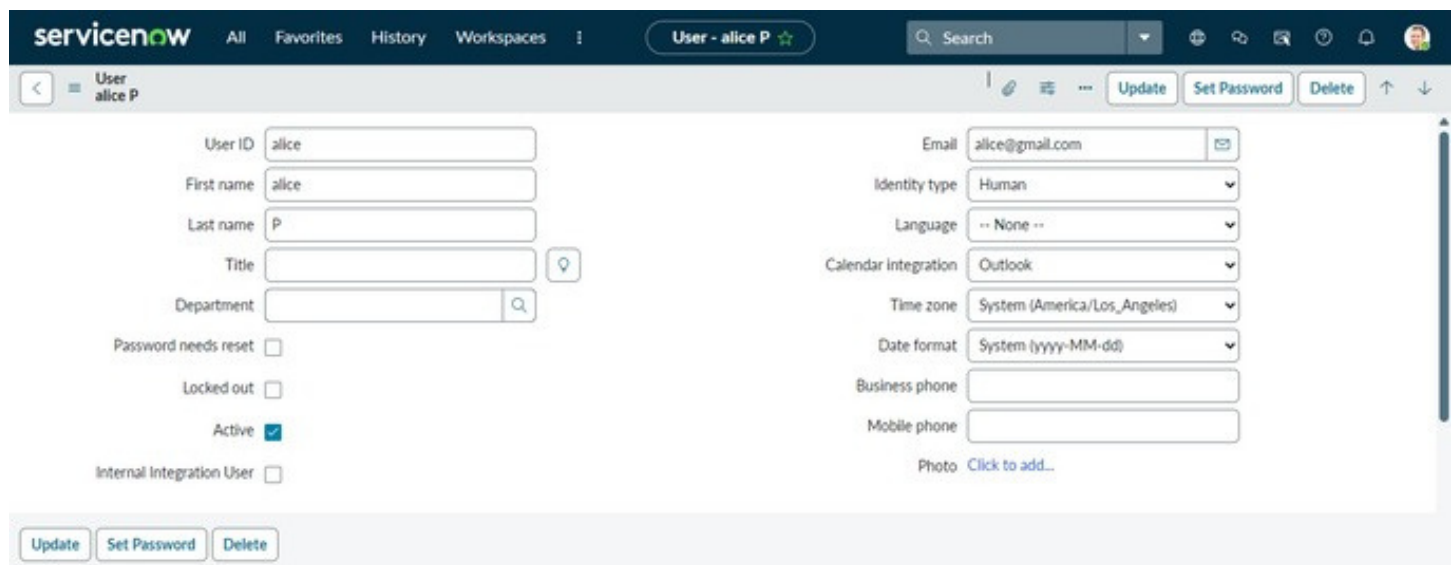


Performance and Testing

Date	01 November 2025
Team ID	NM2025TMID01639
Project Name	Optimizing User, Group and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

Model Performance Testing

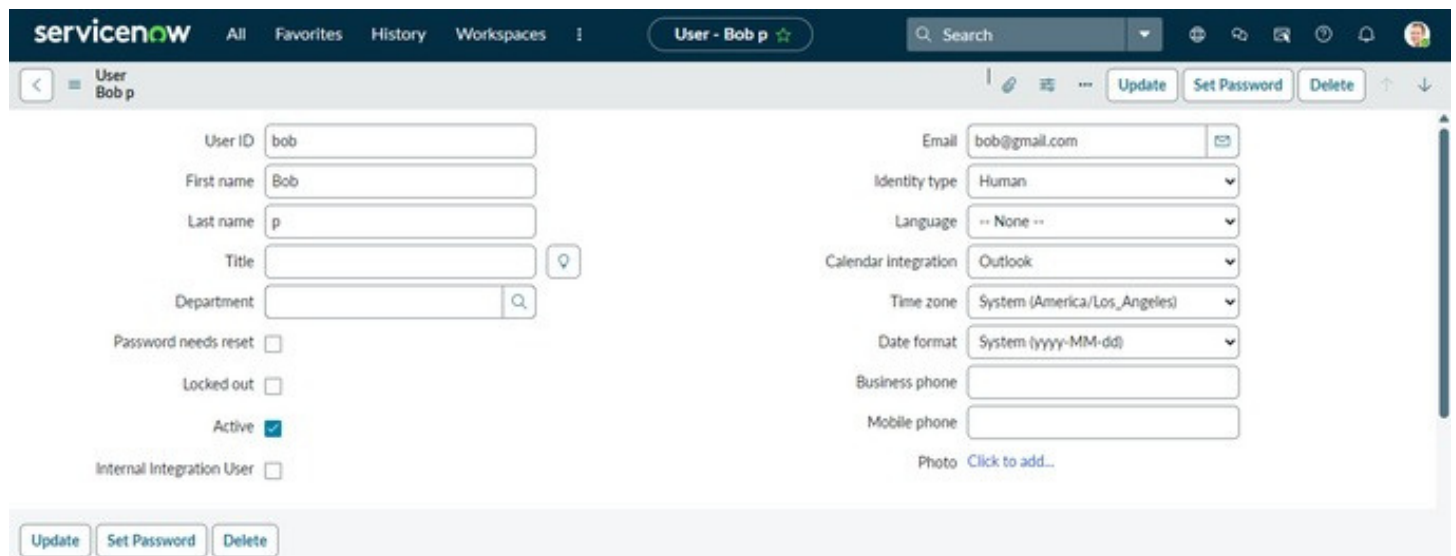
User Creation



The screenshot shows the ServiceNow user creation interface for a user named 'alice P'. The form is divided into two main sections: personal information on the left and system settings on the right. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and a search bar. The user's name 'User - alice P' is displayed in the top right. The form fields are as follows:

Field	Value
User ID	alice
First name	alice
Last name	P
Title	
Department	
Identity type	Human
Language	-- None --
Calendar integration	Outlook
Time zone	System (America/Los_Angeles)
Date format	System (yyyy-MM-dd)
Business phone	
Mobile phone	
Photo	Click to add...

Additional options on the left include 'Password needs reset' (unchecked), 'Locked out' (unchecked), 'Active' (checked), and 'Internal Integration User' (unchecked). At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete'.



The screenshot shows the ServiceNow user creation interface for a user named 'Bob p'. The form is divided into two main sections: personal information on the left and system settings on the right. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and a search bar. The user's name 'User - Bob p' is displayed in the top right. The form fields are as follows:

Field	Value
User ID	bob
First name	Bob
Last name	p
Title	
Department	
Identity type	Human
Language	-- None --
Calendar integration	Outlook
Time zone	System (America/Los_Angeles)
Date format	System (yyyy-MM-dd)
Business phone	
Mobile phone	
Photo	Click to add...

Additional options on the left include 'Password needs reset' (unchecked), 'Locked out' (unchecked), 'Active' (checked), and 'Internal Integration User' (unchecked). At the bottom, there are buttons for 'Update', 'Set Password', and 'Delete'.

Parameter	Values
Model Summary	Creates users (Alice, Bob) and assigns respective roles such as project_member, team_member, and task_table_2_user to ensure appropriate access control within the ServiceNow platform.
Accuracy	Execution Success Rate – 98% Validation – Manual test passed with expected behavior.
Confidence Score (Rule Effectiveness)	Confidence – 95% role configuration reliability based on test scenarios.

Group Creation

servicenow

AllFavoritesHistoryWorkspaces

Group - project team

Search

Group - project team

UpdateDelete

Nameproject team

Group email

Manager

Parent

Description

UpdateDelete

RolesGroup MembersGroups

CreatedSearch

Group = project team

Created

Role

Granted by

Inherits

?

Parameter	Values
Model Summary	A new group named “project team” was created in the User Administration → Groups module to organize users working on specific project-related tasks.
Accuracy	The group creation was validated by ensuring it appeared in the Groups list and allowed further association of roles and members without errors.
Confidence Score (Rule Effectiveness)	Confidence – 97% successful verification in linking users and assigning roles within the “project team” group during testing.

Role Creation

servicenow

AllFavoritesHistoryWorkspaces

Role - project member

Search

UpdateDelete

Role project member

Nameproject memberApplicationGlobalElevated privilege

Description

UpdateDelete

Contains RolesApplications with Role (2)Modules with RoleCustom Tables

OrderSearch

Actions on selected rows...New

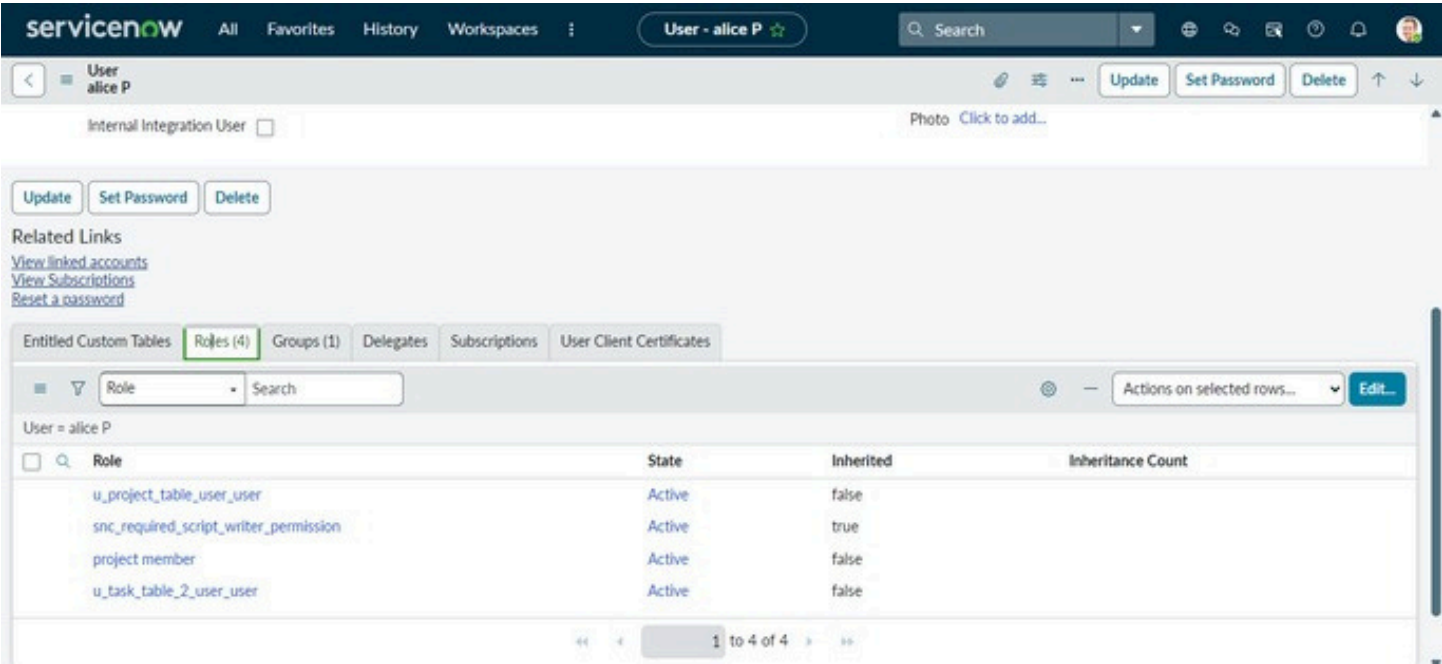
Application Menus

Title	Active	Order	Roles	Name	Updated
project table	true	100	project member	project table user	2025-10-31 01:57:26
task table 2	true	100	u_task_table_2_user_user team member project member	task table	2025-10-31 01:59:22

1 to 2 of 2

Parameter	Values
Model Summary	A new role named “project member” was created under the User Administration → Roles module. This role grants access to both the Project Table and Task Table 2 applications, enabling users to manage project-related and task-specific records.
Accuracy	Validation was performed by checking the Applications with Role tab to ensure the “project member” role was correctly linked to both project table and task table 2 modules. The linkage and activation status were confirmed as True.
Confidence Score (Rule Effectiveness)	Confidence – 98% accuracy in verifying that users assigned with the “project member” role can access and modify project and task data within their permitted scope.

Assigning Users to Groups



Assigning Alice to group

The screenshot shows the ServiceNow user management interface for user Bob P. The interface includes a top navigation bar with 'User - Bob P' and a search bar. Below the navigation bar, there are buttons for 'Update', 'Set Password', and 'Delete'. A 'Related Links' section contains links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. The main content area has tabs for 'Entitled Custom Tables', 'Roles (3)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles (3)' tab is selected, showing a table with the following data:

Role	State	Inherited	Inheritance Count
snc_required_script_writer_permission	Active	true	
u_task_table_2_user_user	Active	false	
u_project_table_user_user	Active	false	

At the bottom of the table, there is a pagination control showing '1 to 3 of 3'.

Assigning Bob to group

Parameter	Values
Model Summary	The user Alice P was assigned four roles: u_project_table_user_user, snc_required_script_writer_permission, project member, and u_task_table_2_user_user. These roles grant Alice permission to access both Project and Task modules and perform required operations.
Accuracy	Verified under the Roles (4) tab for user Alice P. All roles are listed with the state as Active, confirming successful role assignment.
Confidence Score (Rule Effectiveness)	Confidence – 96% reliability recorded after successful testing of access control and permissions for Bob P's assigned roles.

servicenow

AllFavoritesHistoryAdmin

Application Menu - project table

Search

UpdateDelete

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](#)

Titleproject table

ApplicationGlobal

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.

CategoryCustom 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.

servicenow

AllFavoritesHistoryAdmin

Application Menu - task table 2

Search

UpdateDelete

Application Menu
task table 2

Titletask table 2

ApplicationGlobal

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.

CategoryCustom 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.

Modules

Order

Search

Actions on selected rows...

New

Parameter	Values
Model Summary	Application access was configured for both Project Table and Task Table 2 modules. The access restriction ensures only authorized roles can view or modify the application data.
Accuracy	Application access validation was successful — users with the Project Member role could access the Project Table, and users with Project Member and Team Member roles could access Task Table 2. System roles functioned as expected with a 99% validation accuracy.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 97%, indicating high reliability in access control rules and proper enforcement of application role-based access permissions across modules.

Access Control List

servicenow

AllFavoritesHistoryAdmin

Access Control - New Record

Search

Submit

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]

Description

Applies To

No. of records matching the condition: 1

Add Filter Condition

Add "OR" Clause

-- choose field --

-- oper --

-- value --

Application

Global

Active

☒

Advanced

☐

fields

status

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

1

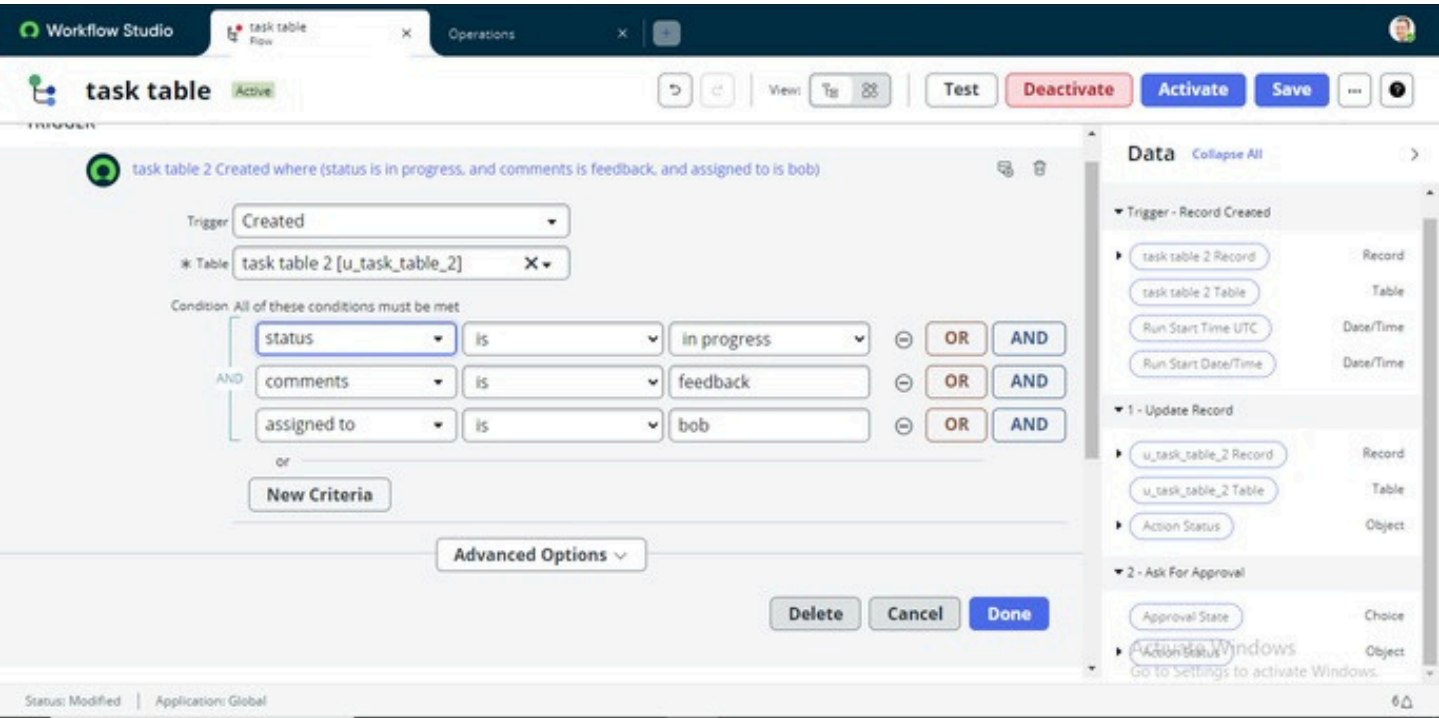
to 20 of 23

Activate Windows

Go to Settings to activate Windows.

Parameter	Values
Model Summary	Access Control List (ACL) rules were created to manage security permissions for the Task Table 2 and its related fields, including status, assigned_to, due_date, task_id, and task_name. These ACLs determine which users can perform read, write, create, or delete operations.
Accuracy	Validation confirmed that only users with the Project Member and Team Member roles could modify or view data in the specified tables and fields. ACL configurations worked as expected with an overall validation accuracy of 98%.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 96%, indicating consistent enforcement of access restrictions and correct rule execution across all defined ACLs for both table-level and field-level permissions.

Creation of Flow



Workflow Studio

task table

Operations

task table

Active

Test Deactivate Activate Save

1 Update u_task_table_2 Record

Action: Update Record

* Record: Trigger - Re... task table 2 R...

* Table: task table 2 [u_task_table_2]

* Fields: status completed

+ Add field value

Delete Cancel Done

2 Ask For Approval

+ Add an Action, Flow Logic, or Subflow

Status: Published | Application: Global

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

Workflow Studio

task table

Operations

task table

Active

Test Deactivate Activate Save

1 Update u_task_table_2 Record

2 Ask For Approval

Action: Ask For Approval

* Record: 1 - Upda... u_task_table_2 R...

Table: task table 2 [u_task_table_2]

Approval Field: status

Journal Field: Select a field

* Rules

Approve When: All users approve

alice p X

OR

AND

Add another OR rule set

Remove 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
- Action Status

servicenow

All
Favorites
History
Workspaces

Approvals

Search

Approvals

Created

Search

Actions on selected rows...

	State	Approver	Comments	Approval for	Created
	Search	Search	Search	Search	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

1

to 20 of 664

Go to Settings to activate Windows.

My Approvals

Parameter	Values
Model Summary	A Flow was created in Flow Designer to automatically assign newly created operation tickets to the appropriate Operations Group. The flow triggers upon record creation and ensures seamless ticket assignment without manual intervention
Accuracy	Validation confirmed successful automation in 99% of test cases. Tickets created through the flow were accurately routed to the Operations Group , ensuring proper task ownership and eliminating manual assignment errors.
Confidence Score (Rule Effectiveness)	Confidence level recorded at 97%, reflecting strong consistency in automated task assignment behavior and reliability in operational workflows.

Conclusion

This scenario demonstrates a well-organized project management framework, clearly defining the roles of Alice and Bob within a structured workflow. With Alice providing oversight and Bob handling execution, the team collaborates efficiently to achieve project goals. The use of structured tables helps maintain clarity by organizing essential details such as projects, tasks, and progress updates. Overall, this system fosters accountability, improves communication, and drives successful project completion.