



Streamlining Ticket Assignment for Efficient Support Operations

Project Overview:

At **ABC Corporation**, the increasing volume of support requests has highlighted the need for a more efficient and automated ticket management process. Currently, manual assignment of tickets often leads to delays, misrouting, and uneven workload distribution across support teams.

This project introduces an **automated ticket assignment system** designed to streamline support operations. Leveraging predefined rules, intelligent routing mechanisms, and workflow automation, the system ensures that each ticket is directed to the most suitable team or individual.

By implementing this solution, ABC Corporation aims to:

- **Reduce resolution delays** by eliminating manual routing errors.
- **Enhance customer satisfaction** through faster and more accurate issue handling.
- **Optimize resource utilization** by balancing workloads across support teams.
- **Improve operational transparency** with clear assignment logic and reporting.

Ultimately, this initiative supports the organization's goal of delivering **high-quality, responsive, and efficient IT support services** while empowering teams to focus on problem resolution rather than administrative overhead.

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1. Introduction

In today's fast-paced business environment, timely and accurate handling of IT support requests is essential for maintaining productivity and customer satisfaction. At **ABC Corporation**, the growing number of support tickets has made manual assignment inefficient, often resulting in delays, misrouted issues, and increased workload on support staff.

To overcome these challenges, this project focuses on implementing an **automated ticket assignment system**. By leveraging workflow automation and intelligent routing, the system will ensure that tickets are assigned to the right teams or individuals without manual intervention. This not only improves response and resolution times but also enhances overall efficiency, resource utilization, and service quality within the support department.

2. Project Objective

The primary objective of this project is to **implement an automated ticket assignment system** at **ABC Corporation** that enhances the efficiency of IT support operations. The solution is designed to:

- **Automate ticket routing** to ensure accurate and timely assignment to the appropriate support teams or individuals.
- **Reduce delays in issue resolution** by minimizing manual intervention and routing errors.
- **Improve customer satisfaction** through faster response times and consistent service delivery.
- **Optimize resource utilization** by balancing workloads across support teams.
- **Enhance operational transparency** with clear assignment logic, reporting, and monitoring capabilities.

By achieving these objectives, the project aims to transform the support process into a more **streamlined, reliable, and customer-centric system**.

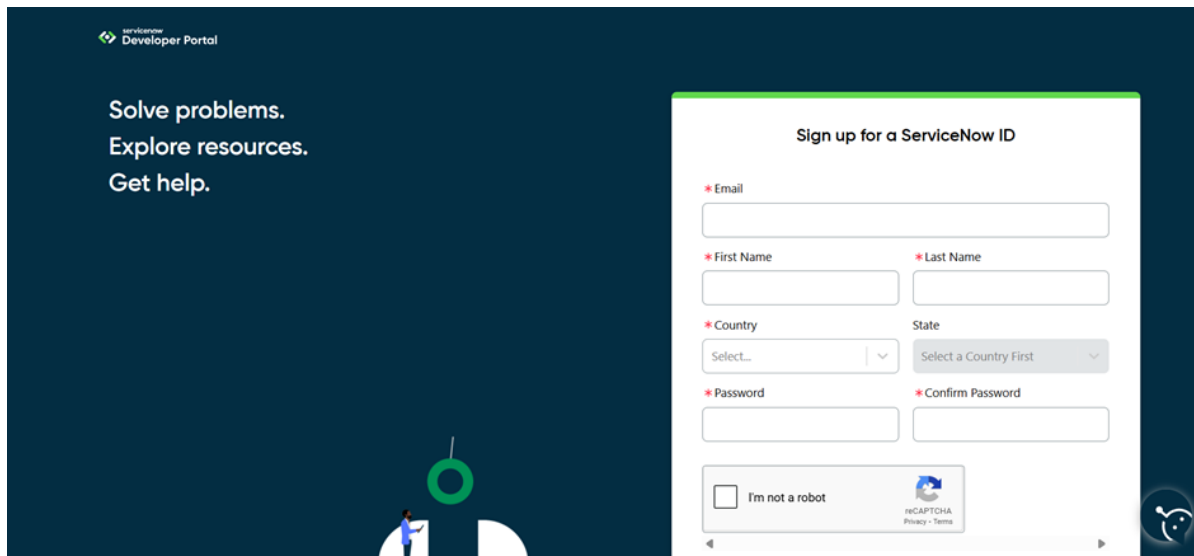
3. Key Features

- **Automated Routing** – Tickets assigned to the right team/person.
- **Dynamic Rules** – Configurable logic based on category, priority, etc
- **Load Balancing** – Distributes workload evenly across teams.
- **Escalation Support** – Auto-escalates tickets nearing SLA breach.
- **Notifications** – Real-time alerts for quicker response.
- **Analytics** – Reports on ticket flow and team performance.

4. ServiceNow Developer Setup:

Create a Developer Account

1. Go to ServiceNow Developer Portal(<https://developer.servicenow.com/dev.do>).
- Sign up for a free developer account and fill the following details.

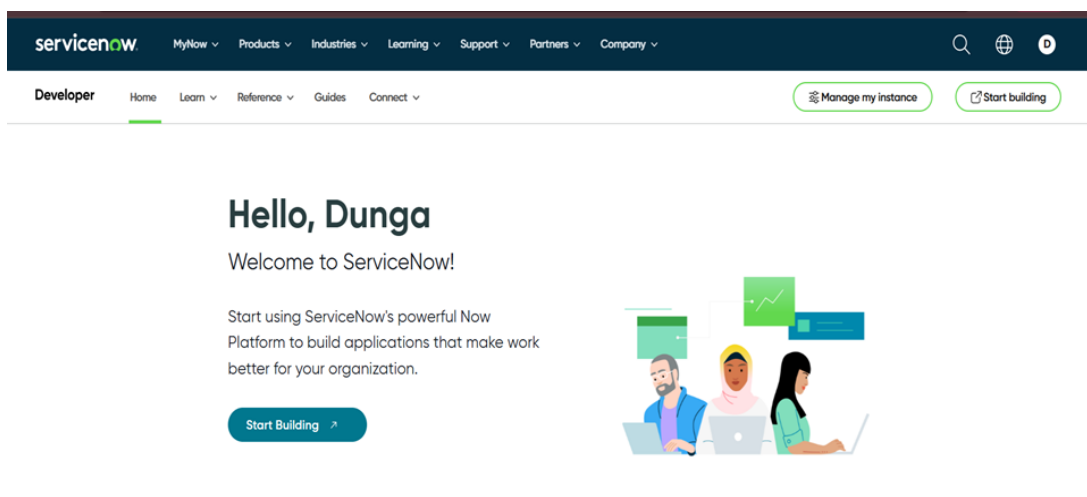


The screenshot shows the 'Sign up for a ServiceNow ID' form on the ServiceNow Developer Portal. The form is set against a dark blue background with the text 'Solve problems. Explore resources. Get help.' on the left. The form fields include: Email, First Name, Last Name, Country (a dropdown menu), State (a dropdown menu with the text 'Select a Country First'), Password, and Confirm Password. There is a checkbox for 'I'm not a robot' and a reCAPTCHA logo. The ServiceNow logo is in the top left corner of the page.

After signing up you will get an verification mail to you provided email id. After the verification your ServiceNow Developer Portal Home Page will appear

Now click on start building it will take you to the section where you can **request a Personal Developer Instance (PDI)** or start using **App Engine Studio** and other tools.

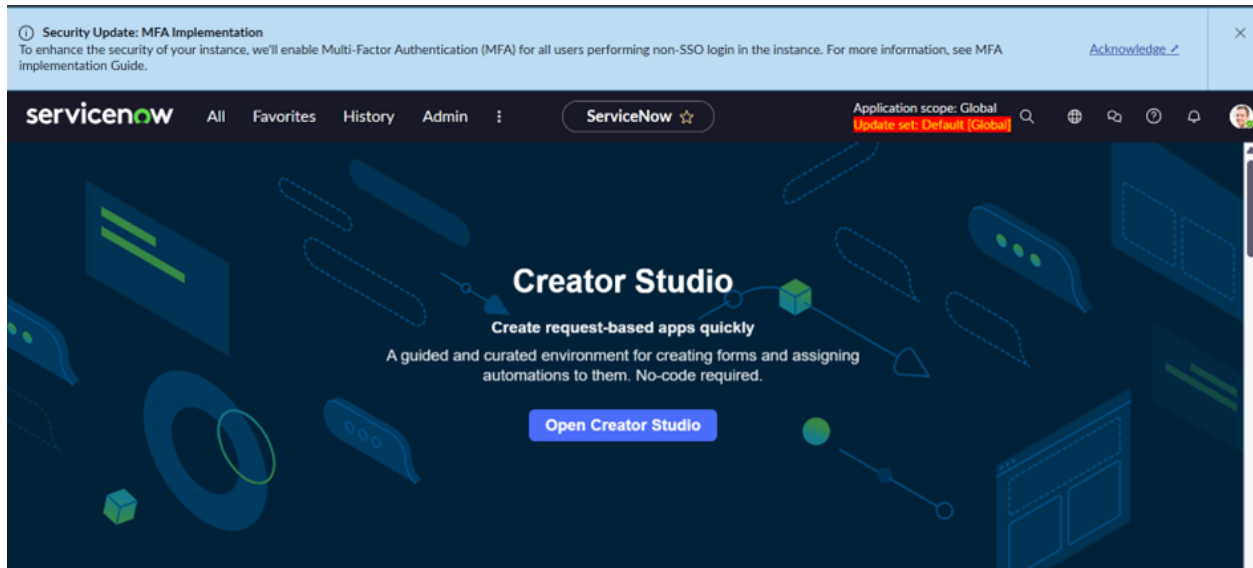
Profile Icon (Top Right Corner) → Manage your account, request instances, and check your developer profile.



5. Project Implementation in ServiceNow:

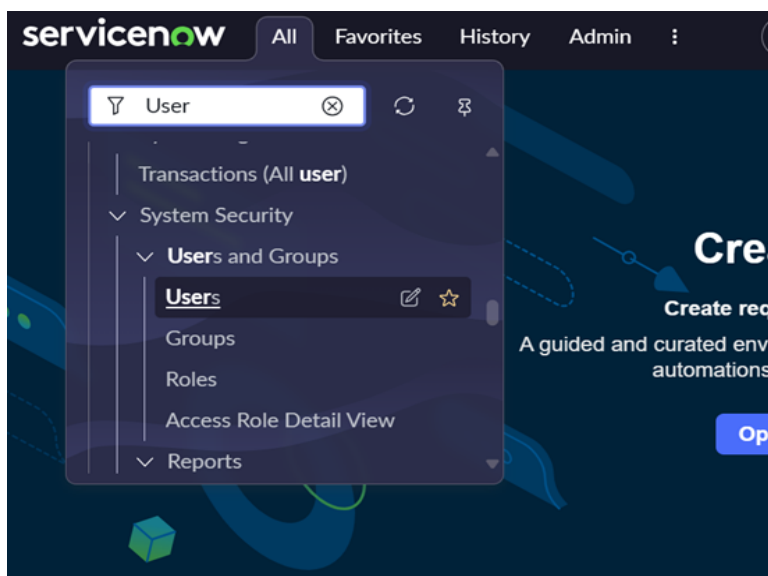
After the instance building is completed the page will be directed to your creator studio.

Creator Studio in ServiceNow provides a **guided, no-code environment** to build applications quickly. It is especially useful for creating **request-based applications** by defining forms, setting up tables, and automating workflows.



a. Creating Users:

1. In the left-hand navigation panel, click on **All** and search for **Users**.
2. Under **System Security**, Select **Users**.



3. Click on **New** to create a new user record.
4. Fill in the required details (such as *First Name, Last Name, User ID, Email, Password, Roles*).
5. Click **Submit** to save the user.

Create the user by filling the following details:

The screenshot shows the ServiceNow user creation interface for a user named Katherine Pierce. The form is divided into two main sections: personal details and system settings. The personal details section includes fields for User ID, First name, Last name, Title, and Department. The system settings section includes fields for Email, Identity type, Language, Calendar integration, Time zone, Date format, Business phone, and Mobile phone. There are also checkboxes for Password needs reset, Locked out, Active, and Internal Integration User. The form is titled 'User - Katherine Pierce' and has buttons for 'Update', 'Set Password', and 'Delete'.

ServiceNow User - Katherine Pierce

Application scope: Global
Update set: Default [Global]

User ID: Katherine Pierce
First name: Katherine
Last name: Pierce
Title:
Department:
Password needs reset: ☐
Locked out: ☐
Active: ☒
Internal Integration User: ☐

Email:
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...](#)

Update Set Password Delete

Related Links
[View linked accounts](#)

Create another user:

- Repeat the same steps to add a second user with different details.
- Click **Submit** again to save the second user.

The screenshot shows the ServiceNow user creation interface for a user named Manne Niranjana. The form is divided into two main sections: personal details and system settings. The personal details section includes fields for User ID, First name, Last name, Title, and Department. The system settings section includes fields for Email, Identity type, Language, Calendar integration, Time zone, Date format, Business phone, and Mobile phone. There are also checkboxes for Password needs reset, Locked out, Active, and Internal Integration User. The form is titled 'User - Manne Niranjana' and has buttons for 'Update', 'Set Password', and 'Delete'.

ServiceNow User - Manne Niranjana

Application scope: Global
Update set: Default [Global]

User ID: manne.niranjana
First name: Manne
Last name: Niranjana
Title:
Department:
Password needs reset: ☐
Locked out: ☐
Active: ☒
Internal Integration User: ☐

Email: niranjanreddymanne2507@gmail.com
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...](#)

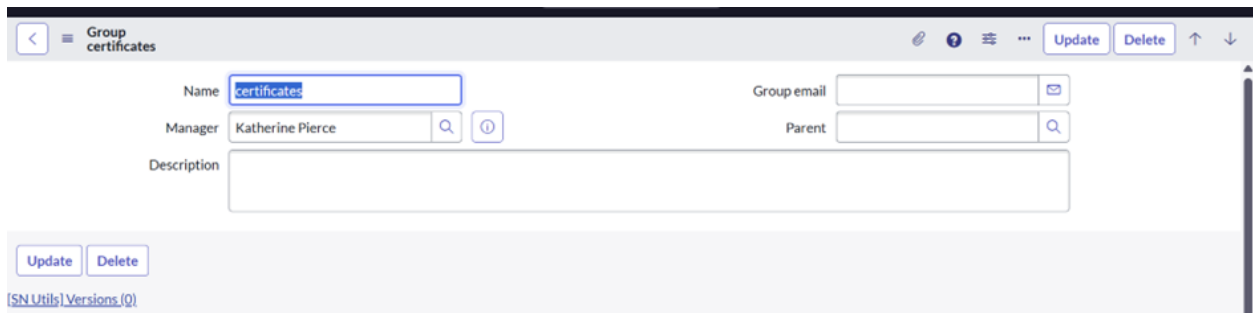
Update Set Password Delete

Related Links
[View linked accounts](#)

b. Create Groups:

1. In the left-hand navigation panel, click on **All** and search for **Groups**.
2. Under **System Security**, select **Groups**.
3. Click on **New** to create a new group record.
4. Fill in the required details such as:
 - **Name** – Group name.
 - **Description** – Short description of the group
 - **Manager** – Assign a manager if required.
5. Click **Submit** to save the group

Create the group by filling in the following details:



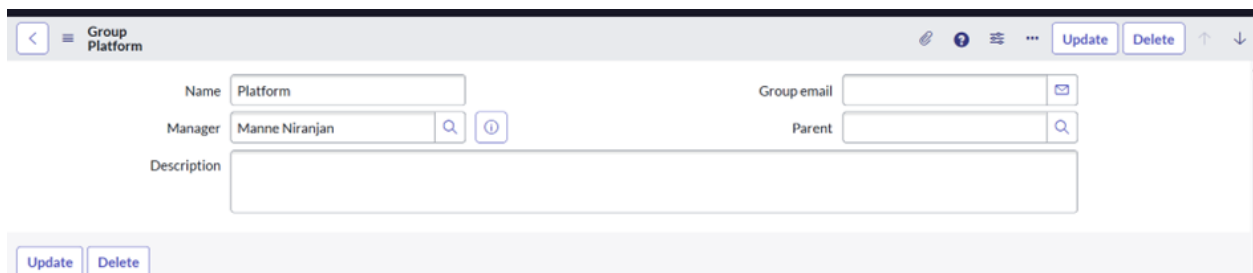
The screenshot shows a web application interface for creating a new group. The title bar at the top reads "Group certificates". On the right side of the title bar are buttons for "Update", "Delete", and navigation arrows. The form contains the following fields:

- Name:** A text input field containing the text "certificates".
- Group email:** A text input field with an email icon on the right.
- Manager:** A text input field containing "Katherine Pierce", with a search icon and an information icon to its right.
- Parent:** A text input field with a search icon to its right.
- Description:** A large, empty text area.

At the bottom left of the form are "Update" and "Delete" buttons. Below the form, there is a link that says "[SN Utils] Versions (0)".

Create another group:

- Repeat the same steps to create a second group with different details.
- Click **Submit** again to save the second group.



The screenshot shows a web application interface for creating a new group. The title bar at the top reads "Group Platform". On the right side of the title bar are buttons for "Update", "Delete", and navigation arrows. The form contains the following fields:

- Name:** A text input field containing the text "Platform".
- Group email:** A text input field with an email icon on the right.
- Manager:** A text input field containing "Manne Niranjana", with a search icon and an information icon to its right.
- Parent:** A text input field with a search icon to its right.
- Description:** A large, empty text area.

At the bottom left of the form are "Update" and "Delete" buttons.

c. Create Roles:

1. In the left navigation panel, select **All** → search for **Roles**.
2. Under **System Security**, click **Roles**.
3. Choose **New** to add a role.
4. Enter the required information, for example:
 - **Name** – A unique role identifier (e.g., *Certificate_role*).
 - **Description** – Brief details of what this role is meant for (e.g., Can deal with certification issues).
5. Click **Submit** to save.

The screenshot shows a web interface for creating a role. The title bar indicates 'Role Certification_role'. The form contains the following fields: 'Name' with the value 'Certification_role', 'Application' with the value 'Global', and 'Description' with the value 'Can deal with certification issues'. There is an 'Elevated privilege' checkbox which is unchecked. At the top right, there are 'Update' and 'Delete' buttons. Below the form, there is a section titled 'Contains Roles' with a search bar and a table. The table has a header 'Role = Certification_role' and a single row with the value 'Contains'. To the right of the table, there are 'New' and 'Edit...' buttons.

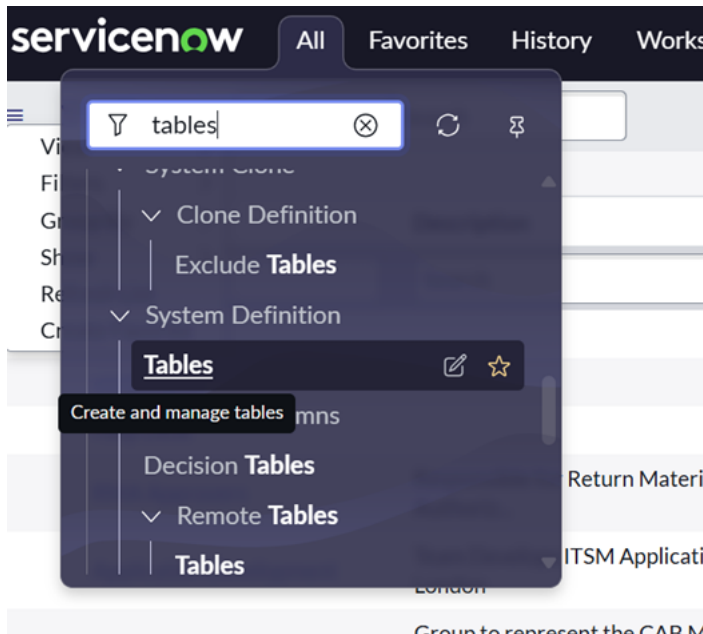
Add another role:

- Follow the same steps to define a second role.
- Role name as Platform_role and with suitable description.

The screenshot shows a web interface for creating a role. The title bar indicates 'Role Platform_role'. The form contains the following fields: 'Name' with the value 'Platform_role', 'Application' with the value 'Global', and 'Description' with the value 'Can deal with platform related issues'. There is an 'Elevated privilege' checkbox which is unchecked. At the top right, there are 'Update' and 'Delete' buttons. Below the form, there is a section titled 'Contains Roles' with a search bar and a table. The table has a header 'Role = Platform_role' and a single row with the value 'Contains'. To the right of the table, there are 'New' and 'Edit...' buttons.

d. Create Table:

1. In the left-hand navigation panel, click on **All** → search for **Tables**.
2. Under **System Definition**, select **Tables**.



3. Click on **New** to create a new table.
4. Fill in the required details:
 - **Label:** *Operations related*
 - Check the boxes **Create module** and **Create mobile module**.
 - **New menu name:** *Operations related*

A screenshot of the ServiceNow 'Table' creation form. The form is titled 'Table Operations related View: Tables'. It contains several input fields and checkboxes. The 'Label' field is filled with 'Operations related'. The 'Name' field is filled with 'u_operations_related'. The 'Extends table' field is empty. The 'Application' dropdown is set to 'Global'. The 'Remote Table' checkbox is unchecked. The 'Create module' checkbox is checked. The 'Create mobile module' checkbox is checked. The 'Add module to menu' dropdown is set to '-- Create new --'. The 'New menu name' field is empty. At the top right of the form, there are buttons for 'Delete', 'Update', and 'Delete All Records'.

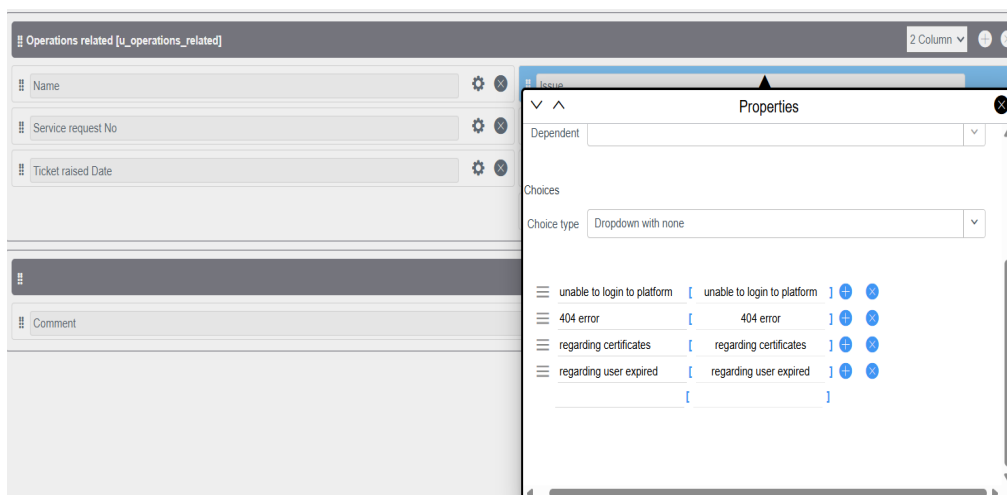
5. Define the **table columns** as per the project requirements (e.g., *Issue, Description, Assigned To, Status*).
6. Click **Submit** to save the table.

Columns Controls Application Access						
Table Columns for text Search New						
Dictionary Entries						
	Column label	Type	Reference	Max length	Default value	Display
×	Ticket raised Date	Date/Time	(empty)	40		false
	Sys ID	Sys ID (GUID)	(empty)	32		false
×	Assigned to user	Reference	User	32		false
	Created	Date/Time	(empty)	40		false
×	Issue	Choice	(empty)	40		false
	Updates	Integer	(empty)	40		false
	Updated by	String	(empty)	40		false
×	Priority	String	(empty)	40		false
×	Name	String	(empty)	40		false
	Updated	Date/Time	(empty)	40		false
×	Service request No	String	(empty)	40	javascript:getNextObjNumberPadded();	false
×	Assigned to group	Reference	Group	32		false
×	Comment	String	(empty)	40		false
	Created by	String	(empty)	40		false

This custom table will act as the data storage for support tickets in our project. It allows us to capture details about issues raised by users and makes it possible to route them automatically to the right team. Without this table, we wouldn't have a centralized place to manage project-specific records.

Adding Choices for the *Issue* Field

1. Navigate to the created table and open **Form Design**.
2. Select the **Issue** field.
3. Add the following choices:
 - a. *Unable to login to platform*
 - b. *404 error*
 - c. *Regarding certificates*
 - d. *Regarding user expired*



4. Save the form design.

The *Issue* field with predefined choices ensures **standardization** when users log problems. This avoids ambiguity (e.g., someone typing “login issue” vs. “can’t login”) and makes it easier to set up **automation rules** for ticket assignment later.

e. Assign roles & users to groups:

i. Assign roles & users to certificate group:

1. In the left-hand navigation panel, click on **All** → search for **Groups**.
2. Under **System Security**, select **Groups**.
3. Open the **Certificates Group** that was created earlier.
4. In the **Group Members** tab:
 - Click **Edit**.
 - Select *Katherine Pierce* as a member.
 - Save the changes.

Add Filter

Run filter ?

-- choose field --

-- oper --

-- value --

Collection

Abel Tuter
Abraham Lincoln
Adela Cervantsz
Aileen Mottern
Alejandra Prenatt
Alejandro Mascall
Alene Rabeck
Alfonso Griglen
Alissa Mountjoy
Allan Schwandt
Allie Pumphrey
Allyson Gillispie
Alva Pennigton
Alyssa Biasotti
Amelia Caputo
Amos Linnan
Andrew Jackson

Group Members List

certificates

Katherine Pierce

>

<

Cancel

Save

Roles (1) Group Members (1) Groups

User

Search

Actions on selected rows...

New

Edit...

Group = certificates

User

Katherine Pierce

5. In the **Roles** tab:

- Click **Edit**.
- Select *Certification_role*.
- Save the changes.

Add Filter

Run filter ?

-- choose field --

-- oper --

-- value --

Collection

Q

access_analyzer_admin
action_category_creator
action_designer
activity_admin
activity_creator
actsub_admin
actsub_user
admin
agent_admin
agent_security_admin
agent_workspace_user
ais_admin
ais_high_security_admin
aisa_admin
analytics_admin
analytics_categories_admin
analytics_filter_admin

Roles List

certificates

Certification_role

>

<

Cancel

Save

Roles (1) Group Members (1) Groups			
Created ▾ Search			
Group = certificates			
<input type="checkbox"/>	Created	Role	Granted by
	2025-08-31 08:23:08	Certification_role	(empty)
			Inherits
			true
1 to 1 of 1			

Assigning users and roles to the **Certificates Group** ensures that only authorized members can handle **certificate-related support tickets**. This allows proper **access control**, ensures **responsibility assignment**, and enables the ticket assignment automation to work correctly.

ii. Assign roles & users to platform group:

In the left-hand navigation panel, click on **All** → search for **Groups**.

2. Under **System Security**, select **Groups**.
3. From the list of groups, open the **platform group**.
4. In the **Group Members** tab:
 - Click **Edit**.
 - Select *Manne Niranjan* from the available users.
 - Save the changes.

Add FilterRun filter?

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

Collection

access_analyzer_admin
action_category_creator
action_designer
activity_admin
activity_creator
actsub_admin
actsub_user
admin
agent_admin
agent_security_admin
agent_workspace_user
ais_admin
ais_high_security_admin
aisa_admin
analytics_admin
analytics_categories_admin
analytics_filter_admin

Roles List

Platform

Platform_role

>

<

Cancel

Save

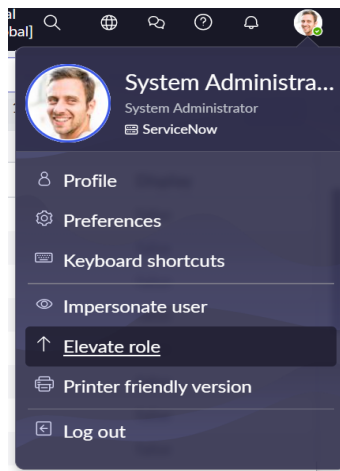
Roles (1) Group Members (1) Groups			
Created Search Actions on selected rows... Edit...			
Group = Platform			
<input type="checkbox"/>	Created	Role	Granted by
	2025-08-31 08:26:37	Platform_role	(empty)
			Inherits
			true
1 to 1 of 1			

5. In the **Roles** tab:

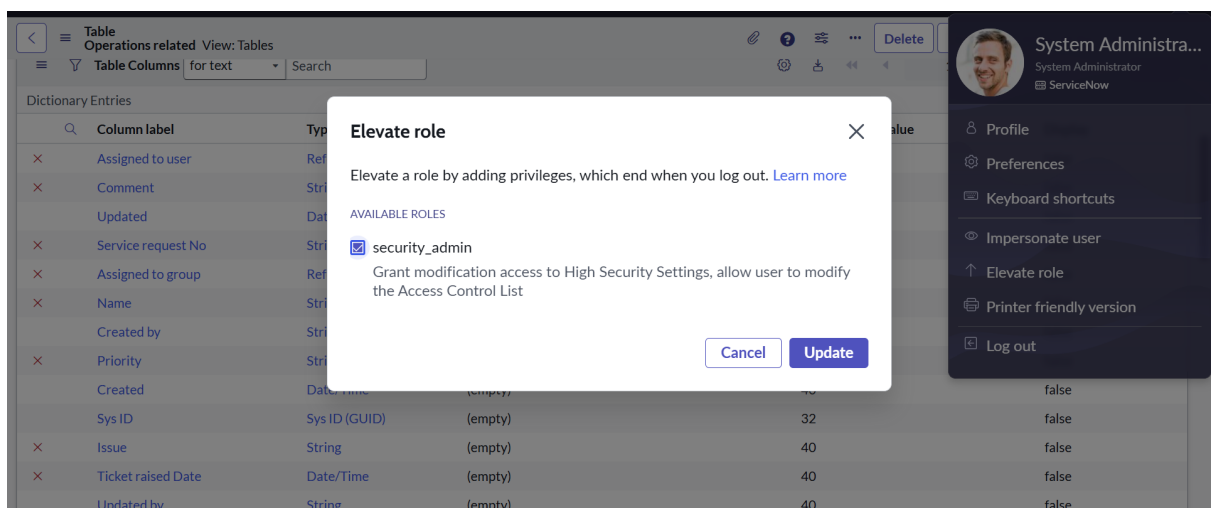
- Click **Edit**.
- Select *platform group* from the available roles.
- Save the changes.

f. Assign role to table:

1. In the left-hand navigation panel, click on **All** → search for **Tables**.
2. From the list, select the **Operations related** table.
3. Go to the **Application Access** tab.
4. Click on your profile (top-right corner).



5. Select **Elevate Role** → choose **security_admin** → click **Update**.

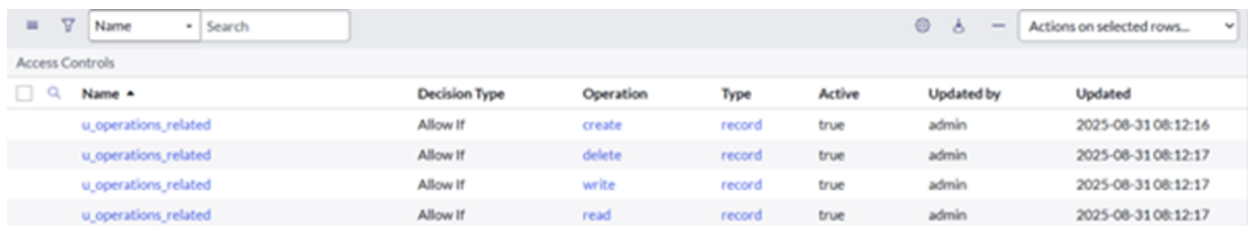


6. Under **u_operations_related** [Read] operation:

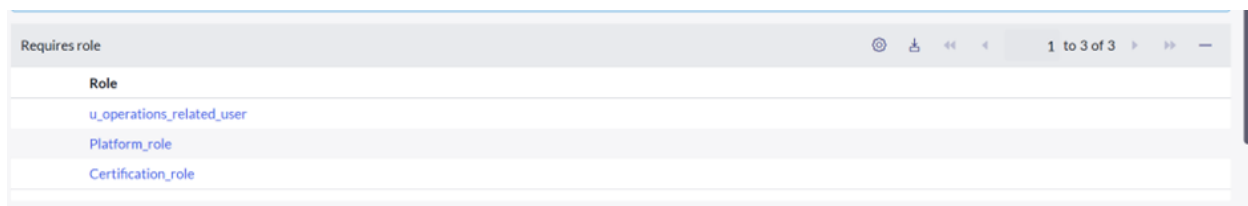
- In **Requires Role**, double-click to insert a new row.
- Add **platform_role** and **certificate_role**.
- Click **Update**.

7. Under **u_operations_related** [Write] operation:

- In **Requires Role**, double-click to insert a new row.
- Add **platform_role** and **certificate_role**.
- Click **Update**



Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_operations_related	Allow If	create	record	true	admin	2025-08-31 08:12:16
u_operations_related	Allow If	delete	record	true	admin	2025-08-31 08:12:17
u_operations_related	Allow If	write	record	true	admin	2025-08-31 08:12:17
u_operations_related	Allow If	read	record	true	admin	2025-08-31 08:12:17



Role
u_operations_related_user
Platform_role
Certification_role

Assigning roles to the **Operations related** table ensures that only authorized users (those with **Platform Role** or **Certificate Role**) can **read** and **write** records. This provides **data security**, **controlled access**, and ensures tickets are handled only by the correct teams.

g. Creating Access Control Rules (ACL):

1. **Open ServiceNow** and log in to your Personal Developer Instance (PDI).
2. In the left-hand navigation panel, click on **All** → search for **ACL**.
3. Under **System Security**, select **Access Control (ACL)**.
4. Click on **New** to create a new ACL.
5. Fill in the required details for the ACL rule (such as *Table, Operation, Field*).

Warning: A role, security attribute, data condition, script or ACL control via reference fields 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: Operations related [u_operations_related] Service request No

Description: </>

Applies To: No. of records matching the condition: 4

Add Filter Condition Add OR Clause

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

6. Scroll down to the **Requires Role** section.

- Double-click on **Insert a new row**.
- Add the **admin** role.

Requires role

Role

+ admin

Showing 1 through 1 of 1

admin

Local or Existing ☐ Existing ☐ Local ☒

7. Click **Submit** to save the ACL.

Similarly, create **four ACLs** for the following fields:

- Field 1: Issue
- Field 2: Priority
- Field 3: Ticket raised Date

<

≡

Access Control
New record

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

* Type

record

ⓘ

* Operation

write

ⓘ

Decision Type

Allow If

Admin overrides

☒

Protection policy

-- None --

* Name

Operations related [u_operations_related]

Description

No. of records matching the condition: 4

Add Filter Condition

Add OR Clause

-- choose field --

-- oper --

-- value --

Application

Global

Active

☒

Advanced

☐

fields

Priority

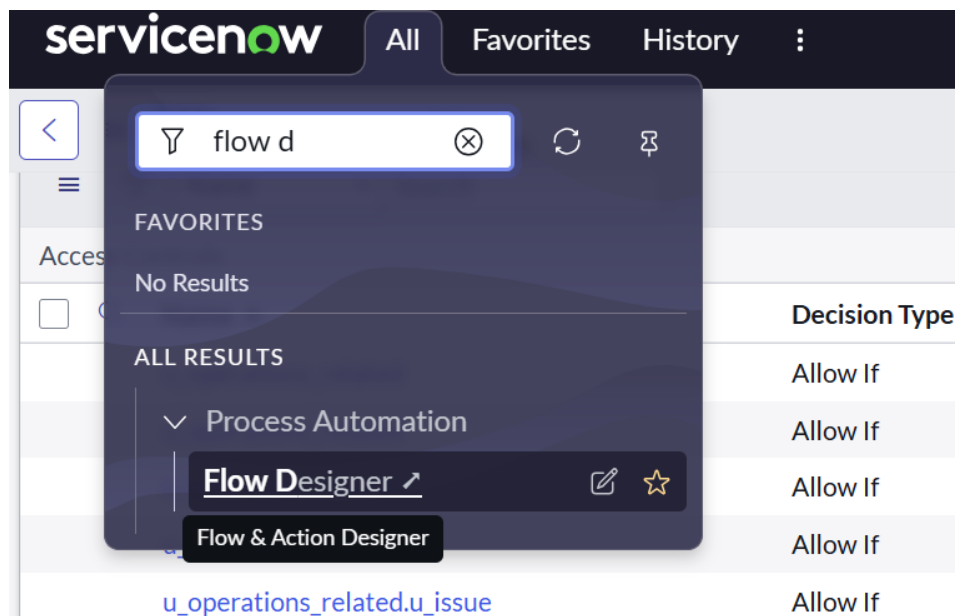
u_operations_related.u_name	Allow If	write	record	true	admin	2025-08-31 08:38:59
u_operations_related.u_priority	Allow If	write	record	true	admin	2025-08-31 08:37:12
u_operations_related.u_service_request_no	Allow If	write	record	true	admin	2025-08-31 08:35:05
u_operations_related.u_ticket_raised_date	Allow If	write	record	true	admin	2025-08-31 08:38:04

ACLs (Access Control Rules) provide **granular security** at the **table and field level**. By creating these ACLs, we ensure that only users with the **admin role** (or other required roles) can access or modify sensitive fields. This prevents unauthorized actions and protects critical data in the **Operations related** table.

h. Flow:

i. Create a Flow to Assign operations ticket to group:

1. **Open ServiceNow** and log in to your instance.
2. In the left navigation panel, click on **All** → search for **Flow Designer**.
3. Select **Flow Designer** under *Process Automation*.



4. Once Flow Designer opens, click on **New** → select **Flow**.

Configure Flow Properties:

- **Flow Name:** *Regarding Certificate*
- **Application:** *Global*
- **Run As User:** *System User*
- Click **Submit**.

Let's get the details for your flow

Flow name * ⓘ

Regarding certificate

Application * ⓘ

Global

Description ⓘ

Describe your flow.

▼ Hide additional properties

Protection ⓘ

-- None --

Run as ⓘ


System user

Cancel


Build flow

Add a Trigger:

1. Click **Add a trigger**.
2. Search and select **Create or update a record**.
3. In the configuration:
 - . **Table:** *Operations related*
 - . **Condition:**
 - . **Field:** Issue
 - . **Operator:** is
 - . **Value:** Regarding Certificates
4. Click **Done**.

 **Regarding Certificate** Active ↶ ↷ View: 🔍 🔧 Test Debug Deactiva

TRIGGER

 Operations related Created or Updated where (Issue is Regarding certificates) 🔍 🗑️

Trigger: Created or Updated

* Table: Operations related [u_operation... ✕]

Condition: All of these conditions must be met

Issue is Regarding

or

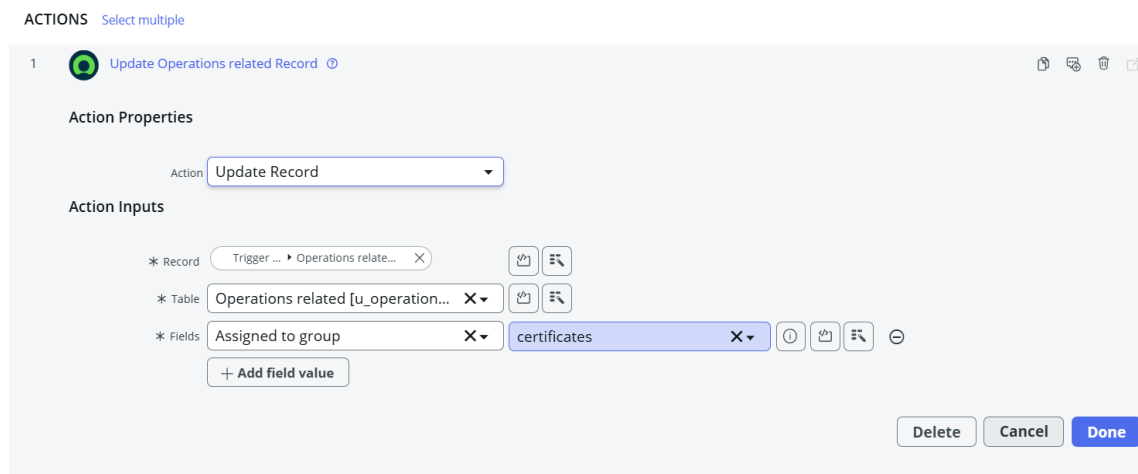
New Criteria

Run Trigger: For every update

Advanced Options ▼

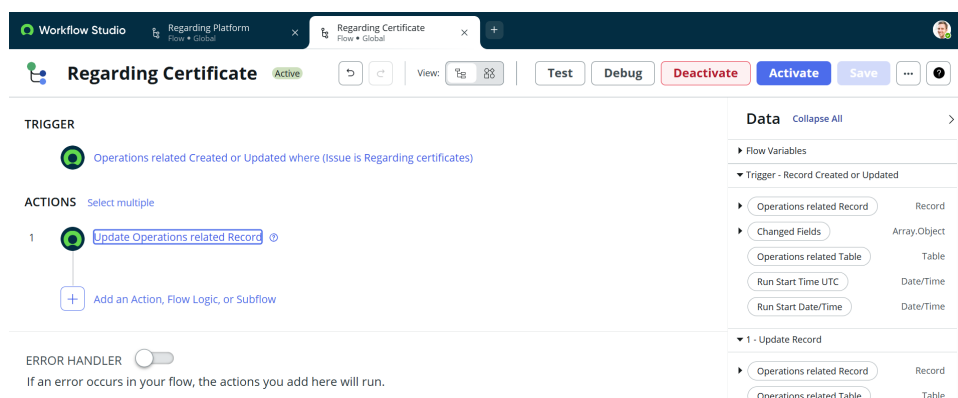
Add an Action:

1. Click **Add an action**.
2. Search for **Update Record** and select it.
3. In the **Record field**, drag the required fields from the **Data Panel** on the left.
4. Configure the update:
 - **Table:** Auto-assigned from trigger
 - **Field:** Assigned to Group
 - **Value:** Certificates
5. Click **Done**.



Final Steps:

- Click **Save** to save the Flow.
- Click **Activate** to enable it.



This Flow ensures that whenever a new **Operations related** ticket is created with the issue "Regarding Certificates", it will be **automatically routed** to the **Certificates group**. This eliminates manual assignment, speeds up issue resolution, and improves efficiency in ticket handling.

ii. Create a Flow to Assign operations ticket to Platform group:

6. Screenshots of Output:

After implementing the Flows in ServiceNow, the ticket assignment works as follows:

- When a ticket is created in the **Operations related** table with the issue "**Regarding Certificates**", it is **automatically assigned** to the **Certificates group**.
- When a ticket is created with issues like "**Unable to login to platform**", "**404 Error**", or "**Regarding User expired**", it is **automatically assigned** to the **Platform group**.

Operations related

Name

Search

Actions on selected rows...

New

All

<input type="checkbox"/>	Q	Name	Assigned to group	Assigned to user	Comment	Issue	Priority	Service request No	Ticket raised Date
		Hardin	Platform	(empty)		404 error		SEQ1001	(empty)
		Aaron	Platform	(empty)		regarding user expired		SEQ1003	(empty)
		Satish Kumar Itraju	certificates	(empty)		regarding certificates		SEQ1000	(empty)
		Tessa Young	Platform	(empty)		unable to login to platform		SEQ1002	(empty)

7. Conclusion:

The implementation of automated ticket assignment in ServiceNow has streamlined the support operations at **ABC Corporation**. By leveraging **Flow Designer**, tickets are now intelligently routed to the correct support groups based on the issue type. This eliminates manual intervention, reduces delays, and ensures efficient handling of incidents.

With the setup of **users, groups, roles, tables, ACLs, and automated flows**, the support process is now:

- **Faster** – Tickets reach the right team instantly.
- **Accurate** – Reduced chances of misrouting.
- **Efficient** – Optimized resource utilization across support groups.
- **Customer-focused** – Improved resolution times lead to higher customer satisfaction.

In summary, this project demonstrates how ServiceNow can be used to **enhance IT service management (ITSM)** by automating repetitive tasks and empowering support teams to focus on

resolving issues rather than managing ticket assignments.

GitHub link: <https://github.com/sandhya-sruthi/Streamlining-Ticket-Assignment-for-Efficient-Support-Operations.git>