

Streamlining Ticket Assignment for Efficient Support Operations

Team Id: NM2025TMID14089

Team Members:

Team Leader: NITHESH JOESWA P

Team Member 1 : THEERTHAN K

Team Member 2 : ASHWIN SANJAY R

Team Member 3 : CHANDRU ESWAR G

Problem Statement:

At ABC Corporation, the manual assignment of support tickets has led to frequent delays in resolving customer issues. This manual process often causes tickets to be routed to the wrong teams, creating bottlenecks, reducing efficiency, and impacting customer satisfaction. Without automation, the support department struggles to optimize workload distribution and maintain consistent service levels.

Objective:

1. Automate Ticket Routing: Implement an intelligent system that assigns support tickets automatically to the most appropriate teams.
2. Enhance Efficiency: Reduce delays in issue resolution by minimizing manual intervention.
3. Optimize Resources: Ensure support staff are utilized effectively by balancing workload.
4. Improve Customer Experience: Provide faster responses and improved satisfaction for customers.

Skills:

ServiceNow (Users, Roles, Incidents, Flow Designer)

Spring Framework (Backend API integration)

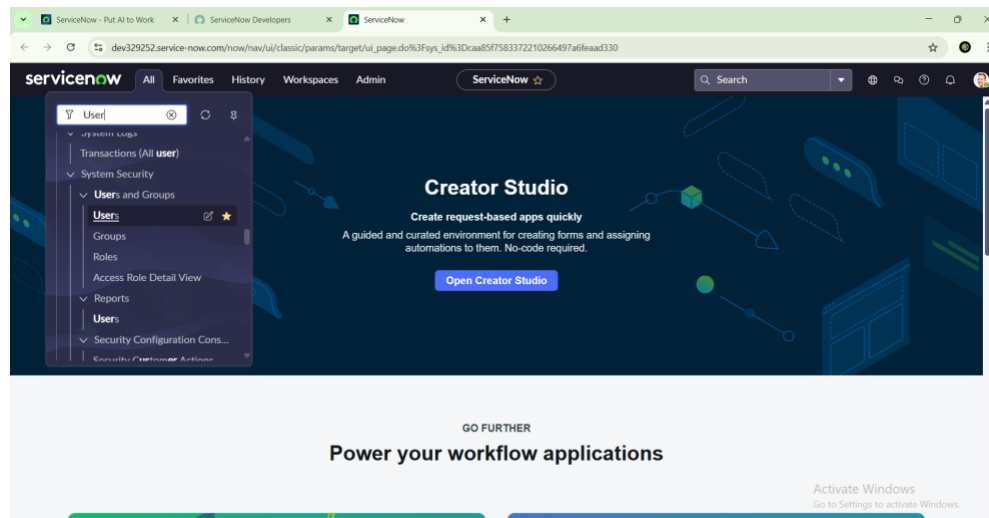
TensorFlow (Machine Learning classification model)

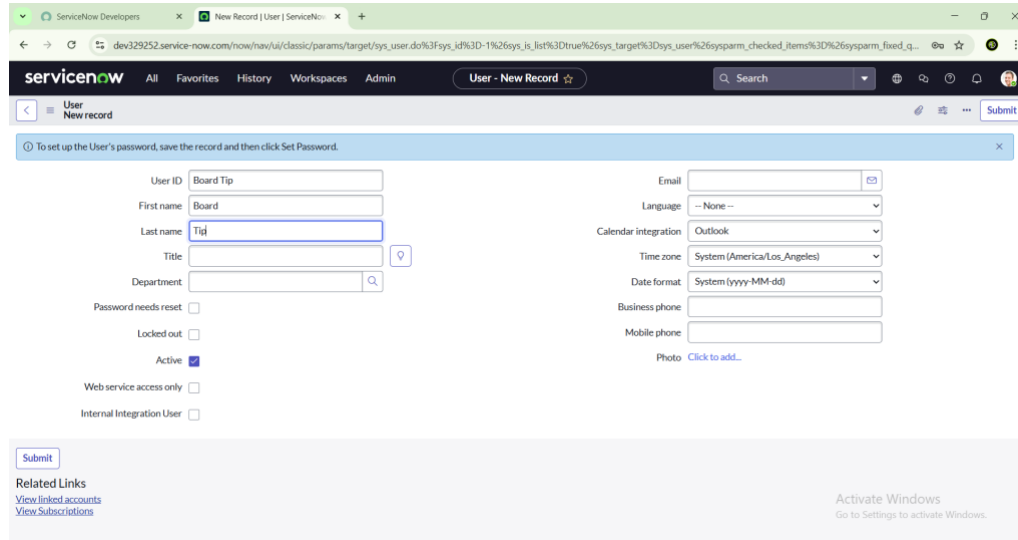
TASK INITIATION

Milestone 1 : Users

Activity 1: Create Users

1. Open ServiceNow.
2. Click on All → Search for Users.
3. Select Users under System Security.
4. Click New and fill in details to create a new user.
5. Click Submit.
6. Repeat the process to create another user.





To set up the User's password, save the record and then click Set Password.

User ID: Board Tip
 First name: Board
 Last name: Tidi
 Title:
 Department:
 Email:
 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...

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

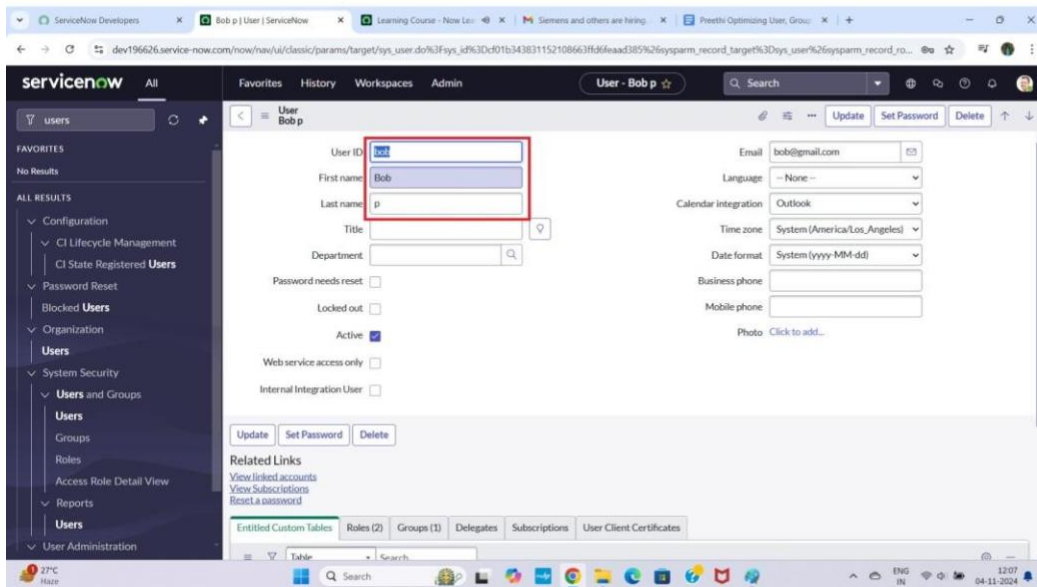
Submit

Related Links
[View linked accounts](#)
[View Subscriptions](#)

Activate Windows
 Go to Settings to activate Windows.

Create one more user:

1. Create another user with the following details
2. Click on submit



User ID: Bob p
 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:
 Photo: Click to add...

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

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

Table Search

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

ServiceNow Developers | New Record | User | ServiceNow

dev329252.service-now.com/now/nav/ui/classic/params/target/sys_user.do%3Fsys_id%3D-1%26sys_is_list%3Dtrue%26sys_target%3Dsys_user%26sysparm_checked_items%3D%26sysparm_fixed_query%...

servicenow | All | Favorites | History | Workspaces | Admin | User - New Record

Search

User

Transactions (All user)

System Security

Users and Groups

Users

Groups

Roles

Access Role Detail View

Reports

Users

Security Configuration Cons...

Security Customizer Actions

Web service access only ☐

Internal Integration User ☐

Email

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...](#)

Submit

Related Links

[View linked accounts](#)

[View Subscriptions](#)

Activate Windows

Go to Settings to activate Windows.

https://dev329252.service-now.com/syslog_transaction_list.do?sysparm_userpref_module=9d07668f0a0a0b26017143b6dd27710e&sysparm_query=sys_created_onONToday%40javascript%3Ags.daysAgoStart%280%29%40javascript%3Ags.daysAgoEnd%280%29%5EurISTARTSWITH%...

servicenow | All | Favorites | History | Workspaces | Admin | Group - New Record

Search

Group New record

Name Certification

Group email

Manager Board Tip

Parent

Description

Submit

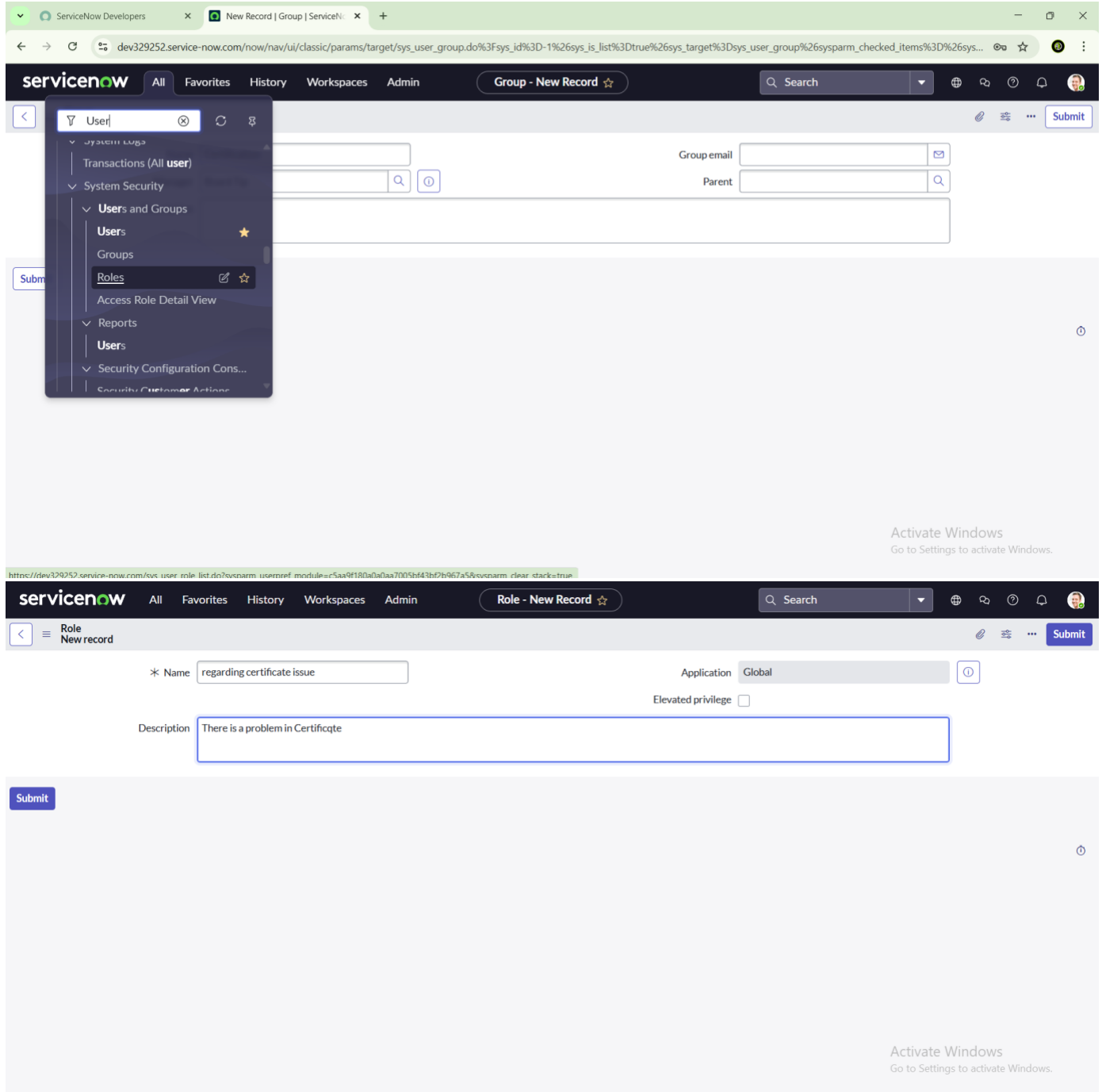
Activate Windows

Go to Settings to activate Windows.

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



The screenshot shows the ServiceNow 'Role - New Record' form. The form is partially filled with the following details:

- Name:** regarding certificate issue
- Application:** Global
- Description:** There is a problem in Certificqte

A search dropdown menu is open on the left, showing the following options:

- System Logs
- Transactions (All user)
- System Security
- Users and Groups
- Users
- Groups
- Roles
- Access Role Detail View
- Reports
- Users
- Security Configuration Cons...
- Security Customer Actions

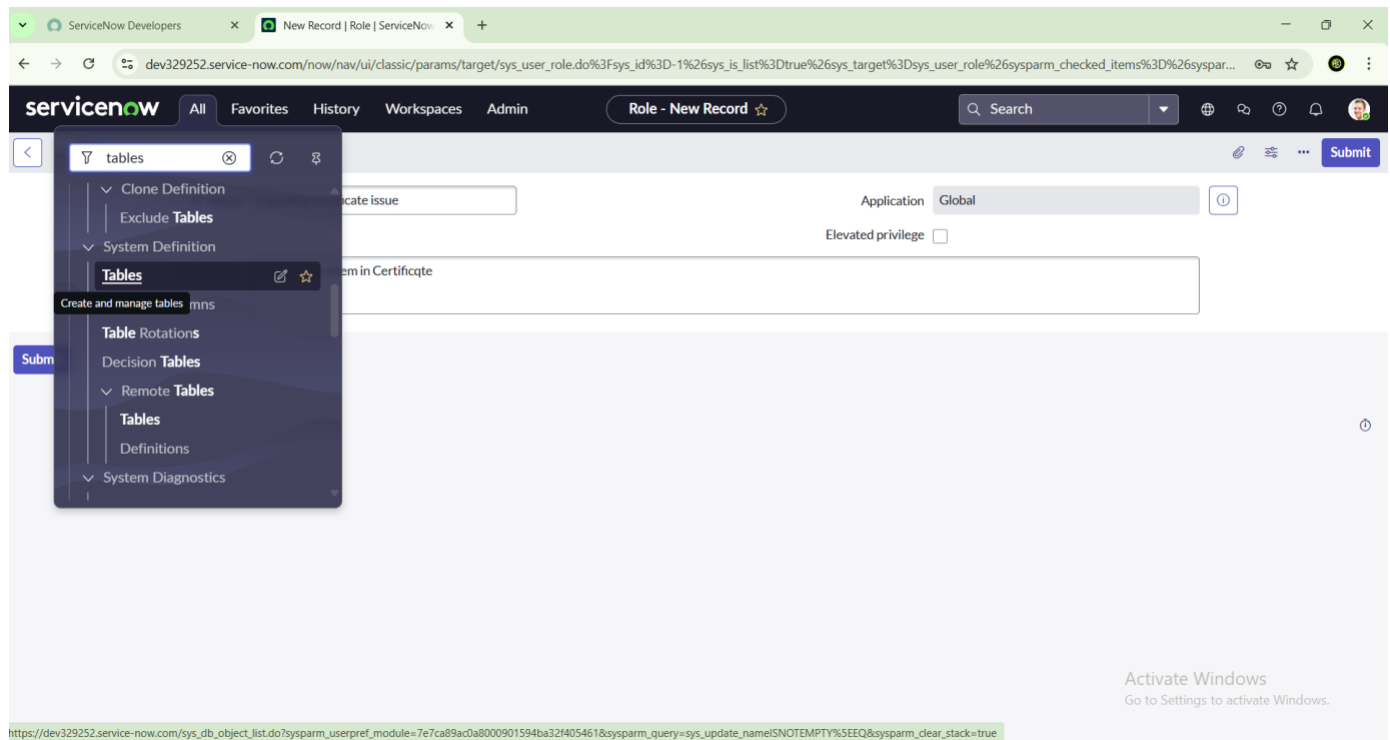
The 'Submit' button is visible at the bottom left of the form.

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
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

New menu name

Columns Controls Application Access

Table Columns for text Search

Column label	Type	Reference	Max length	Default value	Display
project id	Integer				false
project name	String				false
project manger	String				false
start date	Date				false
end date	Date				false
status	Choice				false
description	String				false

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%3Df53ba8e3835992108663ffd6fead365%26sysparm_view%3D%26sysparm_dom...

servicenow All Favorites History Workspaces **Table - task table 2** Search

Table task table 2

Table Columns for text Search

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

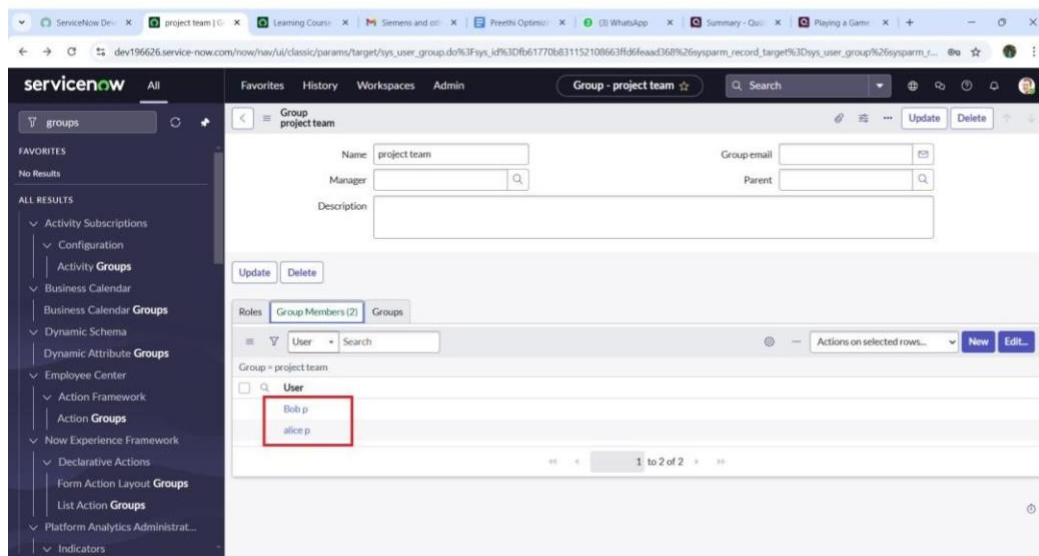
1 to 6 of 6 New

Delete Update Delete All Records

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

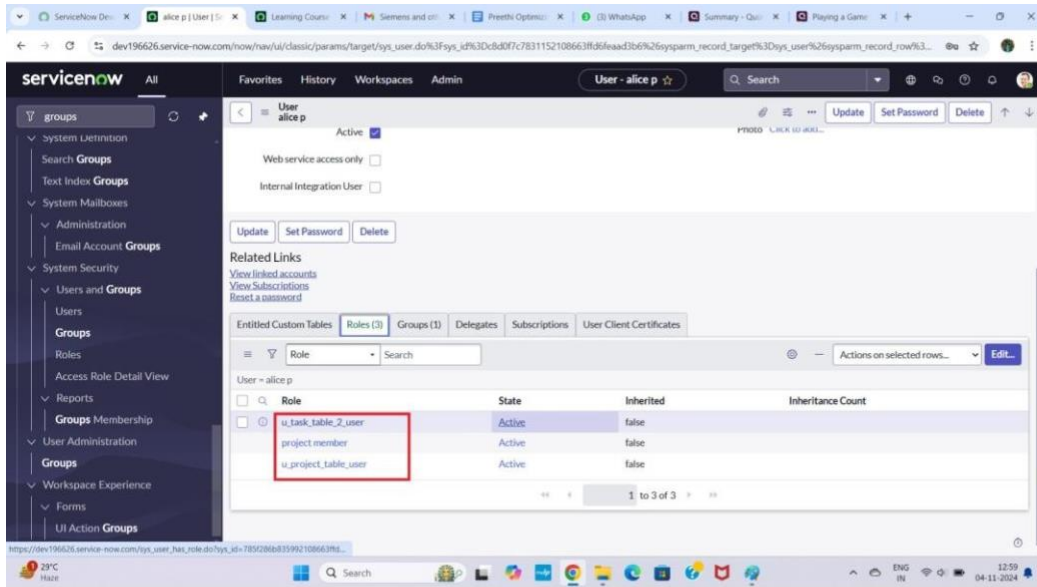


Milestone 6 : Assign roles to users

Activity 1: Assign roles to alice user

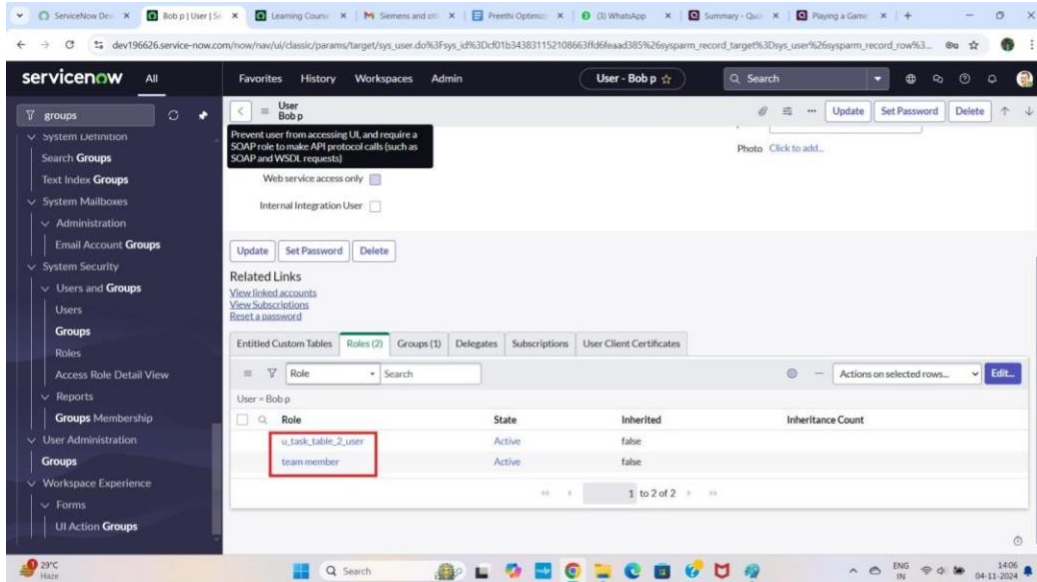
1. Open servicenow. Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user
4. Under project manager
5. Click on edit
6. Select project member and save
7. click on edit add u_project_table role and u_task_table role

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.



The screenshot shows the ServiceNow 'User' management page for user 'Bob p'. The 'Roles' tab is selected, displaying a table of roles assigned to the user. The 'team member' role is highlighted with a red box.

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

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

dev196626.service-now.com/now/nav/ui/classic/params/target/sys_app_application.do%3Fsys_id%3D9705334f831152108663ffd6fead362

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

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%3D114bece3835992108663ffd6fead3dc

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

Application Menu task table 2 Update Delete

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

Roles

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

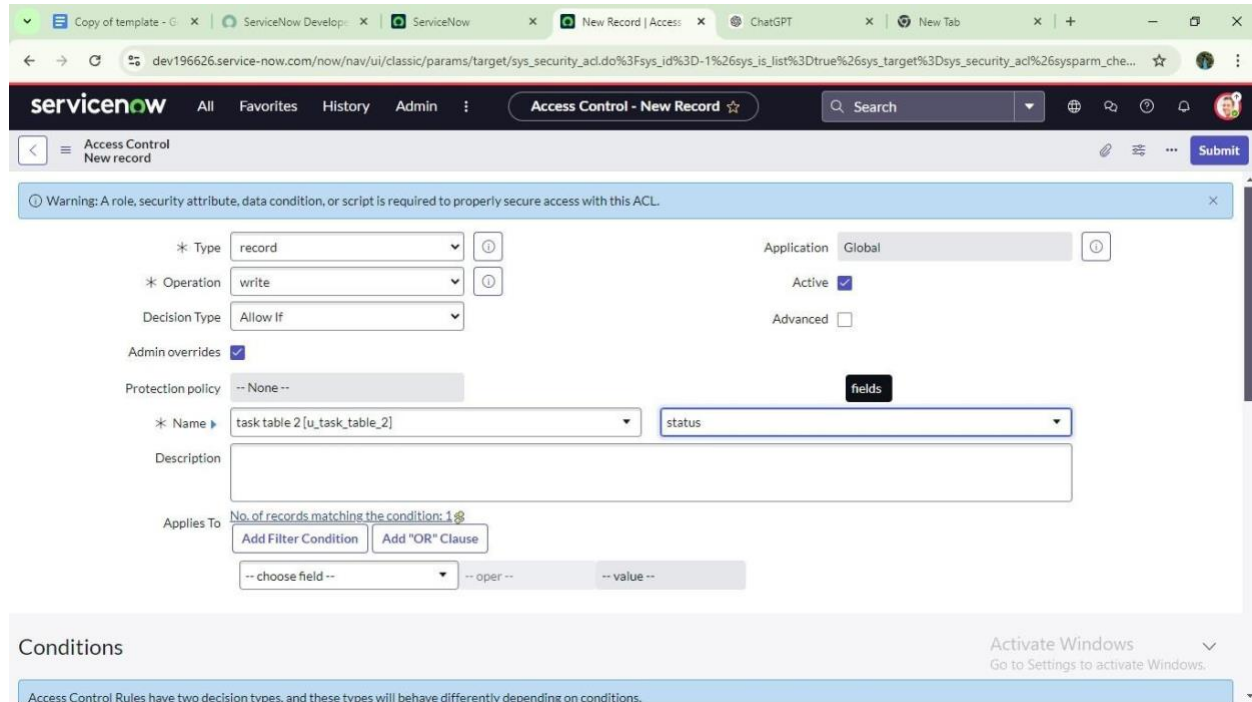
Activate Windows
Go to Settings to activate Windows.

Modules Order Search Actions on selected rows... New

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



The screenshot shows the ServiceNow 'Access Control - New Record' form. At the top, there's a warning: 'Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL.' The form fields include:

- * 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]
- status: status
- Description: (empty text area)
- Applies To: No. of records matching the condition: 1
- Buttons: Add Filter Condition, Add "OR" Clause
- Fields: -- choose field --, -- oper --, -- value --

At the bottom, there's a 'Conditions' section with a note: 'Access Control Rules have two decision types, and these types will behave differently depending on conditions.'

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

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

servicenow All Favorites History Workspaces Access Controls Search

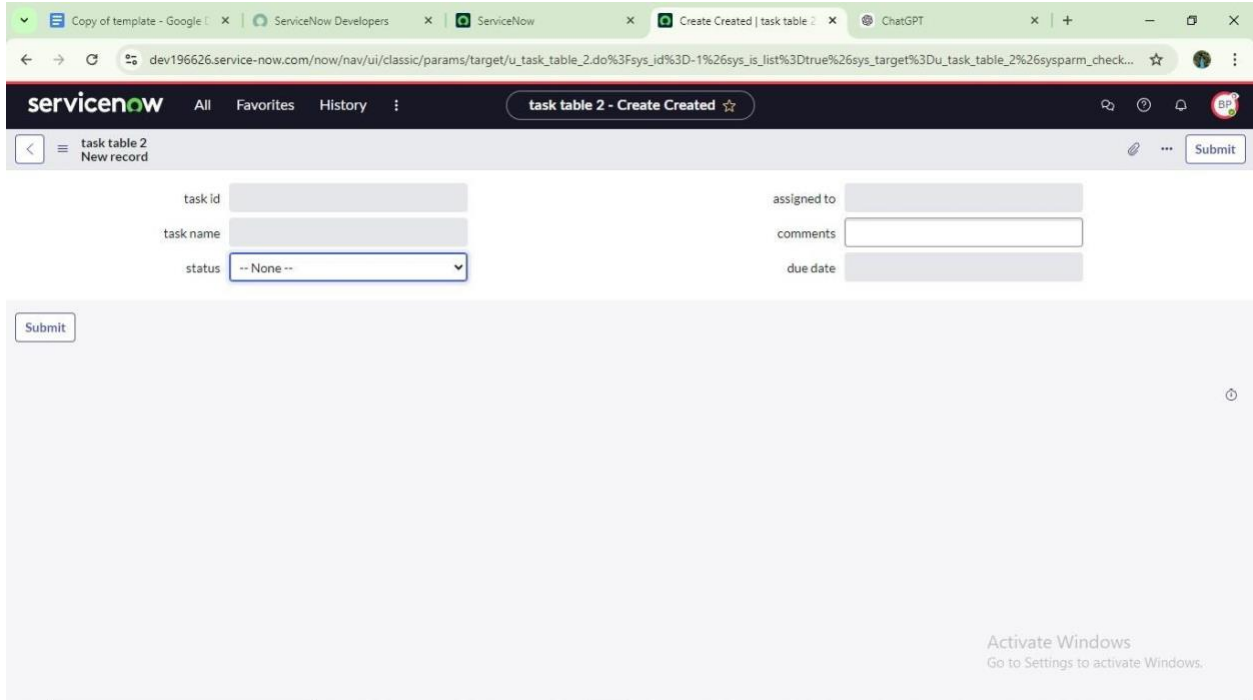
Access Controls Name Search Actions on selected rows... New

All > Created on Today

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

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



The screenshot shows a web browser window with multiple tabs. The active tab is 'Create Created | task table 2'. The address bar shows a URL from dev196626.service-now.com. The ServiceNow header is visible with the 'task table 2 - Create Created' title. The form contains the following fields:

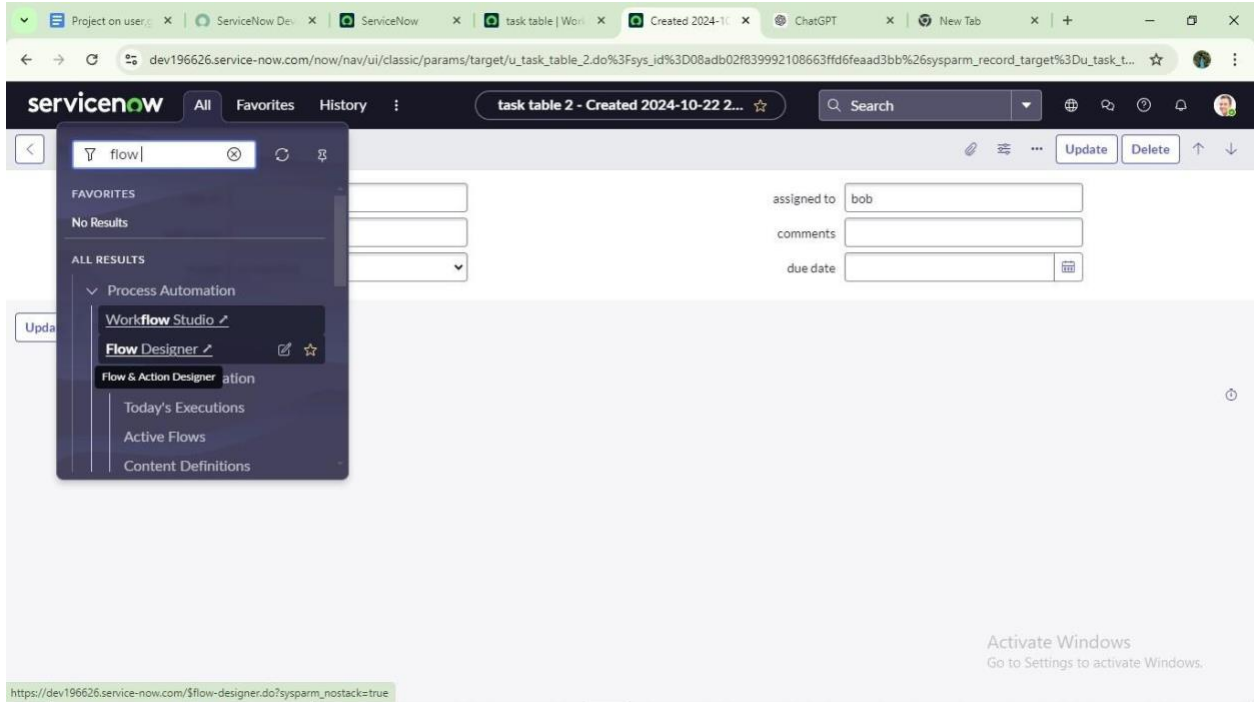
- task id:
- task name:
- status:
- assigned to:
- comments:
- due date:

A 'Submit' button is located at the bottom left of the form area. An 'Activate Windows' watermark is visible in the bottom right corner of the browser window.

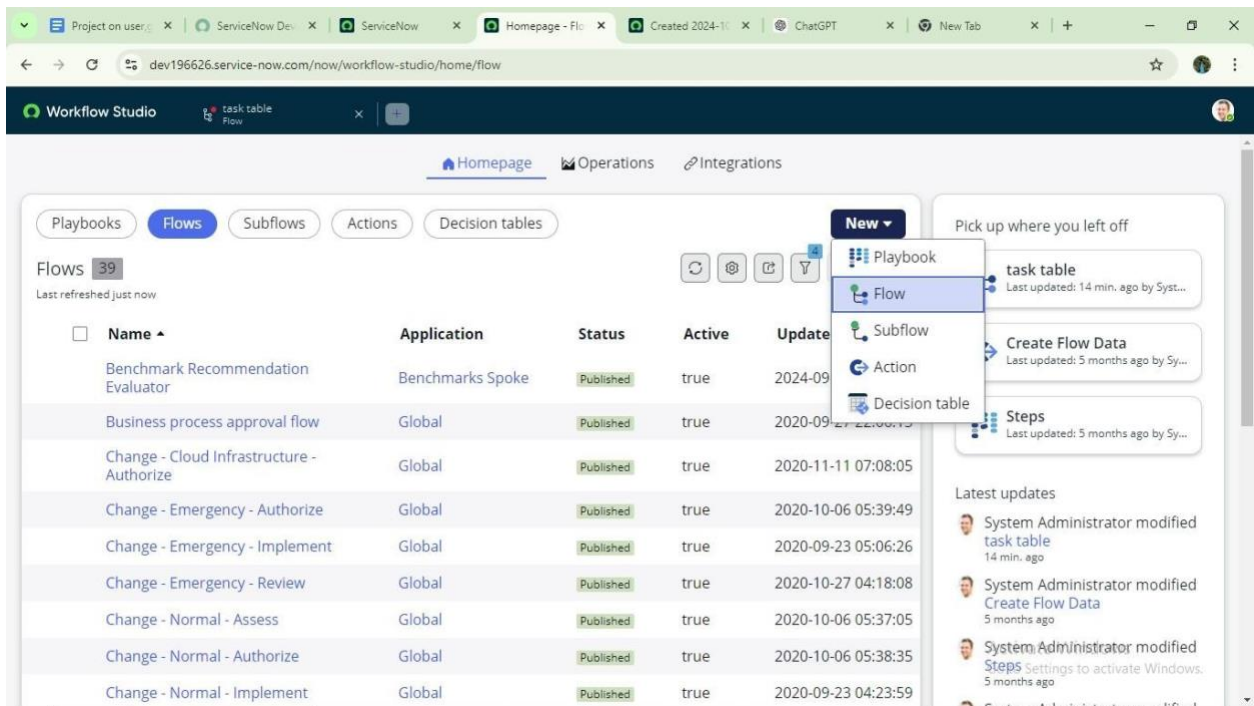
Milestone 9: Flow

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.



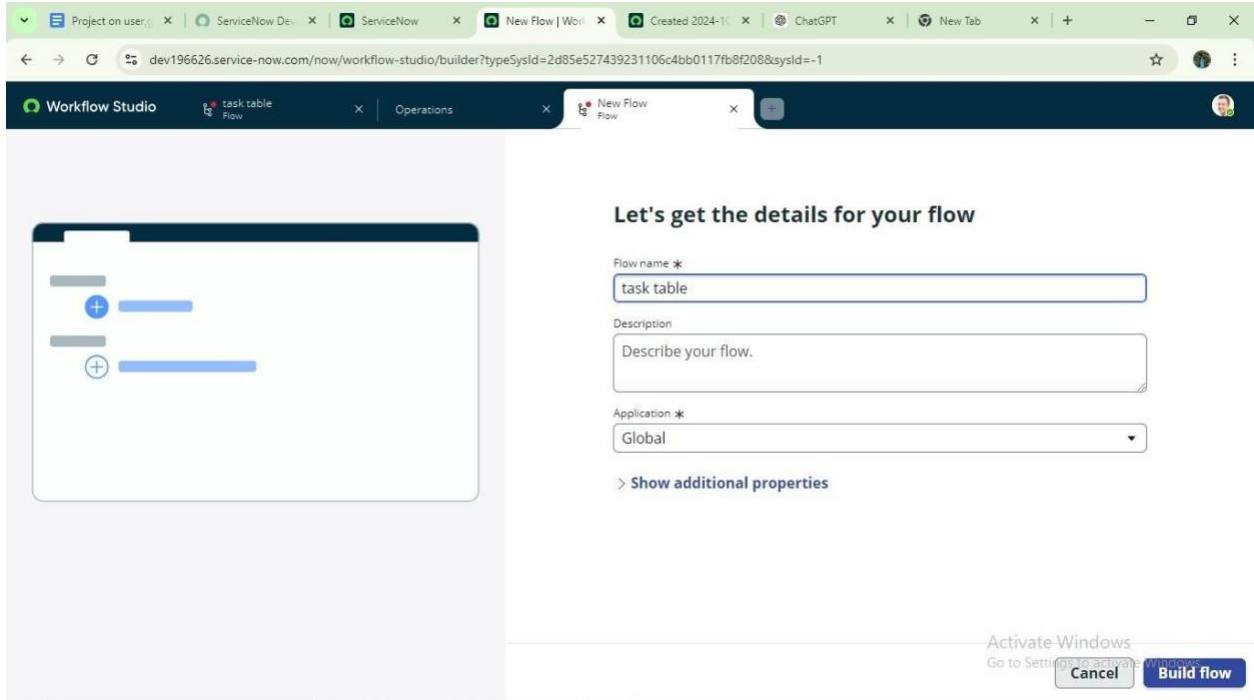
The screenshot shows the ServiceNow classic user interface. The browser address bar displays the URL: `dev196626.service-now.com/now/nav/ui/classic/params/target/u_task_table_2.do%3Fsys_id%3D08adb02f839992108663ffd6fead3bb%26sysparm_record_target%3Du_task_t...`. The page title is "task table 2 - Created 2024-10-22 2...". A search bar at the top right contains the text "flow". A dropdown menu is open, showing "No Results" under "FAVORITES" and "ALL RESULTS". Under "ALL RESULTS", the "Process Automation" section is expanded, showing links to "Workflow Studio", "Flow Designer", and "Flow & Action Designer". The main content area shows fields for "assigned to" (bob), "comments", and "due date".



The screenshot shows the ServiceNow Workflow Studio interface. The browser address bar displays the URL: `dev196626.service-now.com/now/workflow-studio/home/flow`. The page title is "Workflow Studio". The "Flows" tab is selected, showing a list of 39 flows. The "New" dropdown menu is open, showing options for "Playbook", "Flow", "Subflow", "Action", and "Decision table". The "Flow" option is selected. The list of flows includes:

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

The right sidebar shows a "Pick up where you left off" section with links to "task table", "Create Flow Data", and "Steps". The "Latest updates" section shows a list of recent updates, including "System Administrator modified task table" and "System Administrator modified Create Flow Data".



Workflow Studio

task table Flow

Operations

New Flow Flow

Let's get the details for your flow

Flow name *
task table

Description
Describe your flow.

Application *
Global

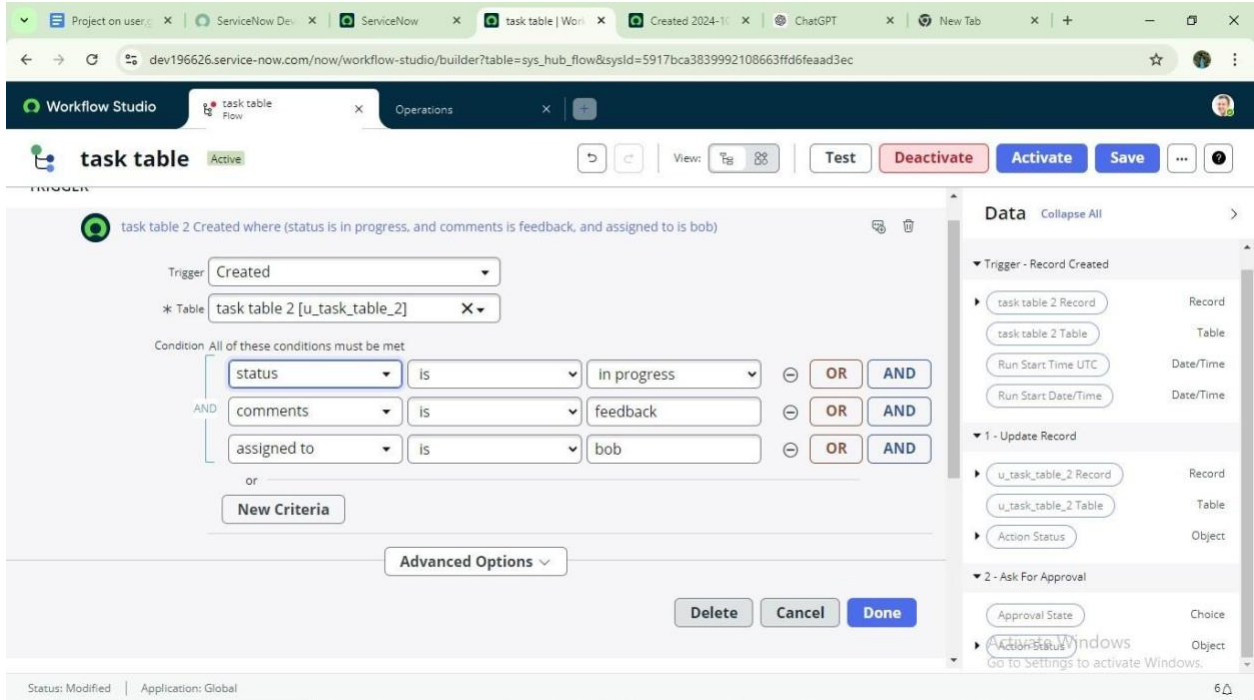
> Show additional properties

Activate Windows
Go to Settings to activate Windows

Cancel 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.



Workflow Studio

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
- comments is feedback
- assigned to is bob

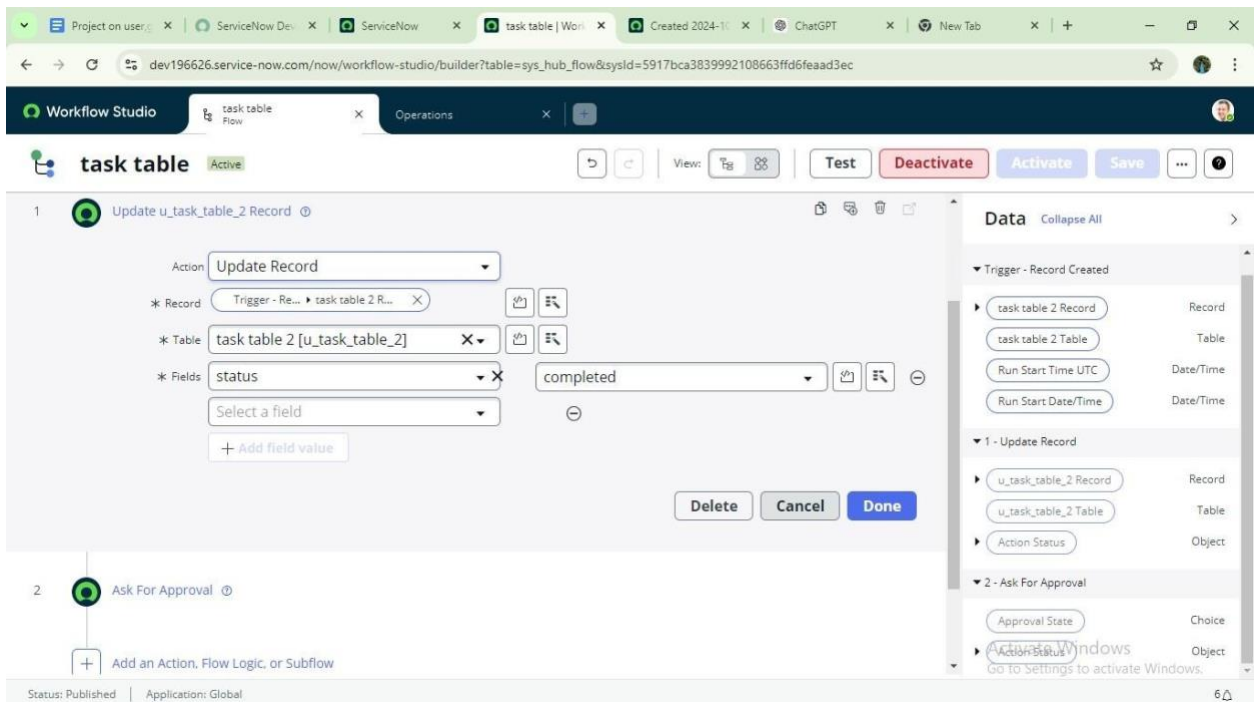
Advanced Options

Buttons: Delete, Cancel, Done

Status: Modified | 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.



Workflow Studio

task table 2

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]

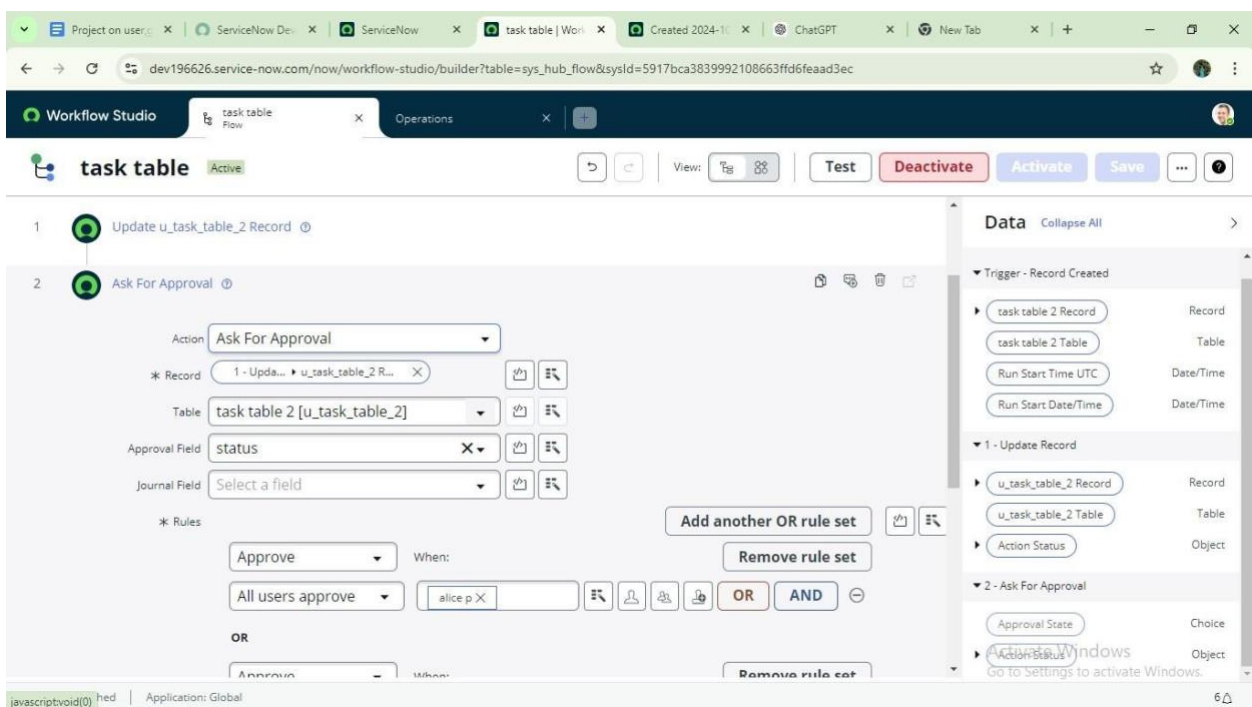
* Fields: status, completed

Buttons: Delete, Cancel, Done

Status: Published | 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.



The screenshot shows the ServiceNow Workflow Studio interface for a workflow named 'task table'. The workflow has two steps:

1. Update u_task_table_2 Record
2. Ask For Approval

The 'Ask For Approval' action is configured with the following details:

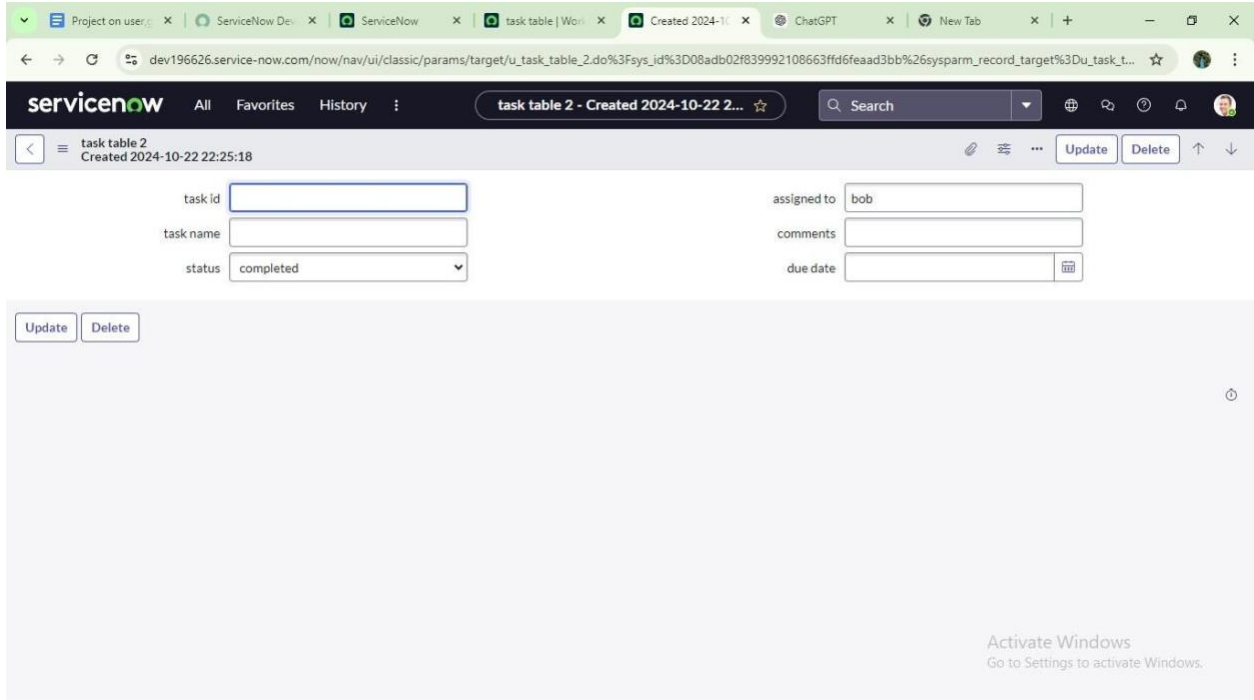
- Action:** Ask For Approval
- Record:** 1 - Update u_task_table_2 R...
- Table:** task table 2 [u_task_table_2]
- Approval Field:** status
- Journal Field:** Select a field
- Rules:**
 - Rule 1: Approve. When: All users approve. Approver: alice p.
 - Rule 2: Approve. When: [Empty]. Approver: [Empty].

The right sidebar shows the 'Data' pane with a tree view of the workflow's data objects:

- 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)

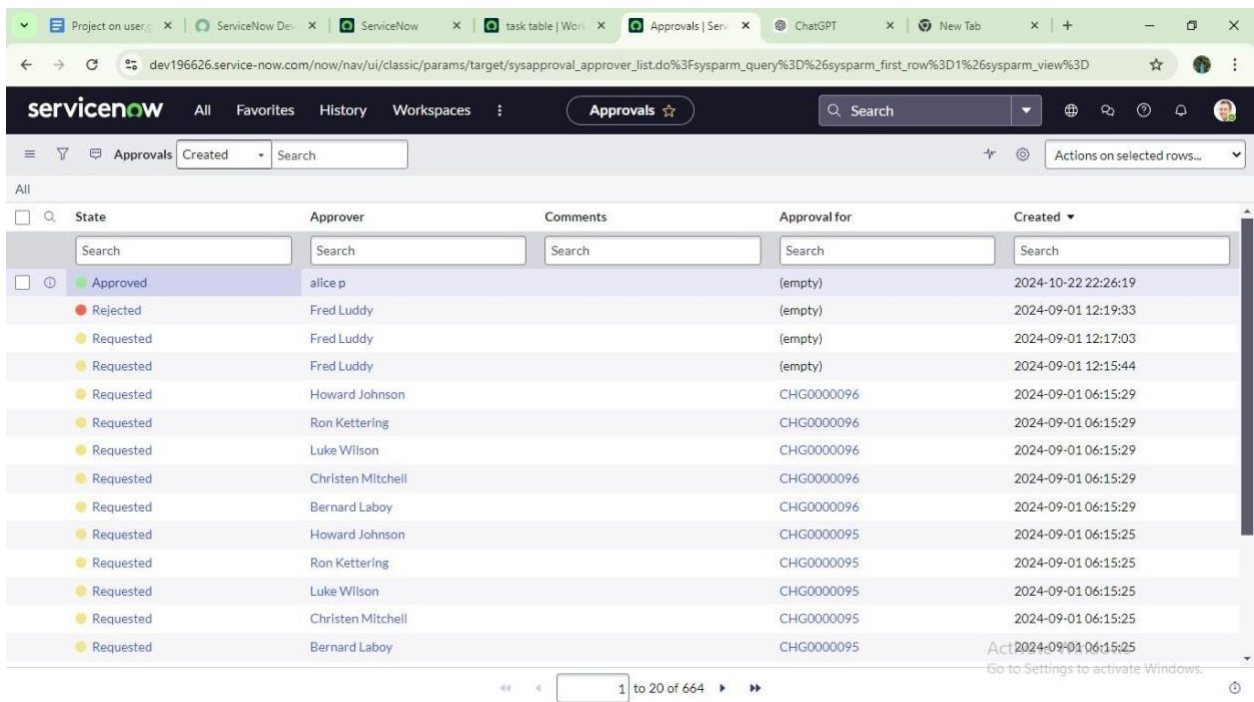
The bottom status bar shows 'Application: Global'.

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



The screenshot shows a ServiceNow task form titled "task table 2 - Created 2024-10-22 22:25:18". The form includes fields for task id, task name, status (set to "completed"), assigned to (set to "bob"), comments, and due date. There are "Update" and "Delete" buttons at the bottom left. The browser tabs show "Project on user...", "ServiceNow Dev...", "ServiceNow", "task table | Wor...", "Created 2024-10-22 22:25:18", "ChatGPT", and "New Tab".

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



The screenshot shows the ServiceNow "Approvals" list. The table has columns for State, Approver, Comments, Approval for, and Created. The first row is highlighted in blue and shows a green dot for "Approved" state, with the approver "alice p" and a creation time of "2024-10-22 22:26:19". Other rows show "Rejected" and "Requested" states with various approvers and creation times. The browser tabs show "Project on user...", "ServiceNow Dev...", "ServiceNow", "task table | Wor...", "Approvals | Ser...", "ChatGPT", and "New Tab".

State	Approver	Comments	Approval for	Created
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

Conclusion :

The implementation of the automated ticket routing system at ABC Corporation has been a significant success. By leveraging the capabilities of ServiceNow, we have streamlined the process of assigning support tickets to the appropriate teams, addressing the challenges of manual routing, and ensuring timely resolution of issues.