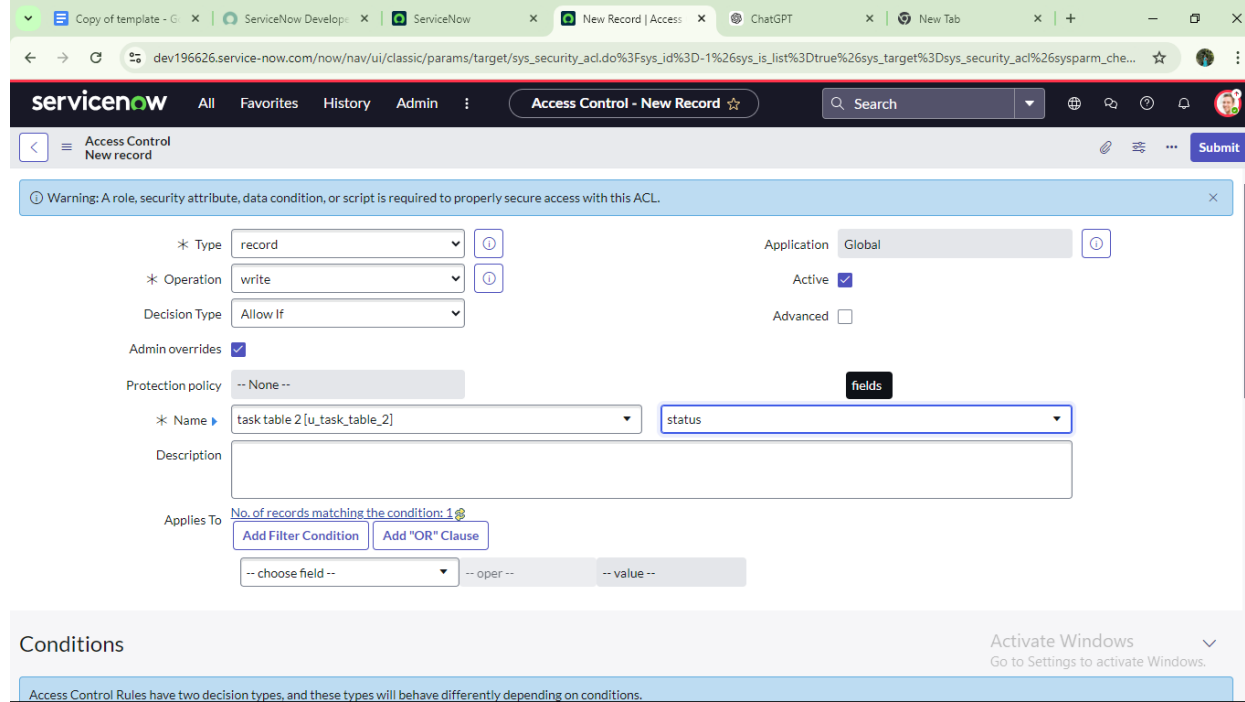
Activate Windows
Go to Settings to activate Windows

Actions on selected rows... New

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

6. Fill the following details to create a new ACL



Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL.

* Type: record

* Operation: write

Decision Type: Allow If

Application: Global

Active: ☒

Advanced: ☐

Admin overrides: ☒

Protection policy: -- None --

* Name: task table 2 [u_task_table_2]

Description:

Applies To: No. of records matching the condition: 1

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.

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

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_security_ad_list.do%3Fsysparm_query%3Dsys_created_onONToday%40javascript%3Ags.beginningOfToday...

servicenow All Favorites History Workspaces Access Controls Search

Access Controls Name Search Actions on selected rows... New

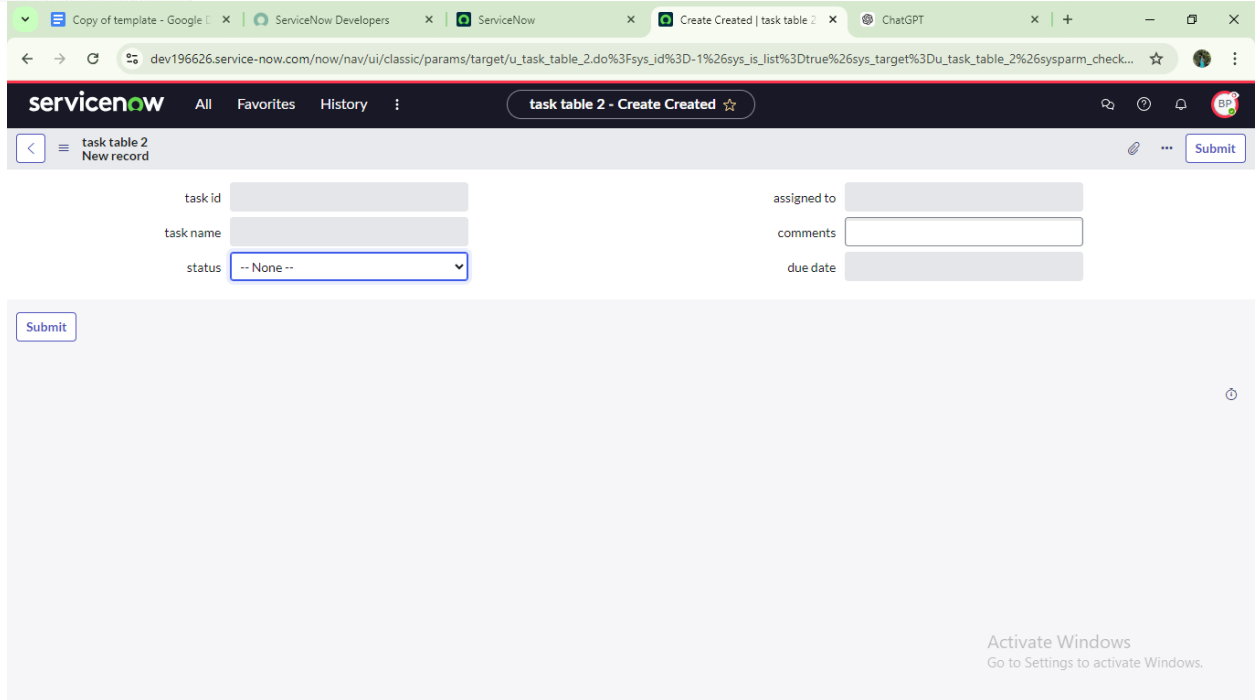
All > Created on Today

<input type="checkbox"/>	Name	Decision Type	Operation	Type	Active	Updated by	Updated
<input type="checkbox"/>	u_leave_request	Allow If	delete	record	true	admin	2024-10-22 02:27:59
<input type="checkbox"/>	u_leave_request	Allow If	create	record	true	admin	2024-10-22 02:27:59
<input type="checkbox"/>	u_task_table	Allow If	read	record	true	admin	2024-10-22 04:21:28
<input type="checkbox"/>	u_task_table	Allow If	write	record	true	admin	2024-10-22 04:20:15
<input type="checkbox"/>	u_task_table.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 04:33:53
<input type="checkbox"/>	u_task_table.u_due_date	Allow If	write	record	true	admin	2024-10-22 04:33:14
<input type="checkbox"/>	u_task_table.u_task_id	Allow If	write	record	true	admin	2024-10-22 04:27:47
<input type="checkbox"/>	u_task_table.u_task_name	Allow If	write	record	true	admin	2024-10-22 04:31:14
<input type="checkbox"/>	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:05:07
<input type="checkbox"/>	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:26:57
<input type="checkbox"/>	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:05:07
<input type="checkbox"/>	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:28:27
<input type="checkbox"/>	u_task_table_2	Allow If	create	record	true	admin	2024-10-22 21:05:06
<input type="checkbox"/>	u_task_table_2	Allow If	delete	record	true	admin	2024-10-22 21:05:07
<input type="checkbox"/>	u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 21:31:20

Activate Windows Go to Settings to activate Windows.

1 to 20 of 23

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



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.

dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6feaad3bb%26sysparm_record_target%3Du_task_t...

task table 2 - Created 2024-10-22 2...

Search

Update Delete

assigned to bob

comments

due date

flow

FAVORITES
No Results

ALL RESULTS

Process Automation

Workflow Studio

Flow Designer

Flow & Action Designer

Today's Executions

Active Flows

Content Definitions

Activate Windows
Go to Settings to activate Windows.

https://dev196626.service-now.com/\$flow-designer.do?sysparm_nostack=true

dev196626.service-now.com/now/workflow-studio/home/flow

Workflow Studio

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 39
Last refreshed just now

Name	Application	Status	Active	Update
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09
Business process approval flow	Global	Published	true	2020-09
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
Change - Emergency - Review	Global	Published	true	2020-10-27 04:18:08
Change - Normal - Assess	Global	Published	true	2020-10-06 05:37:05
Change - Normal - Authorize	Global	Published	true	2020-10-06 05:38:35
Change - Normal - Implement	Global	Published	true	2020-09-23 04:23:59

New

Playbook

Flow

Subflow

Action

Decision table

Pick up where you left off

task table
Last updated: 14 min. ago by Syst...

Create Flow Data
Last updated: 5 months ago by Sy...

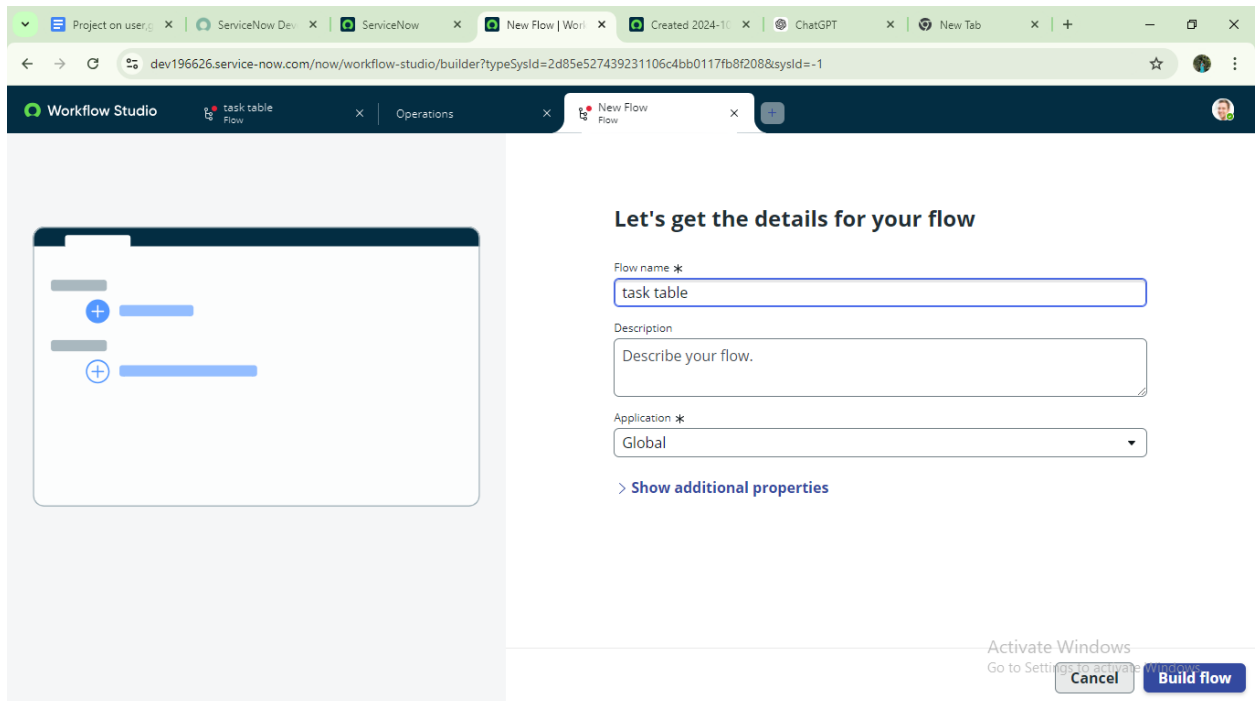
Steps
Last updated: 5 months ago by Sy...

Latest updates

System Administrator modified task table
14 min. ago

System Administrator modified Create Flow Data
5 months ago

System Administrator modified Steps
5 months ago



The screenshot shows the ServiceNow Workflow Studio interface. The browser address bar displays the URL: `dev196626.service-now.com/now/workflow-studio/builder?typeSysId=2d85e527439231106c4bb0117fb8f208&sysId=-1`. The interface has a dark blue header with tabs for 'Workflow Studio', 'task table Flow', 'Operations', and 'New Flow Flow'. The main area is split into two panels. The left panel shows a canvas with a flow diagram consisting of two steps, each represented by a blue bar with a plus icon. The right panel, titled 'Let's get the details for your flow', contains the following fields:

- Flow name ***: A text input field containing 'task table'.
- Description**: A text area with the placeholder text 'Describe your flow.'
- Application ***: A dropdown menu currently set to 'Global'.

Below these fields is a link that says '> Show additional properties'. At the bottom right of the interface, there is an 'Activate Windows' watermark and two buttons: 'Cancel' and 'Build flow'.

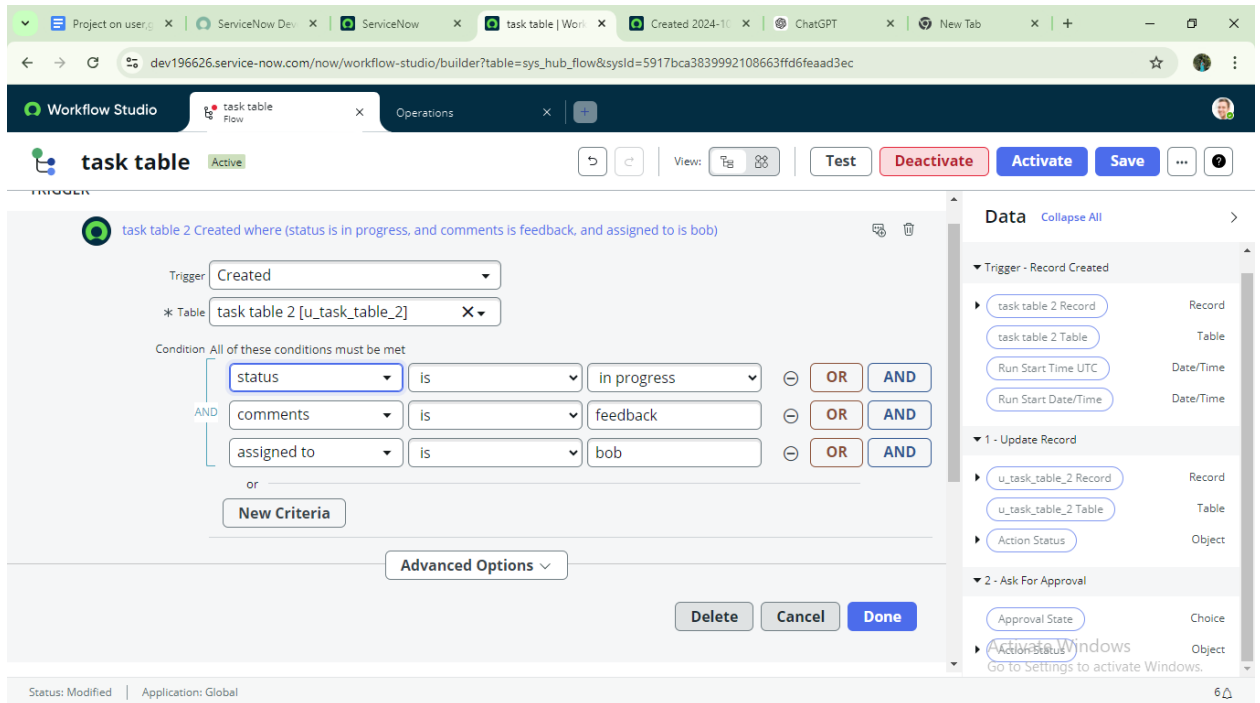
next step:

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

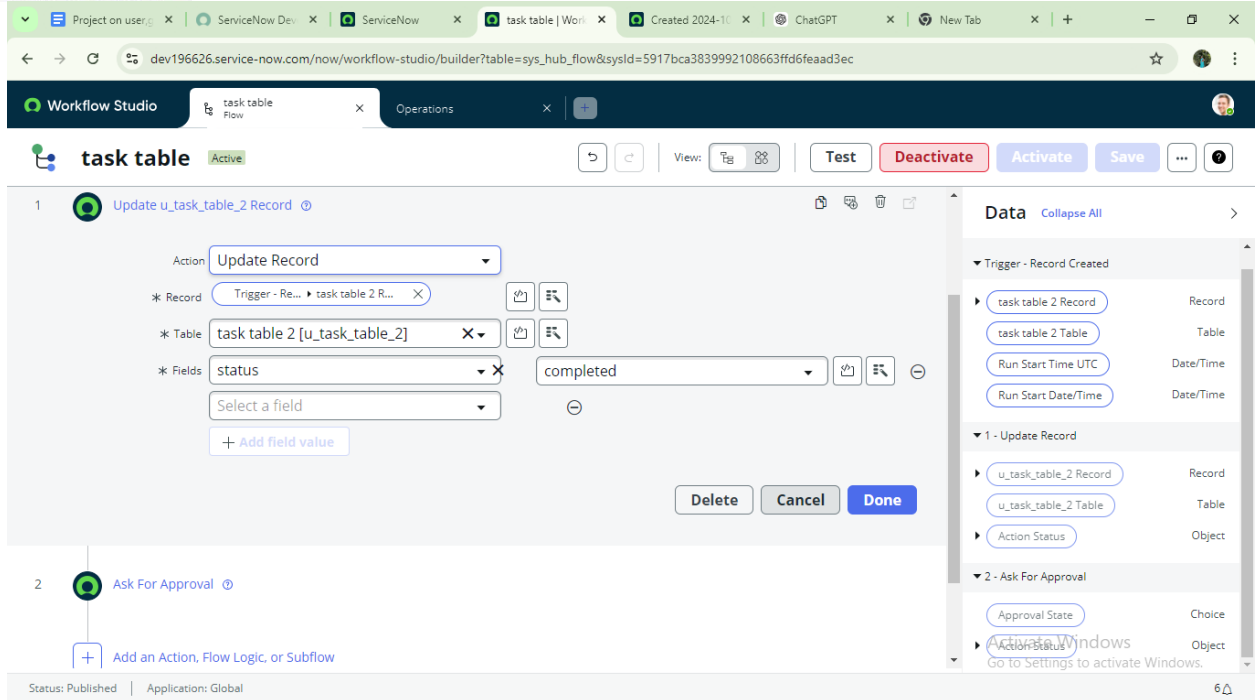
5. After that click on Done.



The screenshot shows the ServiceNow Workflow Studio interface. The main workspace displays a trigger configuration for 'task table 2'. The trigger is set to 'Created' and is associated with the table 'task table 2 [u_task_table_2]'. The condition is defined as 'All of these conditions must be met' with three criteria: 'status' is 'in progress', 'comments' is 'feedback', and 'assigned to' is 'bob'. The trigger is currently 'Active'. On the right side, the 'Data' panel is visible, showing a list of data fields including 'task table 2 Record', 'task table 2 Table', 'Run Start Time UTC', 'Run Start Date/Time', 'u_task_table_2 Record', 'u_task_table_2 Table', 'Action Status', 'Approval State', and 'Action Status'. The bottom status bar indicates 'Status: Modified' and 'Application: Global'.

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.



The screenshot shows the ServiceNow Workflow Studio interface. The main workspace displays a workflow with two steps:

- Update u_task_table_2 Record**: This step is configured with the following details:
 - Action**: Update Record
 - Record**: Trigger - Re... task table 2 R...
 - Table**: task table 2 [u_task_table_2]
 - Fields**: status (set to completed)
- Ask For Approval**: This step is currently empty.

The right-hand pane shows the **Data** navigation tree, which includes:

- Trigger - Record Created**
 - task table 2 Record (Record)
 - task table 2 Table (Table)
 - Run Start Time UTC (Date/Time)
 - Run Start Date/Time (Date/Time)
- 1 - Update Record**
 - u_task_table_2 Record (Record)
 - u_task_table_2 Table (Table)
 - Action Status (Object)
- 2 - Ask For Approval**
 - Approval State (Choice)
 - Action Status (Object)

At the bottom, the status bar indicates "Status: Published" and "Application: Global".

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.

Workflow Studio | task table | Operations | View: [Icons] | Test | Deactivate | Activate | Save | [More]

task table Active

- Update u_task_table_2 Record
- Ask For Approval

Action: Ask For Approval

* Record: 1 - Upda... u_task_table_2 R... X [Icons]

Table: task table 2 [u_task_table_2] [Icons]

Approval Field: status X [Icons]

Journal Field: Select a field [Icons]

* Rules

Approve When: All users approve [alice p X] [Icons] OR AND [Icons]

Add another OR rule set Remove rule set

OR

Approve When: [Icons] Remove rule set

JavaScript:void(0) hed Application: Global

Data Collapse All

- Trigger - Record Created
 - task table 2 Record Record
 - task table 2 Table Table
 - Run Start Time UTC Date/Time
 - Run Start Date/Time Date/Time
- 1 - Update Record
 - u_task_table_2 Record Record
 - u_task_table_2 Table Table
 - Action Status Object
- 2 - Ask For Approval
 - Approval State Choice
 - Action Status Object

Go to Settings to activate Windows.

9.Go to application navigator search for task table.

10.It status field is updated to completed



dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6feaad3bb%26sysparm_record_target%3Du_task_t...

task table 2 - Created 2024-10-22 2...

task id

task name

status

assigned to

comments

due date

Update Delete

Activate Windows
Go to Settings to activate Windows.

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

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

service-now All Favorites History Workspaces Approvals Search

Approvals Created Search Actions on selected rows...

All

	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	Search	Search	Search	Search	Search
<input type="checkbox"/>	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

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.