

OPTIMIZING USER GROUP AND ROLE MANAGEMENT WITH ACCESS CONTROL AND WORKFLOWS

Team ID : NM2025TMID14626

Team Size : 4

Team Leader : Deivanai.D

Team member 1: Kalaivani.M

Team member 2: Gracy.R

Team member 3 : Priyadharshini.D

TEAM INITIALIZATION

Streamlining Ticket Assignment:

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 optimize user group and role management with access control and workflows, organizations should pursue four primary objectives: enhance security, increase operational efficiency, ensure compliance, and improve the user experience. Integrating automated workflows with a robust access control model, such as Role-Based Access Control (RBAC), is critical to achieving these goals.

Milestone 1: Users

Activity 1: Create Users

1. The first thing we need to do to create user is to Open service now.
2. After opening Servicenow we need to Open the instance.
3. Then Click on All present in the menu bar then search for users.
4. Select Users which is present under system security.

5. After selecting Users under system security, Click on new present in the right side top of the screen.
6. The page will appear as shown below with blank spaces
7. Fill the following details given in the figure shown below to create a user.

The screenshot shows the 'User alice p' creation form. The left sidebar contains a navigation menu with 'Users' selected under 'System Security'. The main form has the following fields: User ID (alice), First name (alice), Last name (p), Title, Department, Password needs reset, Locked out, Active (checked), Web service access only, Internal Integration User, Email (alice@gmail.com), Language, Calendar integration (Outlook), Time zone (System (America/Los Angeles)), Date format (System (yyyy-MM-dd)), Business phone, Mobile phone, and Photo (Click to add...). Buttons for 'Update', 'Set Password', and 'Delete' are at the top right. Below the form are 'Related Links' and a tabbed interface with 'Entitled Custom Tables' selected.

8. Then Click on submit to create the user.

Activity 2: Create one more user

1. The instructions given above are the same for creating another user.
2. Fill the following details given in the figure shown below to create another user.

The screenshot shows the 'User Bob p' creation form. The left sidebar contains a navigation menu with 'Users' selected under 'System Security'. The main form has the following fields: User ID (Bob), First name (Bob), Last name (p), Title, Department, Password needs reset, Locked out, Active (checked), Web service access only, Internal Integration User, Email (bob@gmail.com), Language, Calendar integration (Outlook), Time zone (System (America/Los Angeles)), Date format (System (yyyy-MM-dd)), Business phone, Mobile phone, and Photo (Click to add...). Buttons for 'Update', 'Set Password', and 'Delete' are at the top right. Below the form are 'Related Links' and a tabbed interface with 'Entitled Custom Tables' selected.

3. Then Click on submit to complete the creation.

Milestone 2: Groups

Activity 1: Create Groups

1. The first step is to Open service now.
2. Then Click on All menu option and search for groups in it.
3. Select groups which is present under system security.
4. Then Click on new option present in right top corner of the screen.

5. Fill the following details given in the figure to create a new group.

6. Finally Click on submit present in the top right cover of the screen.

Milestone 3: Roles

Activity 1: Create Roles

1. The first step is to Open service now.
2. Then Click on All menu and search for roles in it.
3. Select roles which is present under system security.
4. In that page Click on new to open a new page to create role.
5. The using the figure given Fill the following details to create a new role

6. Then finally Click on submit to complete the process.

Activity 2: Create another Roles

1. To Create another role follow the same instruction to open new page.
2. The with the help of the figure, fill the details of the role to be created.

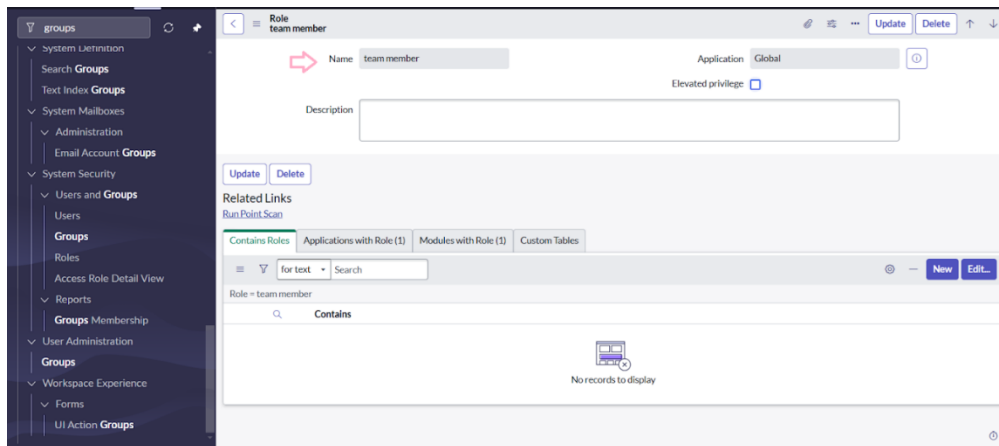
The screenshot shows a web-based configuration interface for creating a role. On the left is a sidebar menu with categories like 'system User/permission', 'System Mailboxes', 'Administration', 'System Security', 'Users and Groups', 'Reports', 'User Administration', 'Workspace Experience', and 'Forms'. The main area is titled 'Role project member'. It contains a form with the following fields: 'Name' (pre-filled with 'project member'), 'Application' (pre-filled with 'Global'), and 'Description' (empty). There are 'Update' and 'Delete' buttons above the 'Description' field. Below the form is a 'Related Links' section with four tabs: 'Contains Roles' (selected), 'Applications with Role (2)', 'Modules with Role (2)', and 'Custom Tables'. Under the 'Contains Roles' tab, there is a search bar and a table. The table has a header 'Role = project member' and a single row with the value 'project member'. Below the table, it says 'No records to display'.

3. Then Click on submit to complete creating the role with name Platform_role

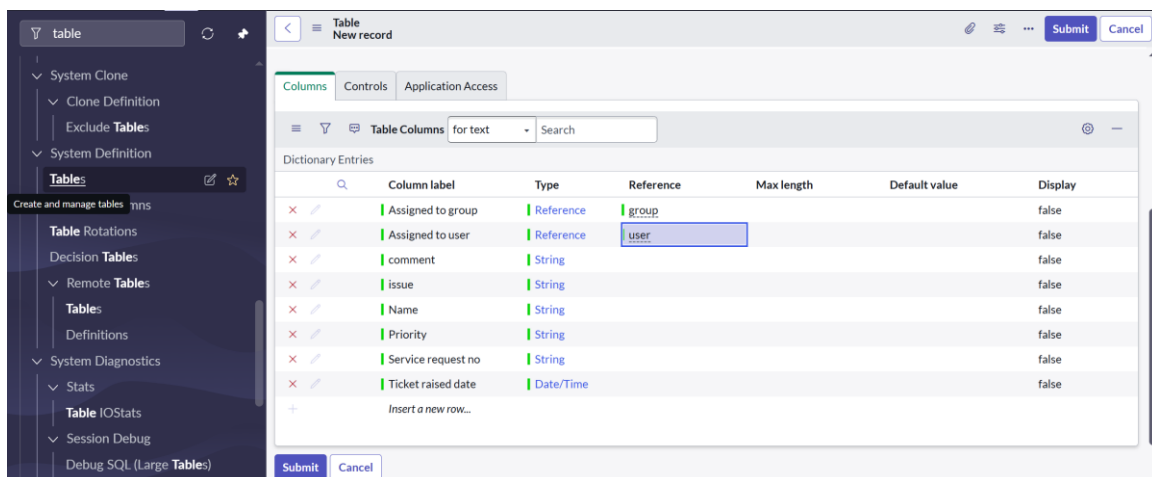
Milestone 4: Table

Activity: Create Table

1. First Open service now instances.
2. Then Click on All menu and search for tables in it.
3. In that Select tables which is present under system definition.
4. After opening tables, Click on new to create new table.
5. Fill the following details to create a new table.
 - Label : project table
 - Check the boxes Create module & Create mobile module
 - Under new menu name : project table



6. In the below we can see column option for the created table. Give columns as shown in the figure below



7. Click on submit to complete creating the table.

8. Create choices for the issue filed by using form design

Choices are:

- Unable to login to platform
- 404 error
- Regarding certificates
- Regarding user expired

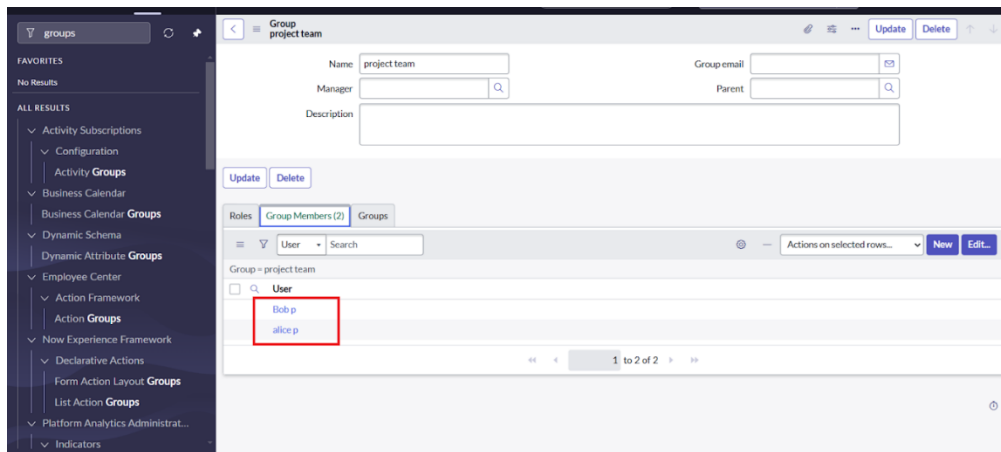
Milestone 5: Assign users to groups

Activity 1: Assign users to project team group

1. Open service now.

2. Click on All >> search for groups

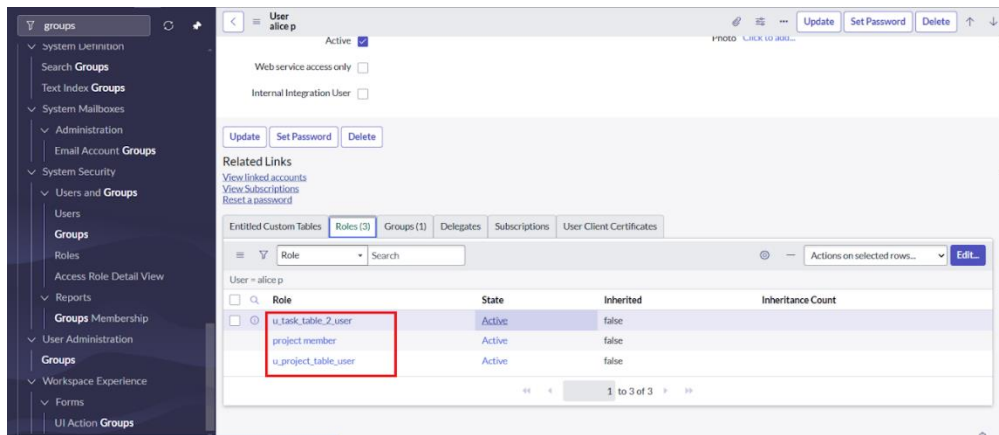
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save



Milestone 6: Assign role to user

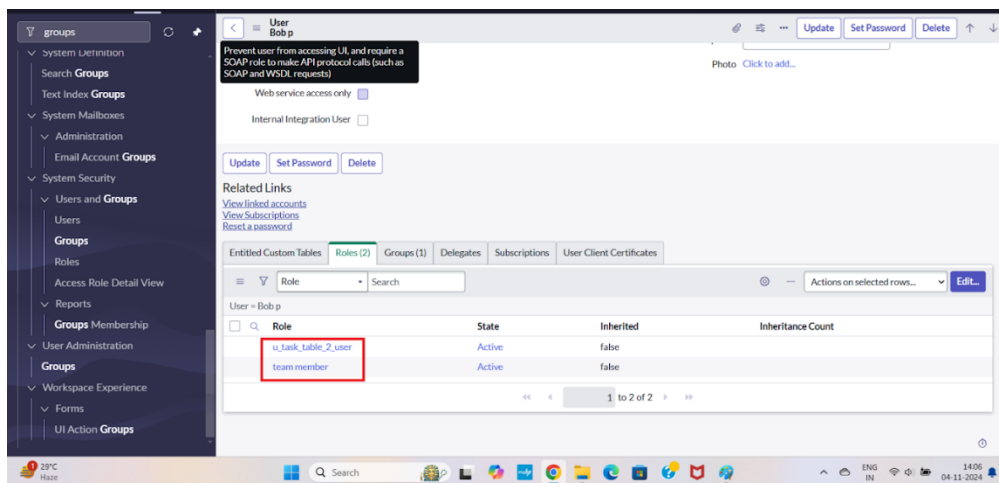
Activity 1: Assign roles to alice user

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

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Application Menu
project 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

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

UpdateDelete


Activate Windows
Go to Settings to activate Windows.

Application Menu
task table 2

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_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:

Activate Windows
Go to Settings to activate Windows.



Modules Order Search   Actions on selected rows...


Milestone 8: Create ACL


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
6. Fill the following details to create a new ACL

Access Control
New record


 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

Admin overrides ☒

Protection policy: -- None -- 

* Name: task table 2 [u_task_table_2] status

Description:

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

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

Conditions

Activate Windows
Go to Settings to activate Windows.

Access Control Rules have two decision types, and these types will behave differently depending on conditions.

1. Scroll down under requires role

2. Double click on insert a new row
3. Give task table and team member role
4. Click on submit
5. Similarly create 4 acl for the following fields

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

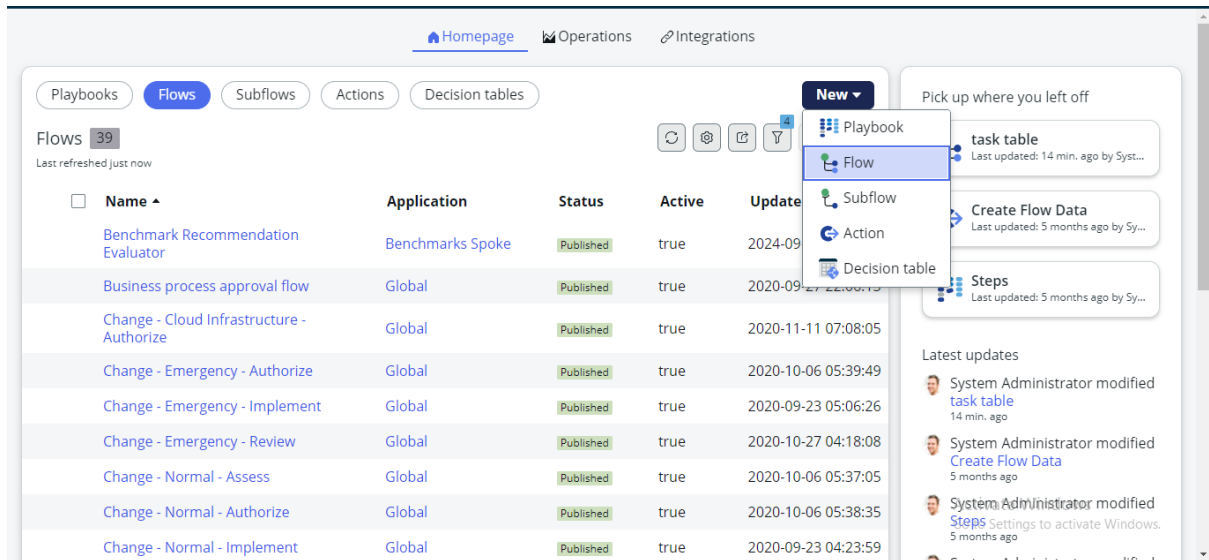
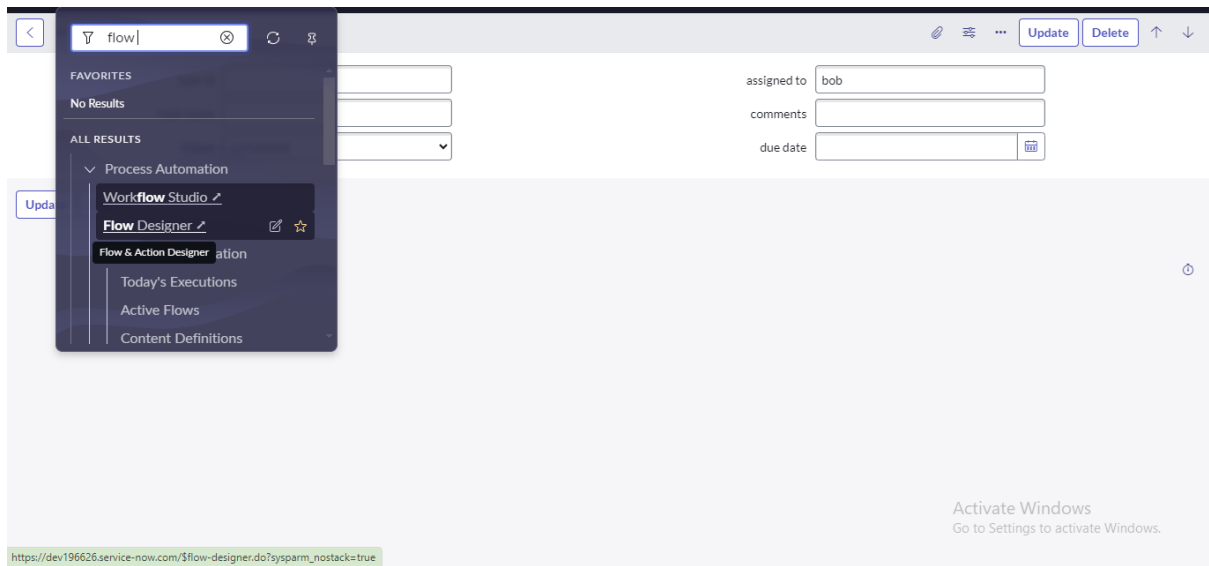
1

to 20 of 23

Activate Windows

Go to Settings to activate Windows.

6. Click on profile on top right side
7. Click on impersonate user
8. Select bob user
9. Go to all and select task table2 in the application menu bar
10. Comment and status fields are have the edit access



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Let's get the details for your flow

Flow name *

task table

Description

Describe your flow.

Application *

Global

> Show additional properties

Activate Windows

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.

task table

Active

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View:

Te

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Test

Deactivate

Activate

Save

...

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

Trigger: Created

* Table: task table 2 [u_task_table_2]

Condition All of these conditions must be met

status is in progress

AND

comments is feedback

AND

assigned to is bob

or

New Criteria

Advanced Options

Delete

Cancel

Done

Data Collapse All

Trigger - Record Created

task table 2 Record

task table 2 Table

Run Start Time UTC

Run Start Date/Time

1 - Update Record

u_task_table_2 Record

u_task_table_2 Table

Action Status

2 - Ask For Approval

Approval State

Action Status

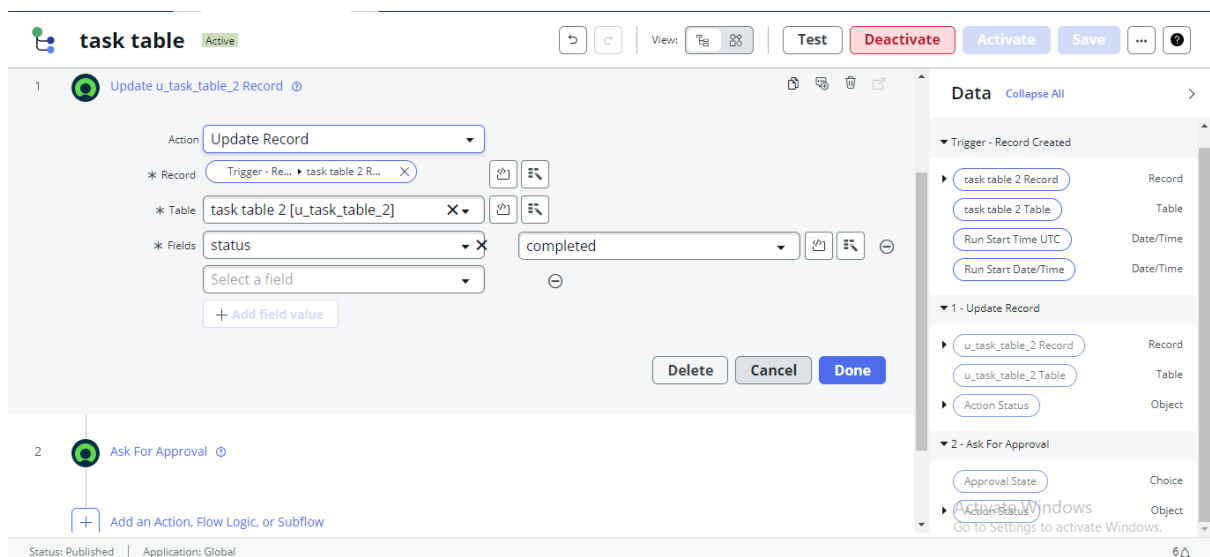
Go to Settings to activate Windows.

Status: Modified | Application: Global

6

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.

task table

Active

View: [Icons]

Test

Deactivate

Activate

Save

[More]

[Help]

1 Update u_task_table_2 Record

2 Ask For Approval

Action: Ask For Approval

* Record: 1 - Update u_task_table_2 Record

Table: task table 2 [u_task_table_2]

Approval Field: status

Journal Field: Select a field

* Rules: Approve When: All users approve

alice p

OR

AND

Add another OR rule set

Remove rule set

Data

Collapse All

Trigger - Record Created

task table 2 Record

task table 2 Table

Run Start Time UTC

Run Start Date/Time

1 - Update Record

u_task_table_2 Record

u_task_table_2 Table

Action Status

2 - Ask For Approval

Approval State

Activate Windows

Go to Settings to activate Windows.

javascript:void(0) hed | Application: Global

6

9.Go to application navigator search for task table.

10.It status field is updated to completed

task table 2

Created 2024-10-22 22:25:18

Update

Delete

task id

task name

status

completed

assigned to

bob

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

Approvals

Created

Search

Actions on selected rows...

All

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

Go to Settings to activate Windows.

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.