

PROJECT DESIGN

Proposed solution:

Sno	Parameters	Description
1	Problem statement	Modern digital systems, especially in large organizations or platforms, require efficient and secure user management.
2	Idea	In modern organizations, managing access to systems and data is critical for security, compliance, and operational efficiency
3	Novelty	While access control and user management are not new concepts, this solution introduces innovations in automation, intelligence, and scalability that address the limitations of conventional systems. Here's what sets it apart:
4	Social impact	In a digitally connected world, effective access control systems are not just technical tools — they have a significant social and organizational
5	Business model	cloud-based SaaS platform that helps organizations manage users, groups, roles, and access rights with automated workflows, intelligent recommendations, and built-in compliance features
6	Scalability of solution	Scalability refers to the ability of the system to handle growth — in users, roles, permissions, workflows, integrations, and audit requirements — without compromising performance, usability, or security.

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MILESTONE -1 : Users

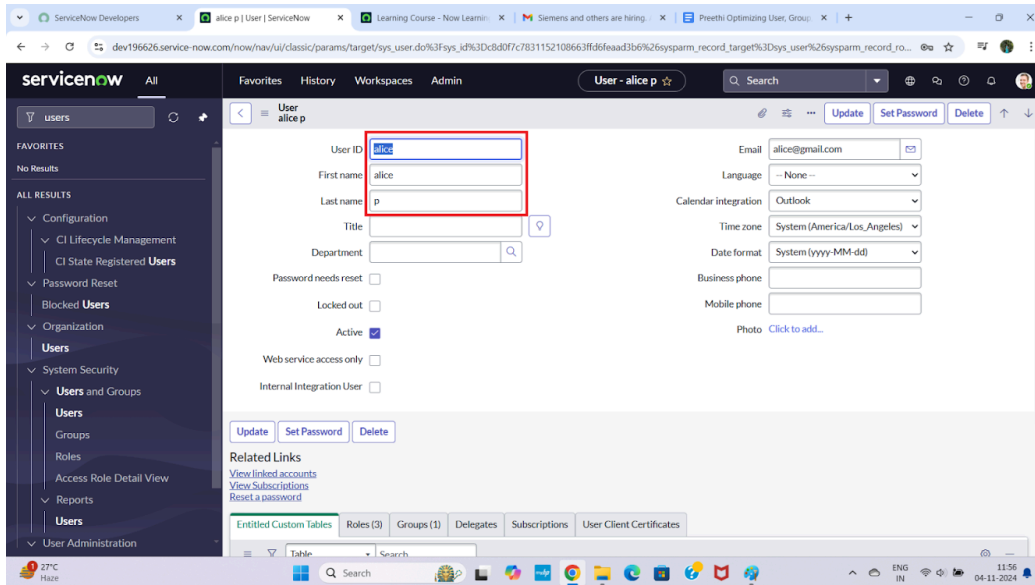
Purpose. :Ensure only authorized users can access sensitive data and systems.Minimize risk of data breaches by applying the principle of least privilege. Improve Operational EfficiencyAutomate user provisioning and de-provisioning.work through predefined workflows and access rules.

USE. :Ensure only the right people can access specific systems, applications, or data based on their roles.Prevent unauthorized access or internal misuse.

ACTIVITY -1. : create Users

STEPS :

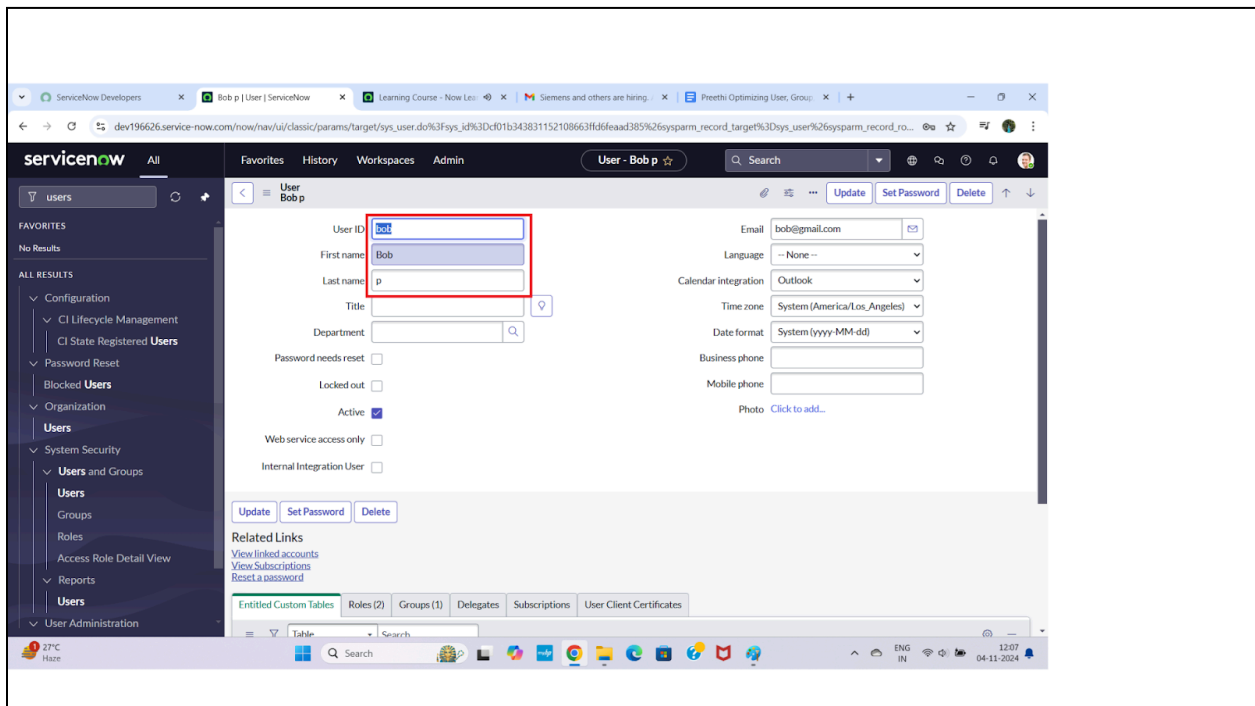
- 1.Open service now
- 2.Click on All >> search for users
- 3.Select Users under system security
- 4.click on new
- 5.Fill the following details to create a
New User
- 6.Click on submit



Create one more user:

9. Create another user with the following.

10. Click on submit



MILESTONE -2: Groups

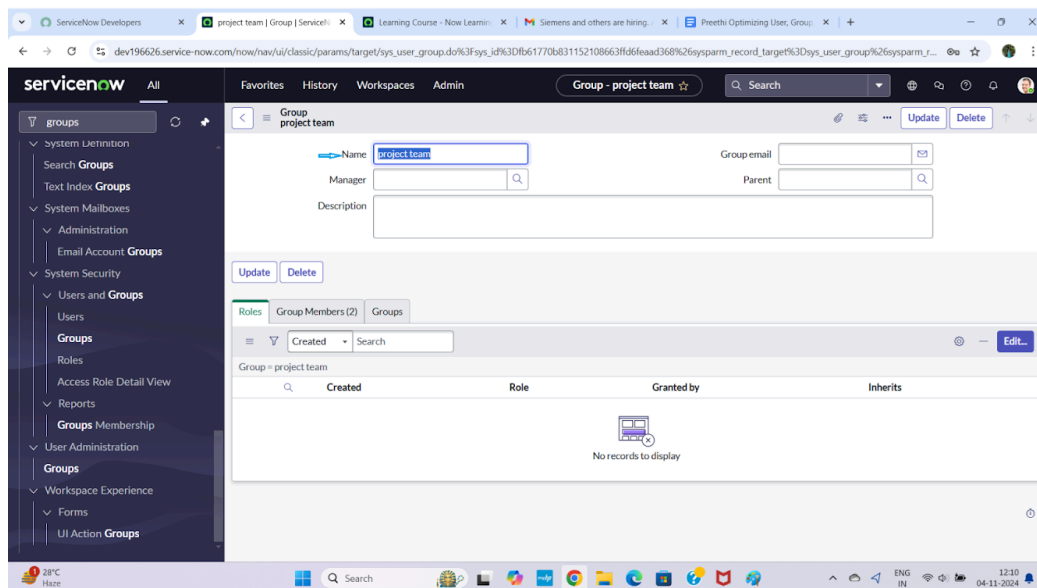
ACTIVITY -1. : Create groups

PURPOSE. :Groups simplify user management by allowing administrators to manage users in bulk

USE. :Groups improve access control by allowing administrators on the user's role or group membership.

STEPS. :

- 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



MILESTONE -3: Roles

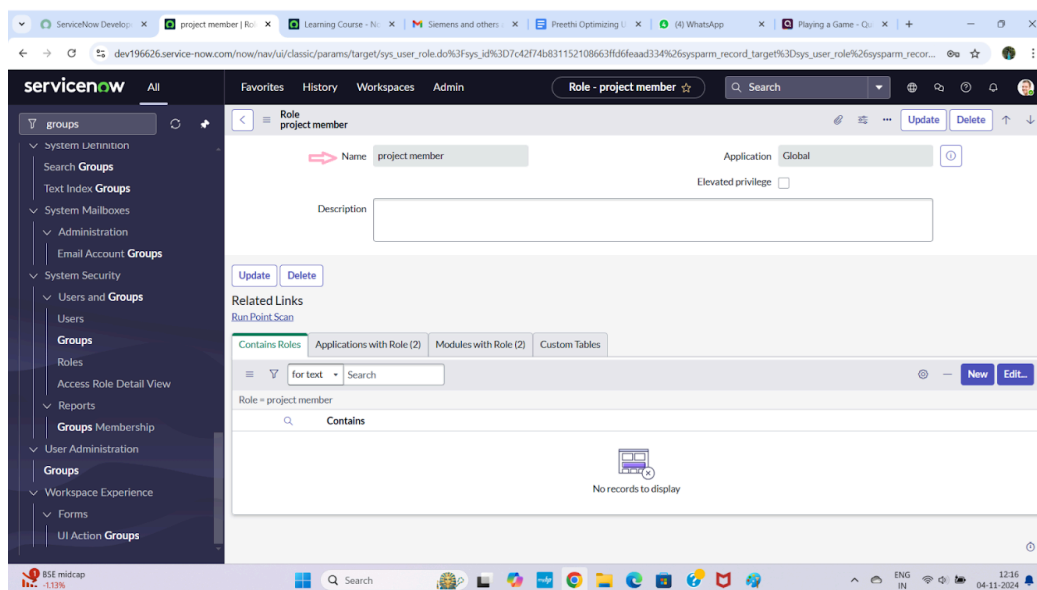
ACTIVITY -1 :create roles

PURPOSE. :A technology stack, or tech stack, refers to the combination of programming languages, frameworks, libraries, and tools used to build and operate a software application or system

USE. :Optimizing user group role management with access control and workflow involves strategically using roles to streamline access to resources and tasks within an organization. This approach, often referred to as Role-Based Access Control (RBAC), significantly enhances security, efficiency, and compliance

STEPS. :

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. : Tables

ACTIVITY -1. :create tables

PURPOSE. : Tables can be used to manage user information, including user IDs, names, and roles

USE. : Tables enhance access control by defining access control rules and specifying which users or groups have access to specific resources.

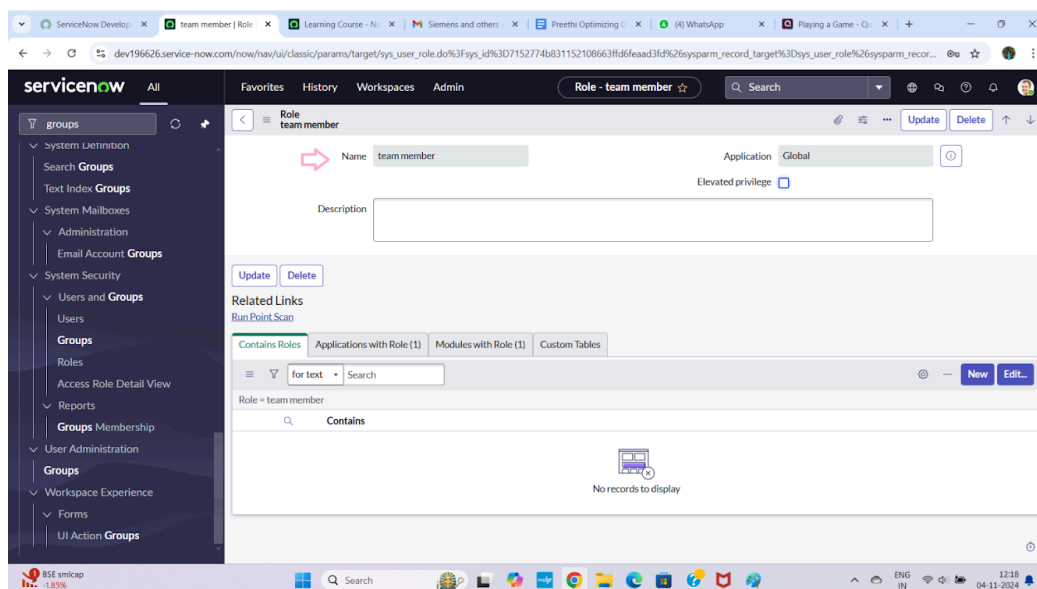
STEPS :

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

Table - New Record

* Name:

Extends table:

Create module: ☒

Create mobile module: ☒

Add module to menu:

New menu name:

Columns | Controls | Application Access

Table Columns: for text | Search

	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

Create one more table

- . Create another table as: task table 2 and fill following details.
- . Click on submit.

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

MILESTONE -5. : Assign users to group

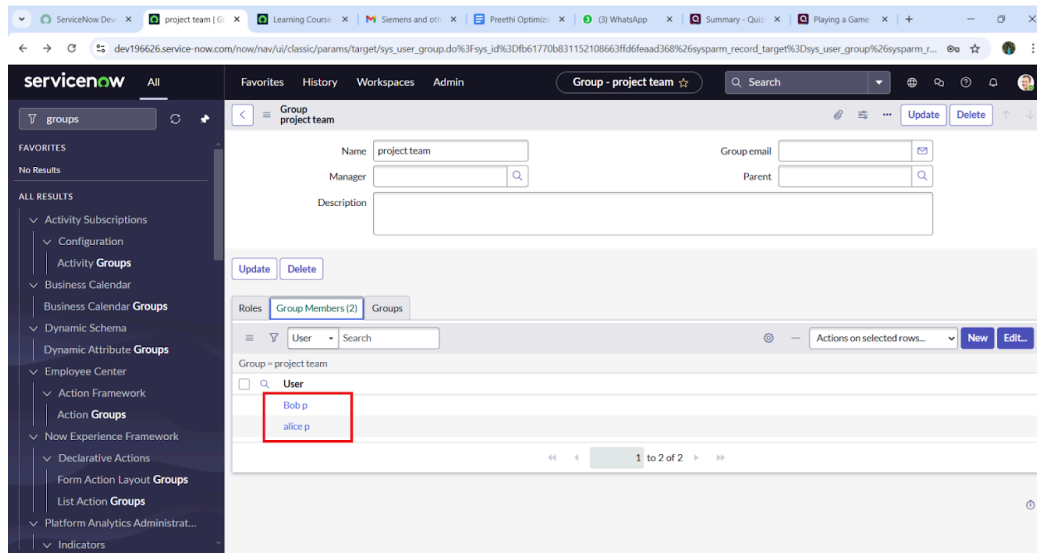
ACTIVITY -1. : Assign users to projectTeamgroups

PURPOSE. : Optimizing user group role management with access control and workflows involves strategically assigning users to groups based on their roles and responsibilities, then implementing access controls to grant appropriate permissions to those groups

USE. : Optimizing user group role management with access control and workflow involves strategically organizing users into groups, defining roles with specific permissions, and implementing workflows to streamline access provisioning.

STEPS. :

- 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

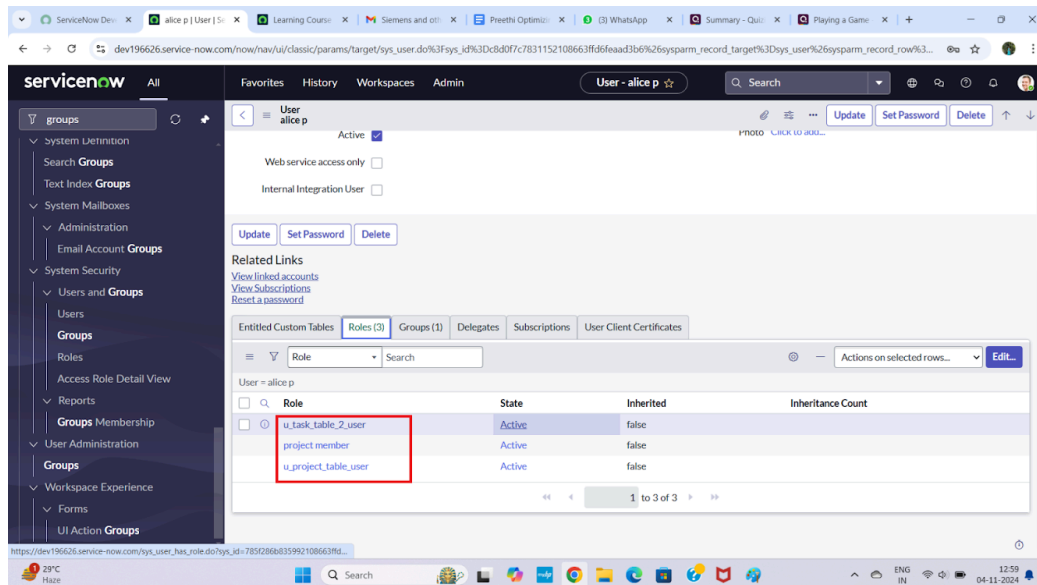
ACTIVITY -1 : Assign roles to Alice users

PURPOSE. :Roles are assigned to users during the user management process, ensuring that users have the necessary permissions and access to perform their job functions.

USE. :Assigning roles to users controls access to resources, ensuring that users only have access to the resources they need to perform their job functions.

STEPS :

- 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 users

STEPS. :

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 to Access to application **PURPOSE. :** Application access controls ensure that users only have access to authorized applications and data, protecting sensitive information from unauthorized access.

USE. : Application access controls are used to manage user access to applications, ensuring that users only have access to the applications they need to perform their job functions

STEPS. :

- 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

The screenshot shows the ServiceNow 'Application Menu - project table' configuration page. The browser address bar displays the URL: `dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D9705334f831152108663ffd6feaad362`. The page title is 'Application Menu - project table'. The configuration form includes the following fields and sections:

- Title:** project table
- Application:** Global
- Active:** ☒
- Roles:** project member (with an edit icon)
- Category:** Custom Applications
- Hint:** (empty text field)
- Description:** (empty text area)

At the bottom of the form, there are 'Update' and 'Delete' buttons. A watermark for 'Activate Windows' is visible in the bottom right corner.

The screenshot displays the ServiceNow configuration page for 'Application Menu - task table 2'. The page includes a header with the ServiceNow logo and navigation tabs. The main content area contains several sections with instructional text and input fields:

- Roles:** A section with the text 'Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.' and a list of roles: 'u_task_table_2_user, project member, team member'.
- Category:** A section with the text 'Specifies the menu category, which defines the navigation menu style. The default value is Custom Applications.' and a dropdown menu set to 'Custom Applications'.
- Hint:** A section with the text 'The text that appears in a tooltip when a user points to this application menu' and an input field.
- Description:** A section with an input field.

At the bottom of the form, there are 'Update' and 'Delete' buttons. The footer of the page shows a table with columns for 'Modules', 'Order', and 'Search', and a 'New' button.

MILESTONE-8 : Access control list

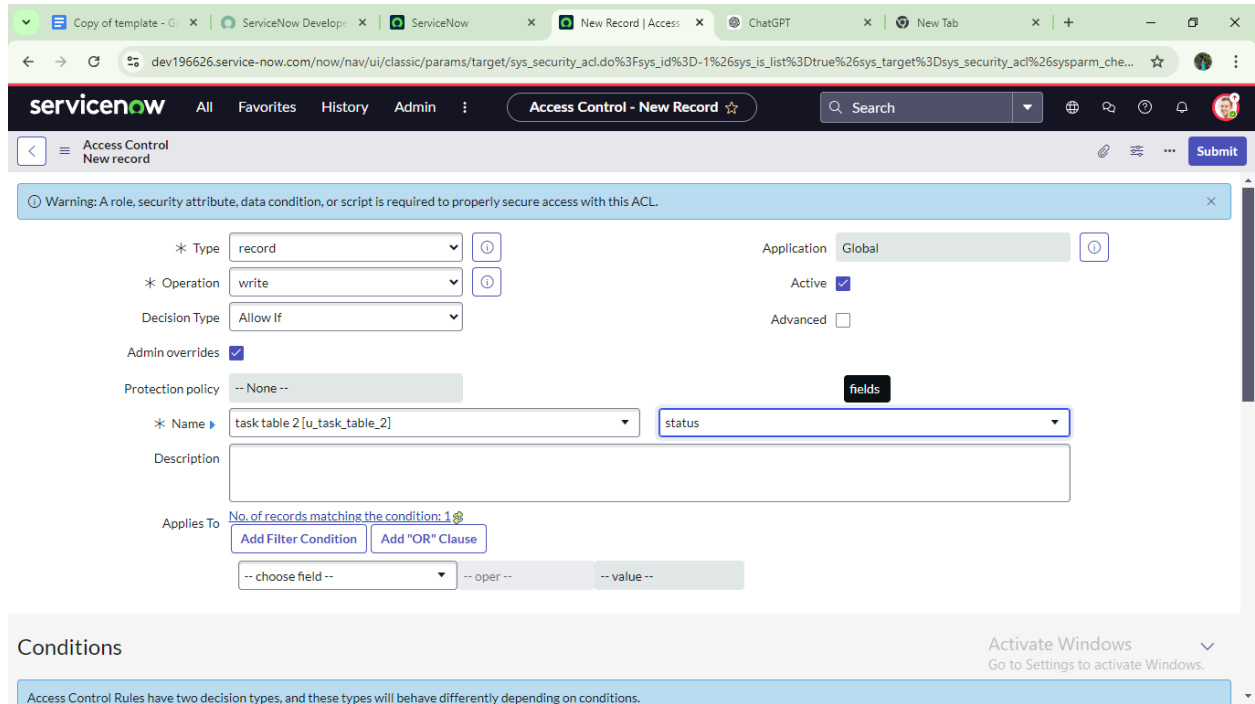
ACTIVITY - 1. : create ACL

PURPOSE. : Optimizing user group role management with access control and workflow access control lists (ACLs).

USE. : Optimizing user group role management with access control and workflow access control lists (ACLs) enhances security and streamlines operations by ensuring users only have access to the resources they need.

STEPS. :

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:

status

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_acl_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

	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.

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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

task id

task name

status

assigned to

comments

due date

MILESTONE-9: Flow

ACTIVITY. : create A flow to assign operations ticket to groups

PURPOSE. : Optimizing user group role management with access control and workflow flow aims to enhance security.

USE. : User group role management with access control and workflow involves creating and managing roles, assigning users to thoseRoles.

STEPS. :

- 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.

MILESTONE-9: Flow

ACTIVITY. : create A flow to assign operations ticket to groups

PURPOSE. : Optimizing user group role management with access control and workflow flow aims to enhance security.

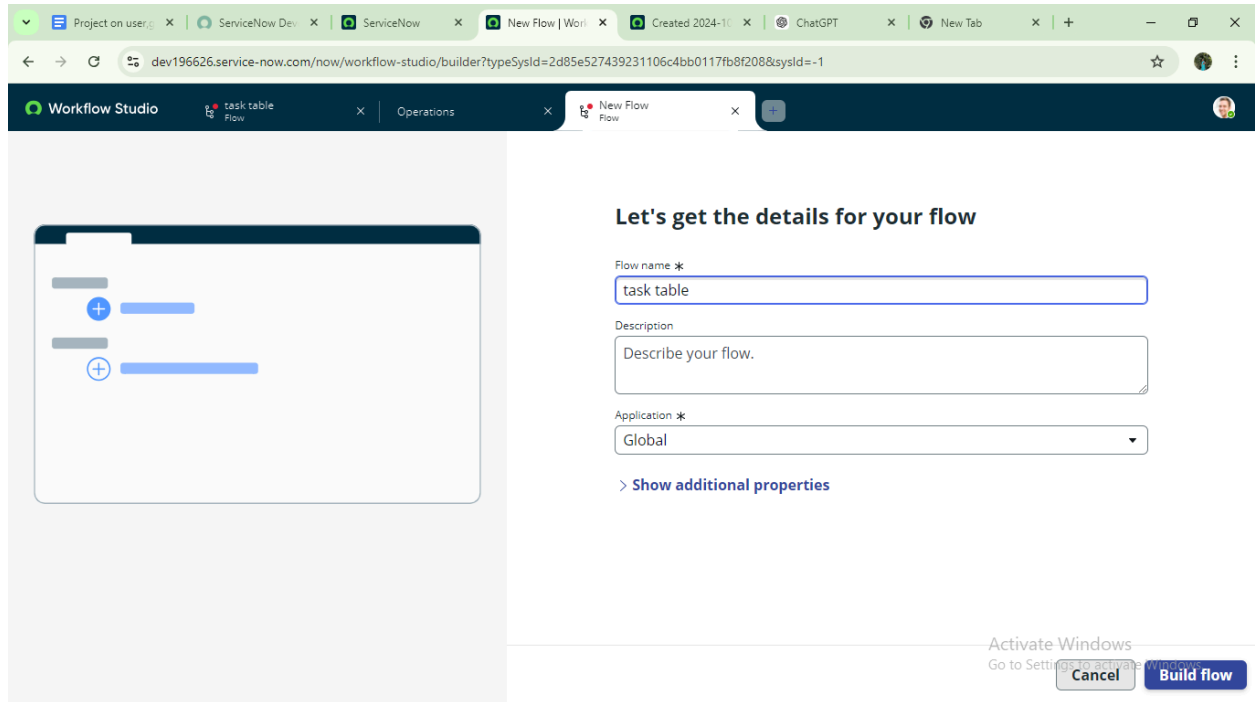
USE. : User group role management with access control and workflow involves creating and managing roles, assigning users to thoseRoles.

STEPS. :

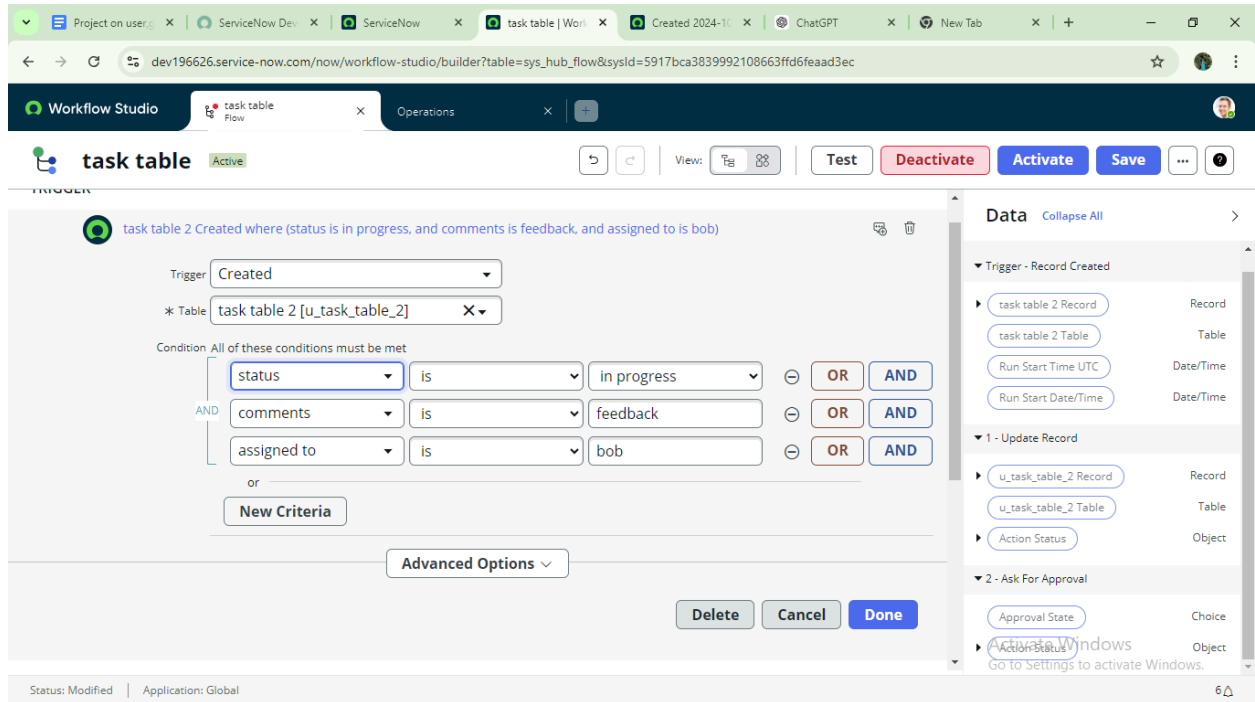
- 1.Open service now.
- 2.Click on All >> search for Flow Designer
- 3.Click on Flow Designer under Process Automation.
- 4.After opening Flow Designer Click on new and select Flow.
- 5.Under Flow properties Give Flow Name as “ task table”.
- 6.Application should be Global.
7. Click build flow.

The screenshot displays the ServiceNow Workflow Studio interface. The top navigation bar includes 'Homepage', 'Operations', and 'Integrations'. Below this, there are tabs for 'Playbooks', 'Flows', 'Subflows', 'Actions', and 'Decision tables'. The 'Flows' tab is active, showing a list of 39 flows. A 'New' dropdown menu is open, showing options for 'Playbook', 'Flow', 'Subflow', 'Action', and 'Decision table'. The 'Flow' option is selected. On the right side, there is a 'Pick up where you left off' section with cards for 'task table', 'Create Flow Data', and 'Steps'. Below this is a 'Latest updates' section showing recent system administrator modifications.

Name	Application	Status	Active	Updated
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09-11 07:08:05
Business process approval flow	Global	Published	true	2020-09-23 04:23:59
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



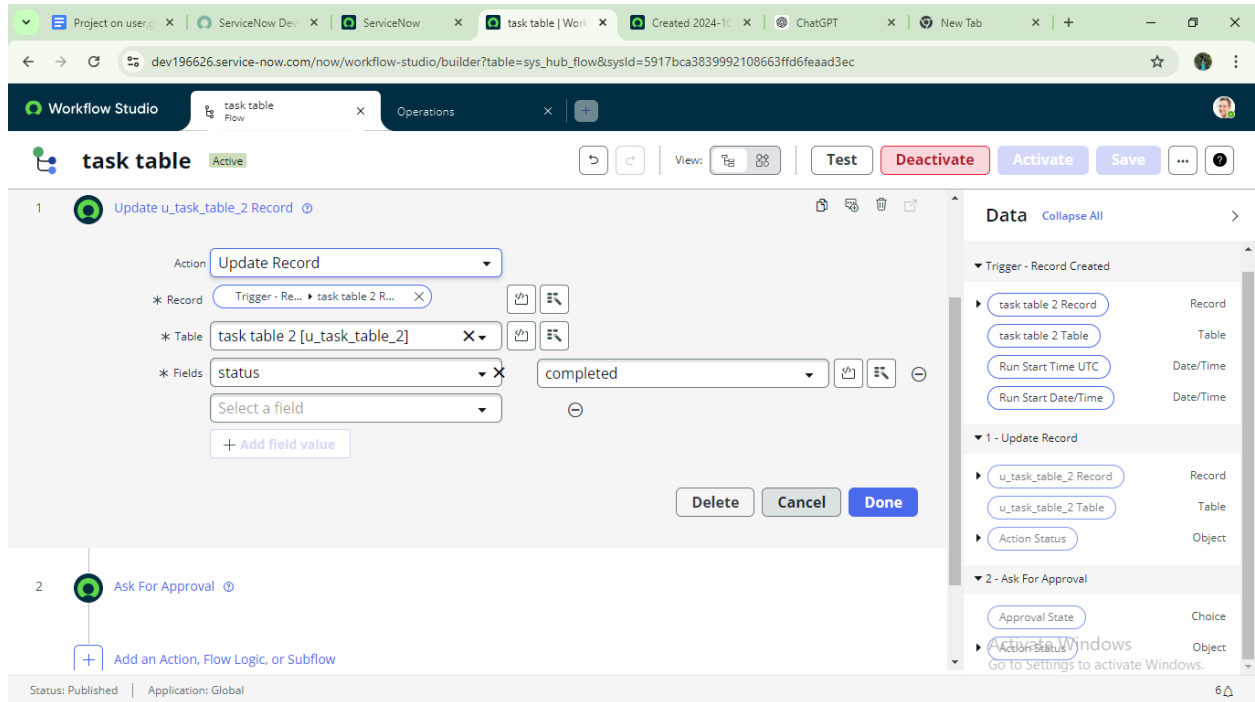
1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress
Field : comments Operator :is Value : feedback
Field : assigned to Operator :is Value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



Next step:

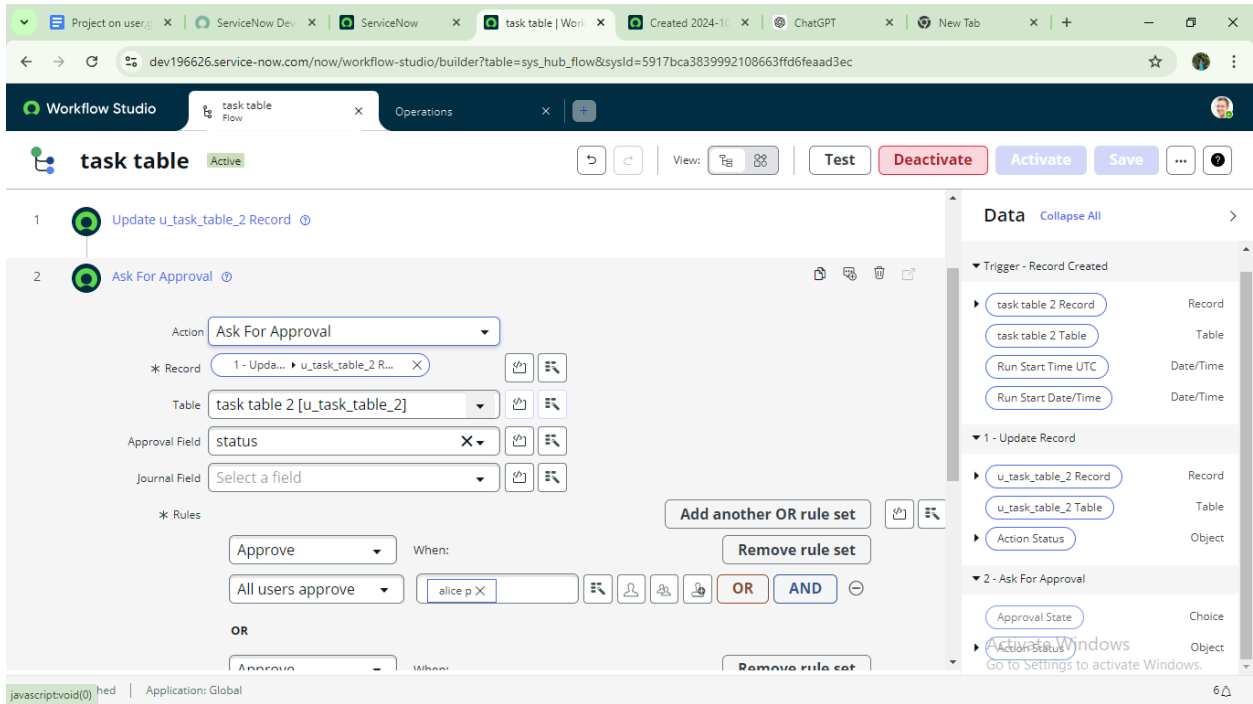
1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”

Click on Done.



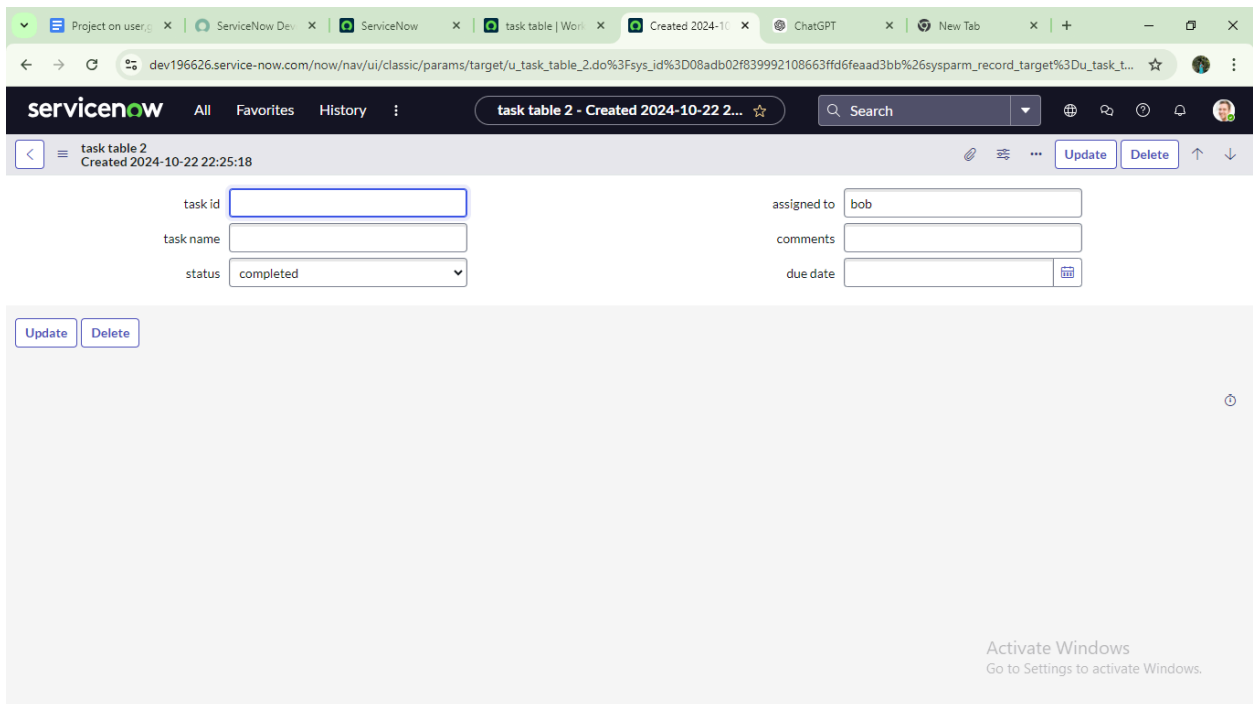
Next step:

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.



1.Go to application navigator search for task table.

2.It status field is updated to completed



Go to application navigator and search for my approval

Click on my approval under the service desk.

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

Project on user...ServiceNow Dev...ServiceNow...task table | Wor...Approvals | Servi...ChatGPT...New Tab...+...-...X

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

servicenowAllFavoritesHistoryWorkspacesApprovalsSearchActions on selected rows...

All

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

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