Automated Network Request Managementin ServiceNow

INTRODUCTION:

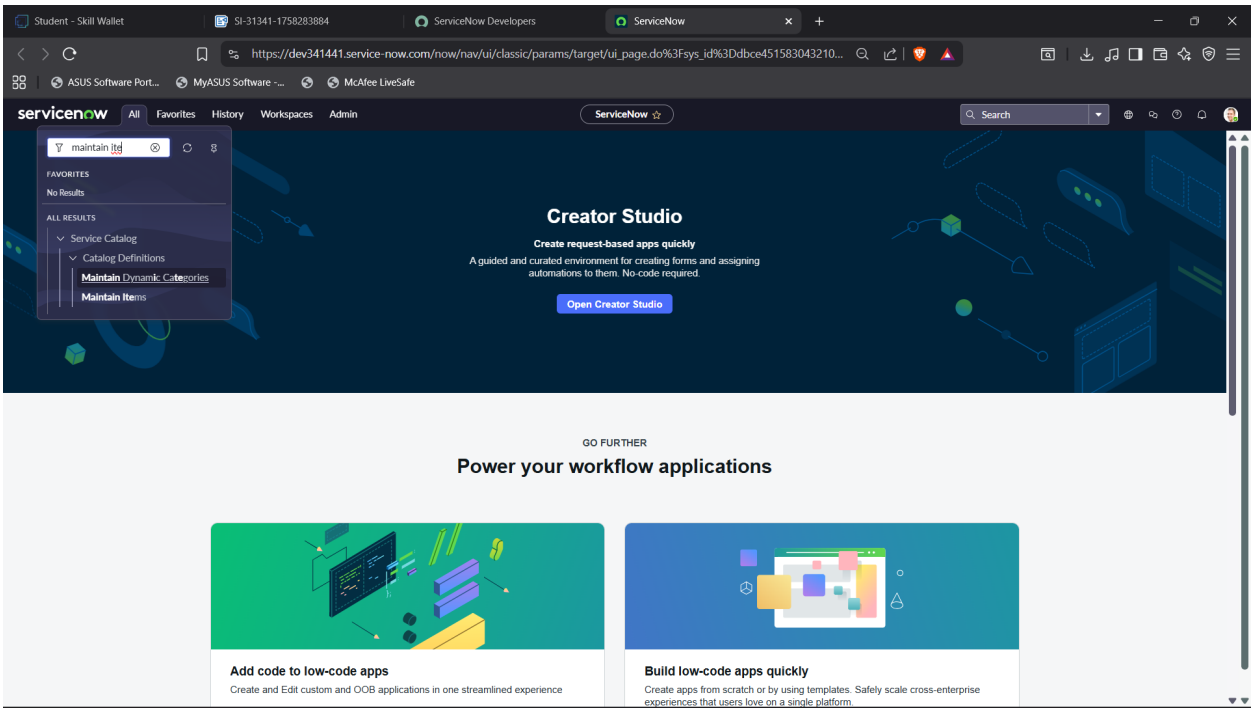
This project provides an automated solution in **ServiceNow** to manage network-related service requests. Through a self-service portal, users can easily submit requests, which are then validated, approved, and routed for fulfillment. Automated workflows handle approvals, notifications, and task assignments, while optionalintegrations with networktools reduce manual effort. The system also offers real-time updates and reporting to improve efficiency, transparency, and SLA tracking.

Process 1: Creationof Service Catalog– "Network Request"

Step 1: Navigate to Service Catalog

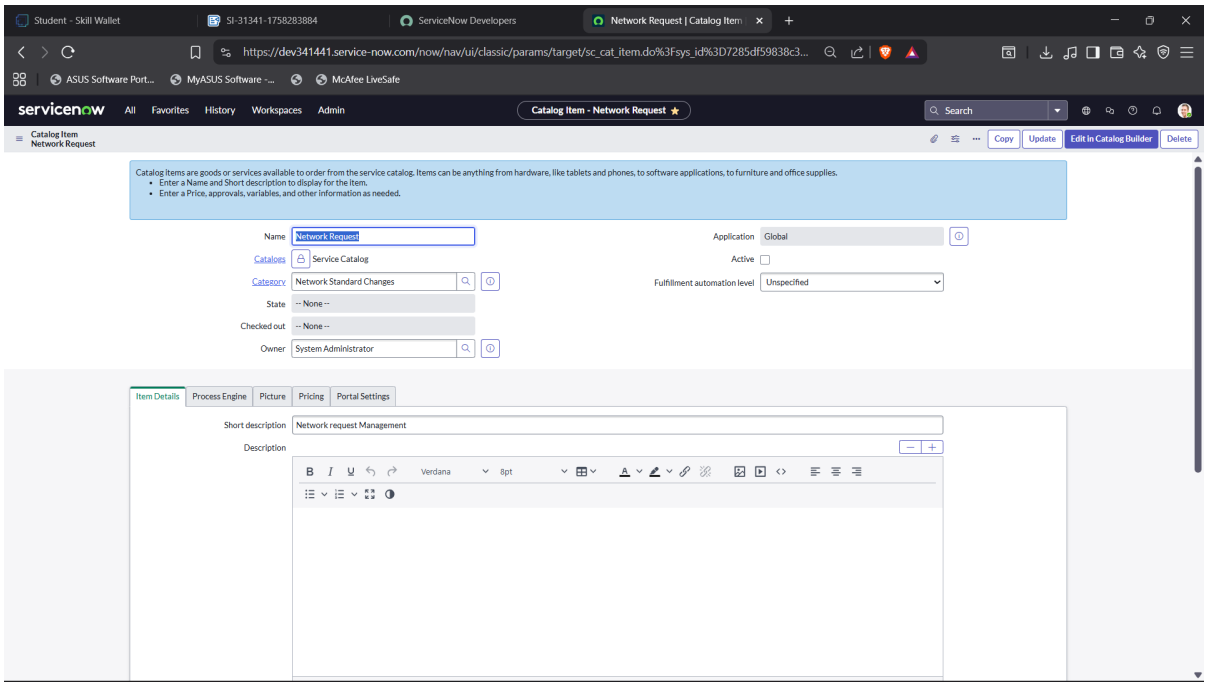
1. Open the **Application Navigator**in ServiceNow.
2. Go to:

   All → Service Catalog→ Maintain Items



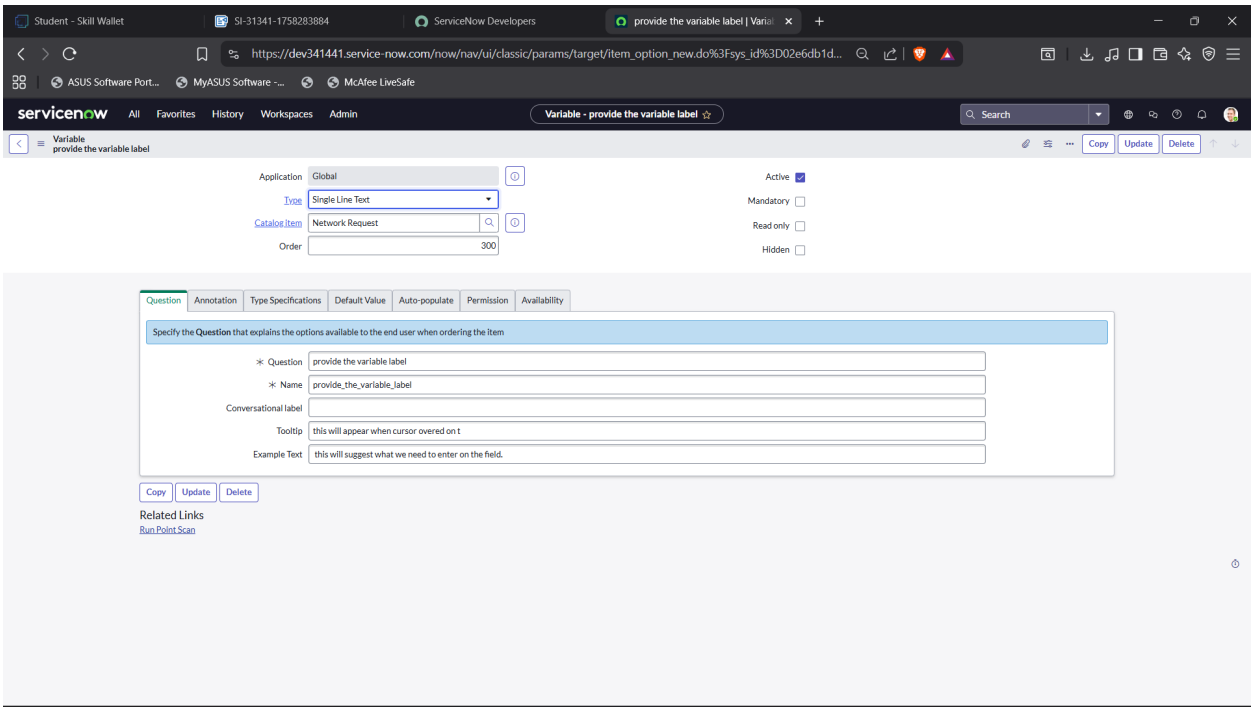
Step 2: Create New Catalog Item

1. Click on **New**.
2. Fill the followingdetails:
    a. **Name**: NetworkRequest
    b. **Catalog**: ServiceCatalog
    c. **Category**: Networkand conncetivity
    d. **Short Description**: Network Request Management
3. Click on **Save**.



Step 3: Configure Variables

1. Open the newly created **Network Request**catalog item.
2. Scroll down to the **Variables** related list → Click **New** for each variable.
3. Fill out the following for each variable:
    a. **Type**: Singleline text, Choice,Reference, etc.
    b. **Order**: e.g.,100, 200, 300 (controls displayorder)
    c. **Question**: Label shown on the form
    d. **Name**: Technical name (used in scripts)



e. **Tooltip**: Info shown on mouse hover

f. **Example Text**: Placeholder help text

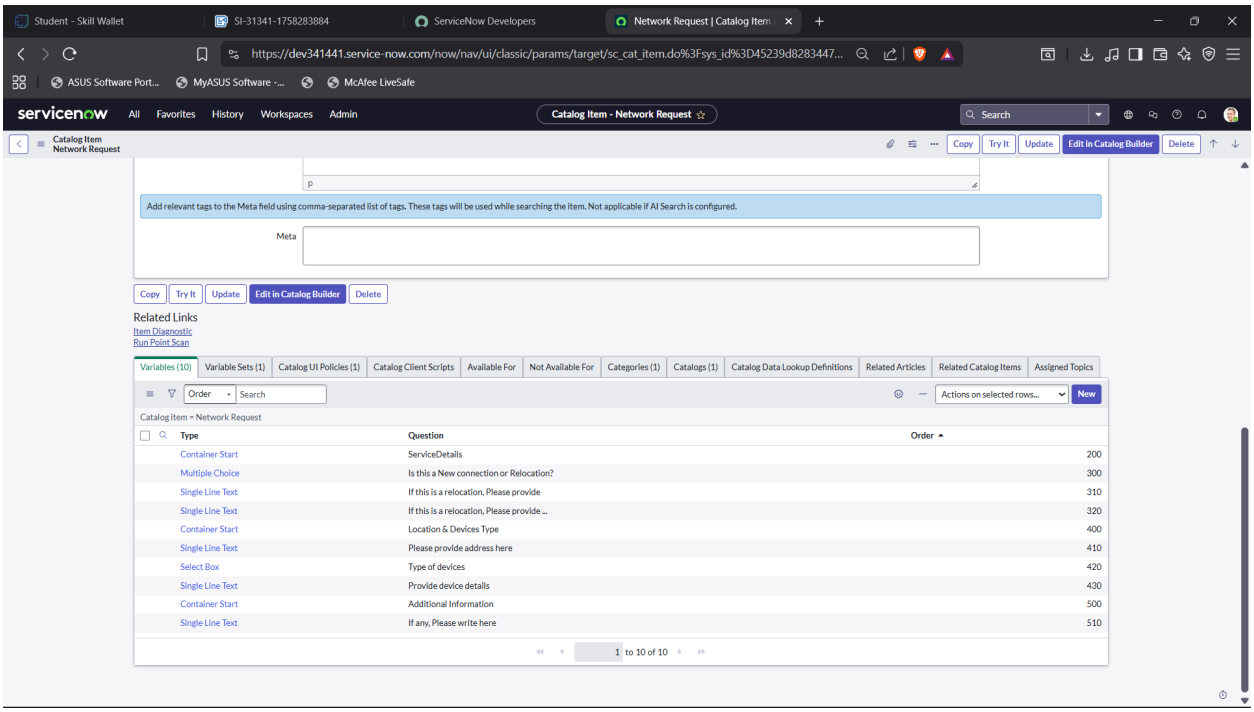
g. **Mandatory / Read-Only**: As required

h. **Auto-populate**: Use dot-walking for dependent values

Step 4: Variable TypesConfiguration

Type	Question	Order
Container Start	Service Details	200
Multiple Choice	Is thisa new network connection or arelocation?	300
Single LineText	If thisis a relocation, Please provide...	310

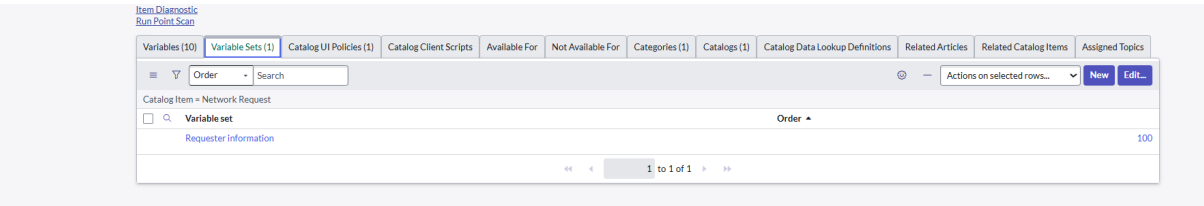
Single LineText	If thisis a relocation, Please provide...	320
Container Start	Location &Devices Type	400
Single LineText	Please provideaddress here	410
Select Box	Type of devices	420
Single LineText	Provide devicedetails	430
Container Start	Additional Information	500
Single Line Text	If any, Pleasewrite here	510



Step 5: Configure VariableSet – Requester Information

5.1 CreateVariable Set

1. Navigate to **Variable Sets** under ServiceCatalog.



2. Click on **New**.

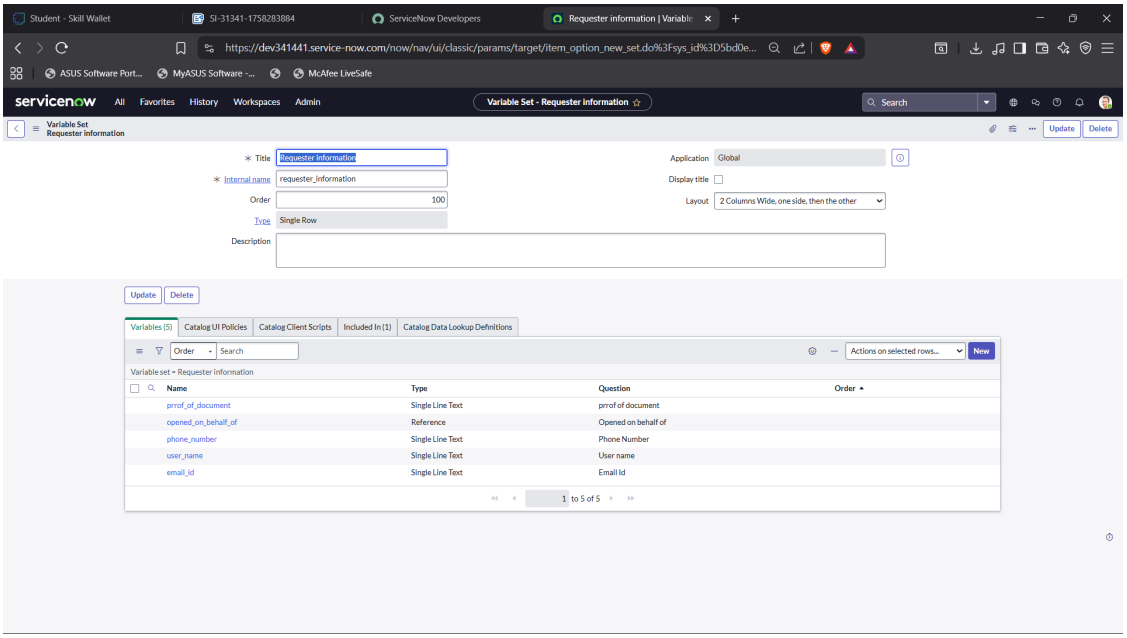
3. Fill the followingdetails:
    a. **Title**: Requester information

    b. **Internal Name**: requester_information (auto-filled)
    c. **Order**: 100

    d. **Type**: SingleRow
    e. **Layout**: 2 Columns Wide, one side,then the other

    f. Check the box: **Display title**

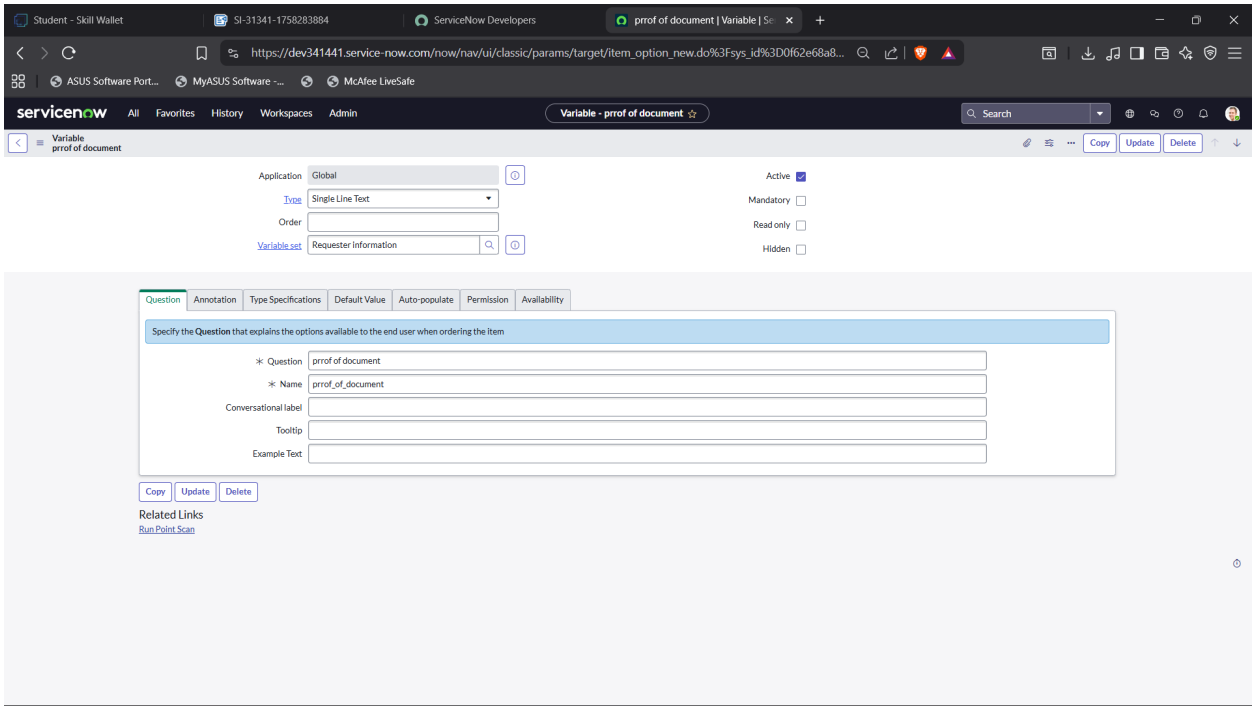
4. Click **Submit** or **Update**



Step 5.2: Add Variablesto the Variable Set "Requester Information"

After creatingthe variable set, now it's time to add the variables one by one.

1. **Opened on behalf of**
    a. Type: **Reference**
    b. Reference to: **User *sys_user+**
    c. Name: opened_on_behalf_of
    d. Order: 100
    e. This allows the requester to select a user they are raisingthe request for.



2. **Email ID**
    a. Type: **Single Line Text**

b. Name: email_id
c. Order: 200
d. This will be auto-filled based on the user selectedin "Opened on behalf of".
e. You can use a scriptor dot-walking to populate the email field.

3. User Name

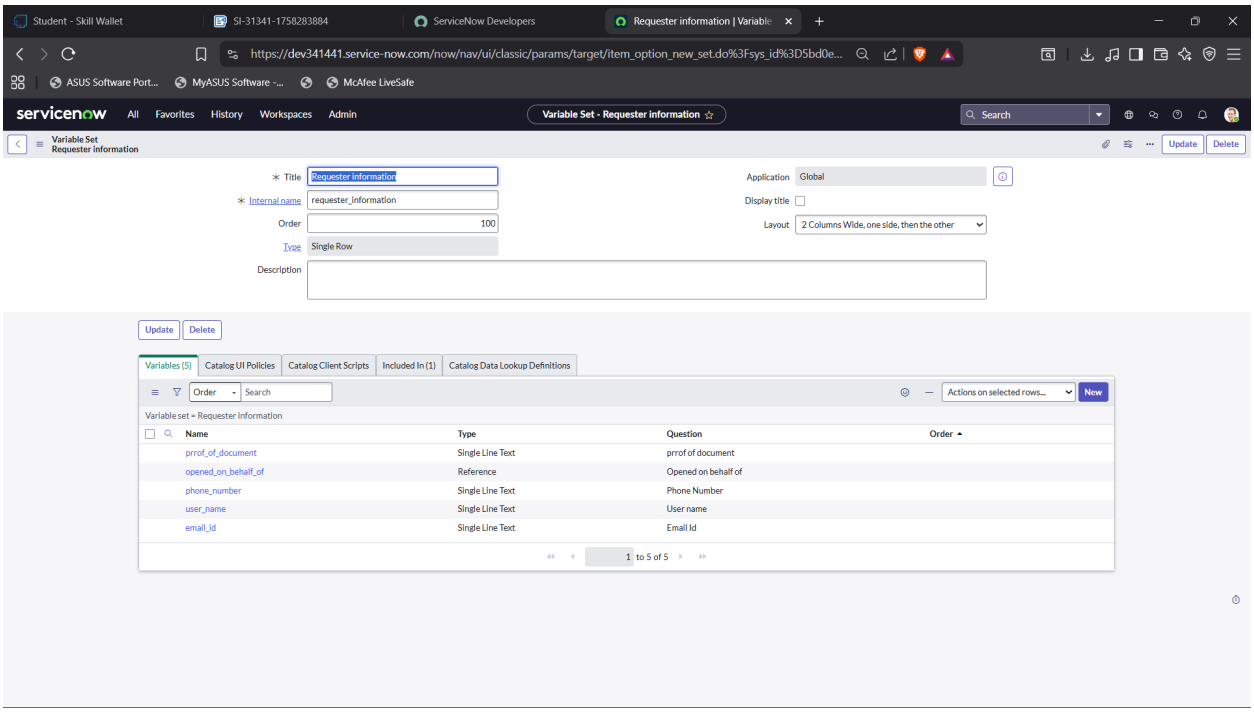
a. Type: **Single Line Text**
b. Name: user_name
c. Order: 300
d. This will also be auto-populated based on the user selected.
e. Fetch the full name from the User table.

4. Phone Number

a. Type: **Single Line Text**
b. Name: phone_number
c. Order: 400
d. Same as above,it can be fetched using dot-walking or client script.

5. Proof of Document

a. Type: **Attachment**
b. Name: proof_of_document
c. Order: 500
d. This allows users to uploada file (such as proof or ID documents).



When a user is selected in the **Opened on behalf of** field, we want to automatically populate:

- Email ID
- User Name
- Phone Number

Steps to Auto-populate Fields

1. Open the VariableSet

a. Navigate to: **Service Catalog> Catalog VariableSets**

b. Open your variableset: **Requester Informatio**

2. Create a Catalog ClientScript

a. Navigate to: **Service Catalog> Catalog ClientScripts**

b. Click **New**

c. Fill in details:

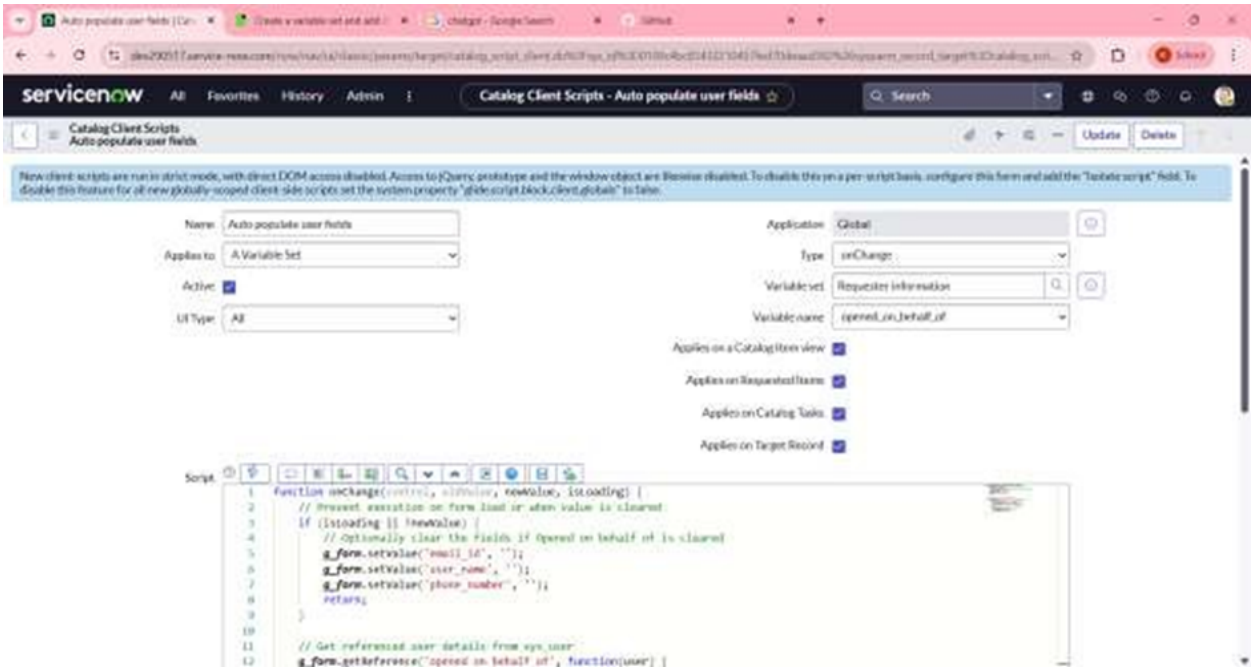
   i. **Name**: Auto PopulateUser Info

   ii. **Applies to**: CatalogItem

   iii. **Variable Set**: Select*Requester Information*

   iv. **UI Type**: All

   v. **Type**: onChange



3. Configure the ScriptFields

a. **Variable name**: opened_on_behalf_of

b. Script:

Step 6: Catalog UI Policy Configuration

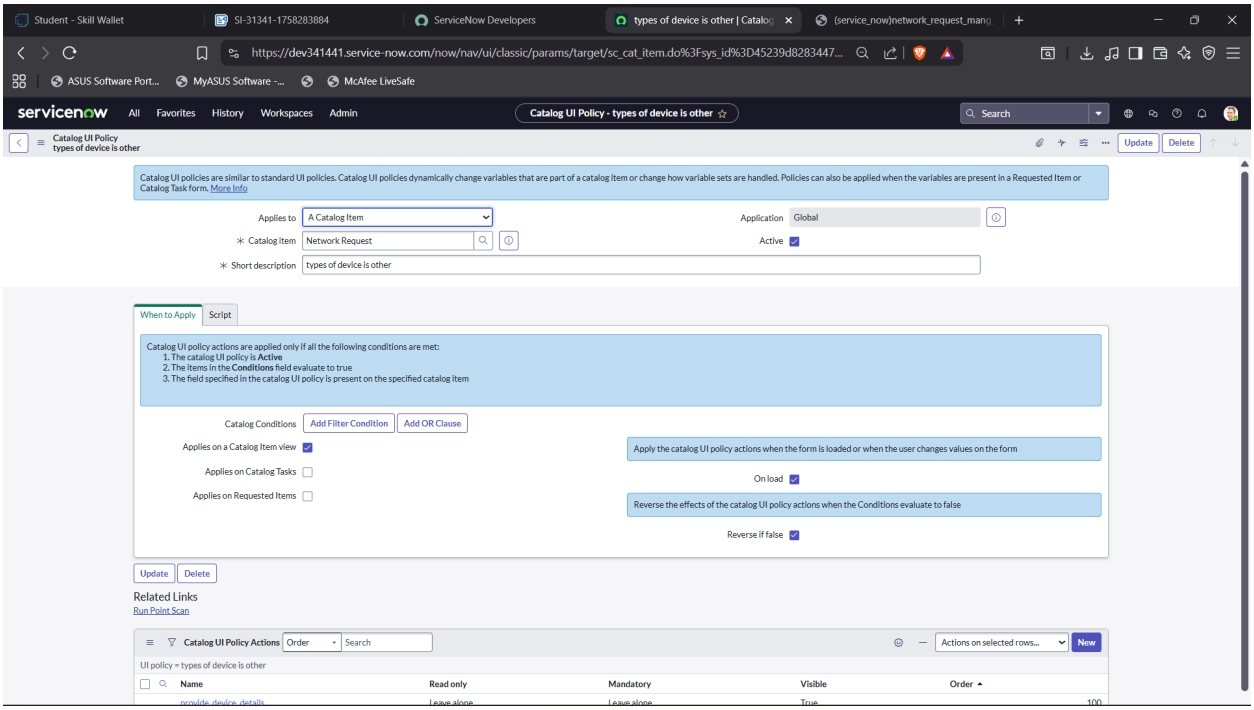
Goal: Show " Providedevice details here " fieldwhen **Types of Devices= Others.**

1. Navigate to the **Network Request** catalog item.
2. In the relatedlist, go to **Catalog UI Policies** → Click **New**.
3. Fill in:
    a. **Applies to**: Catalog Item
    b. **Catalog Item**: Network Request
    c. **Condition**: Types of devicesis Others
4. Click **Save**.
5. In the relatedlist, click **New** under**UI Policy Actions**.
6. Set:
    a. **Catalog Item**: Network Request

b. **Variable name**: Provide device detailshere
c. **Visible**: True

7. Click **Update** to save policy.

8. **Test the form** to ensure the fieldappears based on selection.



Process 2: Creationof Table and Fields in ServiceNow

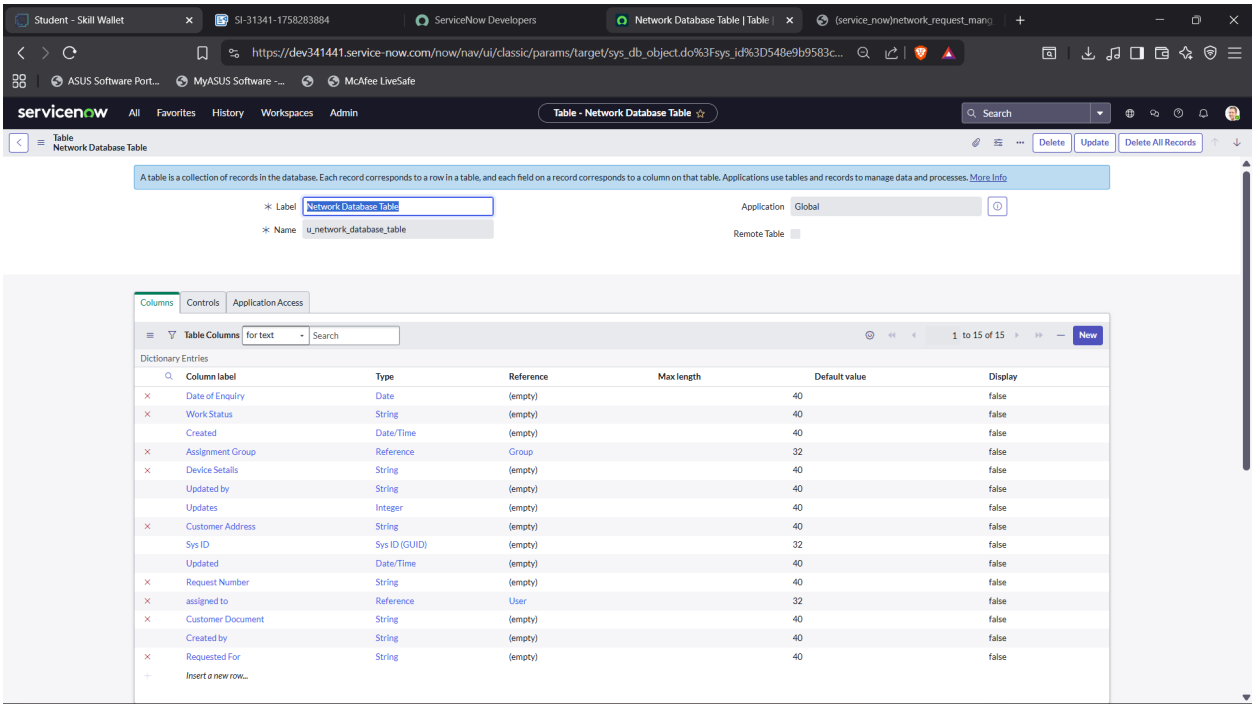
>Network Database Table

Step 1: Create a New Table

1. Navigate to the Application Navigator.
2. Type: Tables under the **System Definition** module.

3. Click on **Tables**.
4. On the top-right corner, click on **New** to createa new table.

5. Fill in the table details:
    a. **Label**: *Network DatabaseTable*
    b. **Name**: Automatically generated (or customizeif needed).
    c. Keep **Auto-generate schema** checked.
6. Click **Submit** to createthe table.



Step 2: Add custom fields

These fields are **custom fields** thatyou will manuallyadd in the Table Columns section of your custom table.

1. Name: u_request_number

a. **Label**: RequestNumber
b. **Type**: String

c. **Reference**: —

d. **Explanation**: A unique identifier for the request.Can be filled manually or auto-generated using a Business Rule.

2. **Name: u_assignment_group**

a. **Label**: Assignment Group

b. **Type**: Reference

c. **Reference**: Group (Group table)

d. **Explanation**: Definesthe team or group responsible for fulfilling the request.

3. **Name: u_customer_document**

a. **Label**: CustomerDocument

b. **Type**: String

c. **Reference**: —

d. **Explanation**: Storesa document referenceor identifier relatedto the customer, such as an ID proof or contract reference

4. **Name: u_assigned_to**

a. **Label**: Assigned To

b. **Type**: Reference

c. **Reference**: User(User table)

d. **Explanation**: The specific user assigned to handle the request.

5. **Name: u_device_details**

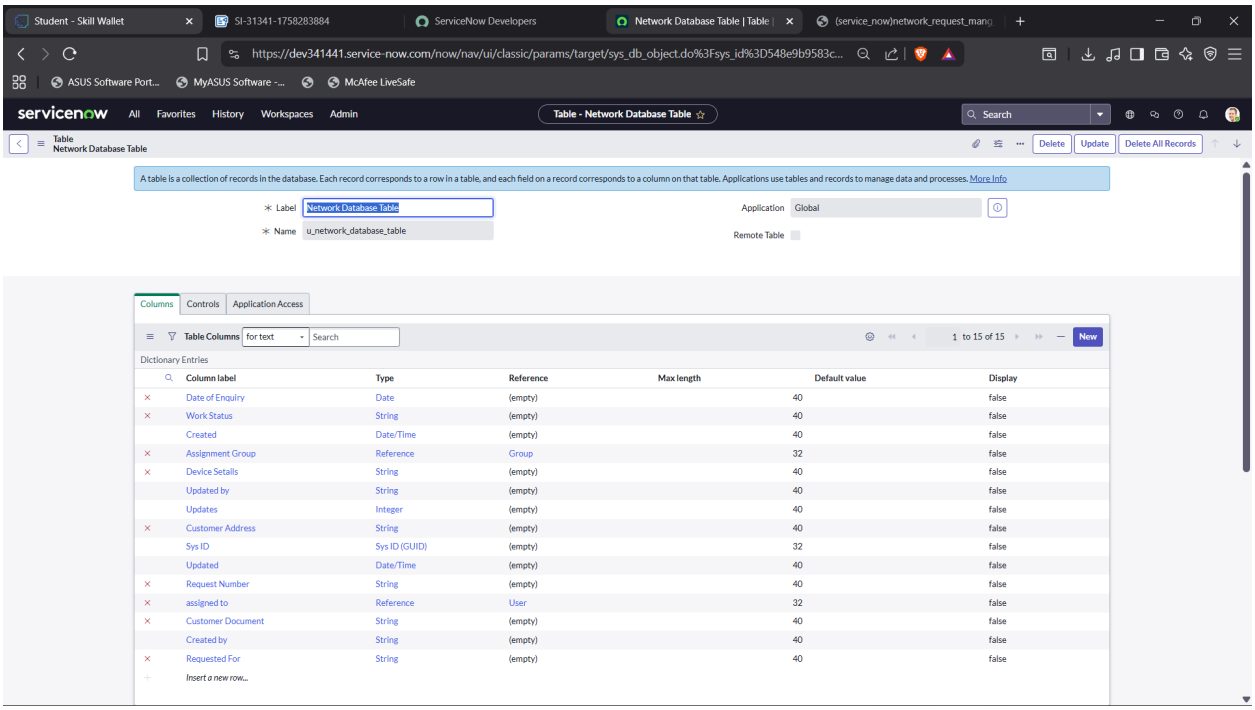
a. **Label**: DeviceDetails

b. **Type**: String
c. **Reference**: —
d. **Explanation**: Capturestechnical details or specifications of the device involved in the request.

6. **Name: u_date_of_enquiry**
   a. **Label**: Date of Enquiry
   b. **Type**: Date
   c. **Reference**: —
   d. **Explanation**:The date when the enquirywas received from the customer.
7. **Name: u_customer_address**
   a. **Label**: CustomerAddress
   b. **Type**: String
   c. **Reference**: —
   d. **Explanation**: The physical or mailing addressof the customer.
8. **Name: u_approval_state**
   a. **Label**: Work Status
   b. **Type**: String
   c. **Reference**: —
   d. **Explanation**: Indicatesthe current approvalor work statusof the request.
9. **Name: u_requested_for**
   a. **Label**: RequestedFor
   b. **Type**: String *(Normallythis should be a Referenceto sys_user,*

but in your screenshot it's String)

c. **Reference**: — *(unless you changeit to a Reference type)*
d. **Explanation**: Specifiesthe end-user for whom the request is being made.



To Autopopulate Database Number

Using Number Maintenance

ServiceNow has a built-infeature called **Number Maintenance** to manage auto-number sequences for any table.

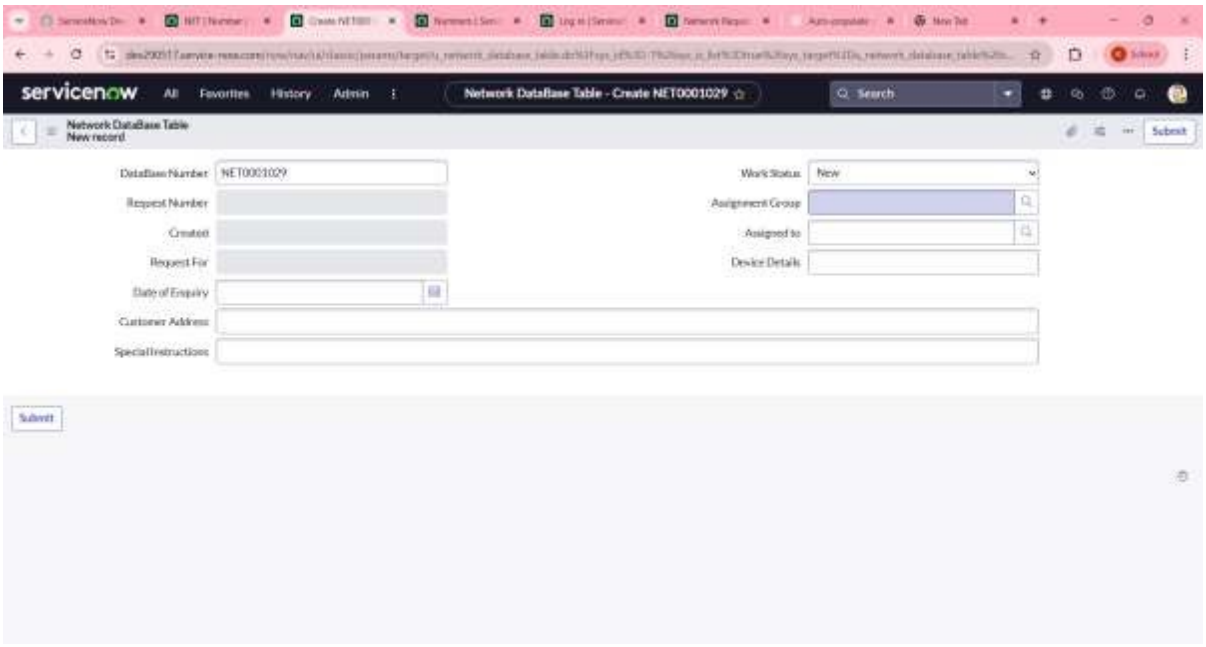
1. Navigate to:

   System Definition > Number Maintenance.
2. Click**New**.
3. Fill in details:
   a. **Table** → selectyour Network DatabaseTable.
   b. **Prefix** → NET.

c. **Current Value** → 1003 (or any starting numberyou want).

d. **Number of Digits**→ 7.

4. Save.



Network Task Table

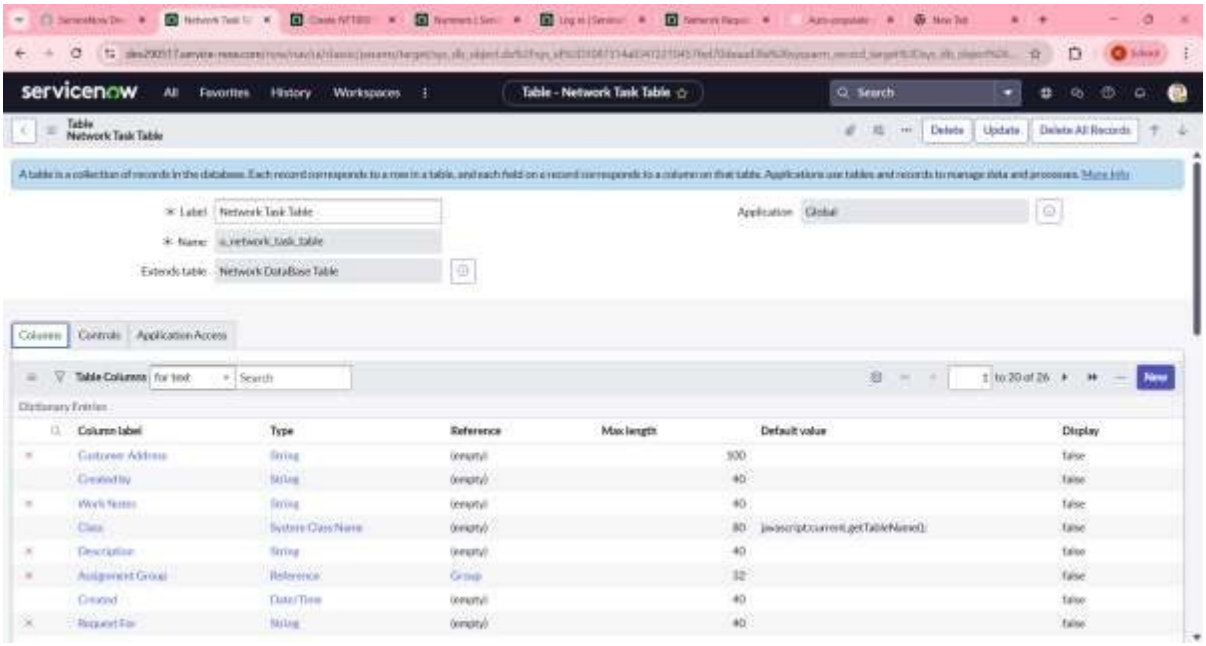
Step 1: Create the Child Table (NetworkTask Table)

1. Navigate to:
   System Definition > Tables
2. Click**New**.
3. Fill in details:
   a. **Label** → NetworkTask Table
   b. **Name** → auto-generated (u_network_task_table)
   c. **Extends Table** → select **Network DatabaseTable** (u_network_database_table)

This is the importantpart → by choosing **Extends Table**, your Network

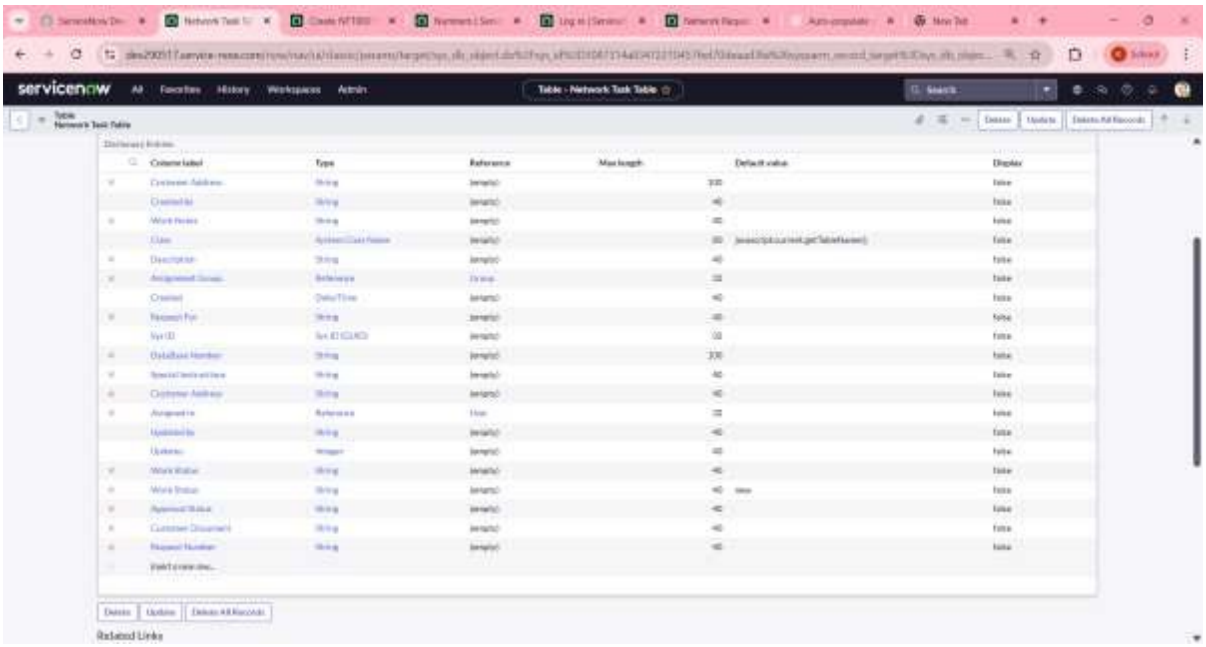
Task Table will automatically inherit all fields from the parent.

4. Save the record.



Step 2: Verify InheritedFields

- Open the new table (NetworkTask Table).
- Go to **Columns** tab.
- You'll see:
    - Fields from parent (Database Number, Request Number,Request For, etc.)
    - Plus any new fieldsyou add specifically for tasks(Task Number, Work Status, Assigned to, etc.).



Step 3: Configure Auto Numbering for Task Table

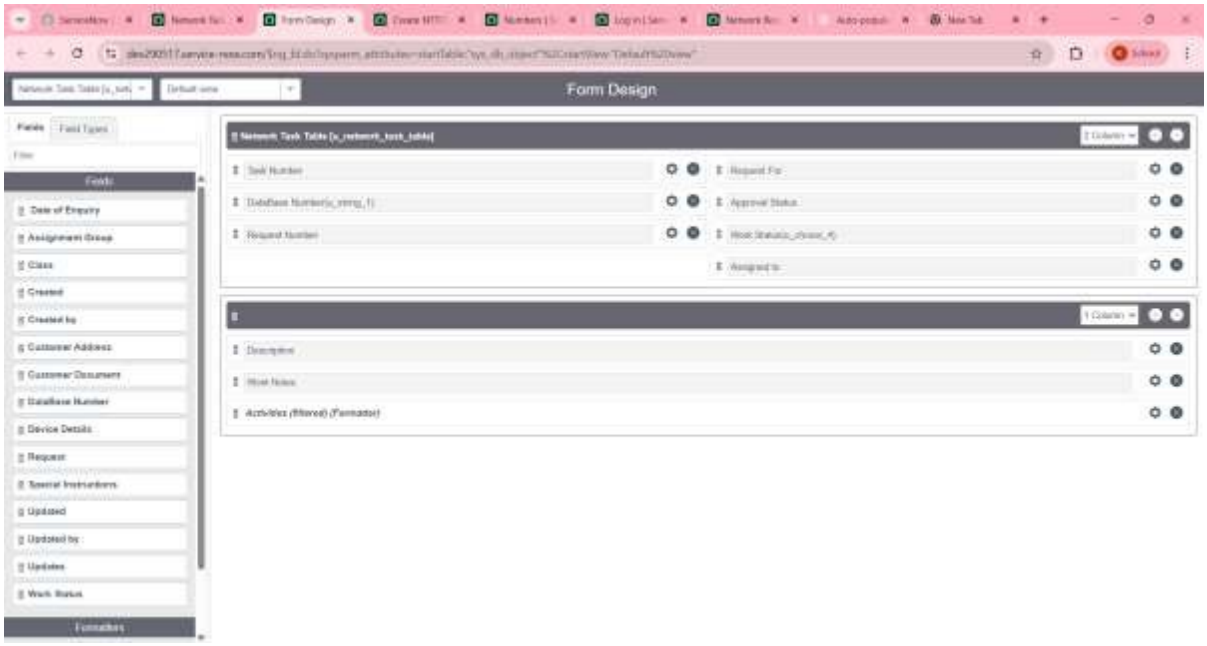
If you want separateauto numbering for **NetworkTasks** (like NTT0001001):

1. Navigate to **System Definition > Number Maintenance**.
2. Click**New**.
3. Fill details:
    a. **Table** → NetworkTask Table
    b. **Prefix** → NTT
    c. **Current Value** → 1001
    d. Number of Digits→ 7
4. Save.

Now each task will have a unique Task Number (NTT0001001, NTT0001002 ...).

Step 4: Adjust the Form Layout

1. Open a record in **Network Task Table**.
2. Right-click the header → **Configure > Form Layout**.
3. Add inherited fields (Database Number,Request Number, etc.)and new fields (Task Number, Work Notes, etc.).
4. Arrange as you like.



Process 3: Request ApprovalsCreation

The goal is to display **approval records**directly on the **Network Database table** form.
By creatinga relationship between**Network Database Table** and**Approval (sysapproval_approver)**:

a. We can see which approvalsare associated with each record.

b. We avoid searchingin a separate table.

c. The refineQuery ensures only relevant approvals (based on sourcetable and document ID) are shown.

Steps to Create the Related List with Script

1. **Navigate to Relationships**

1. Go to **System Definition → Relationships**.
2. Click **New**.

2. Fill in the Relationship Details

d. **Name** → Request Approvals

e. **Applies to table** → Network Database Table *u_user_network_database+

f. **Queries from table** → Approval *sysapproval_approver+

g. **Active** → Checked.

3. Add the refineQuery Script

The script filtersthe approvals to only show records relatedto the current Network Database record.

```
(function refineQuery(current, parent) ,

  current.addQuery('source_table', parent.getTableName());

  current.addQuery('document_id', parent.sys_id);

-)(current, parent);
```

Script Explanation:

h. source_table → Ensures only approvals linkedto this specifictable are fetched.

i. document_id → Matchesthe approval record to the exact parentrecord.

j. state filter (commented out) → Can exclude approvalsnot required.

4. Save and Verify

1. Click **Update**.
2. Open a **Network DatabaseTable** record.
3. You should see the **RequestApprovals** related list populated with the matching approval entries.

Steps to Add the Related List to the Form

1. Open any record from the **NetworkDatabase Table**.
2. Click the **context menu** (three dots in the top right of the form).
3. Navigate to **Configure > Related Lists**.
4. In the list of available related lists, select**Approval Request**.
5. Save the form configuration.
6. Refresh the record — you shouldnow see the **RequestApprovals** related list at the bottom of the form, displaying:
    a. **State**
    b. **Approver**
    c. **Comments**
    d. **Approval for**
    e. **Created**

Creation &Implementation of Flows,Actions in Flow Designer

Flow Designer in ServiceNow to automate the **Network Request** process. The flow managesthe entire lifecycleof a request — from capturing catalog variables, creating a record in the Network Database, sending

notifications, requesting approvals, handling logic conditions, and updating records — all without manual intervention.

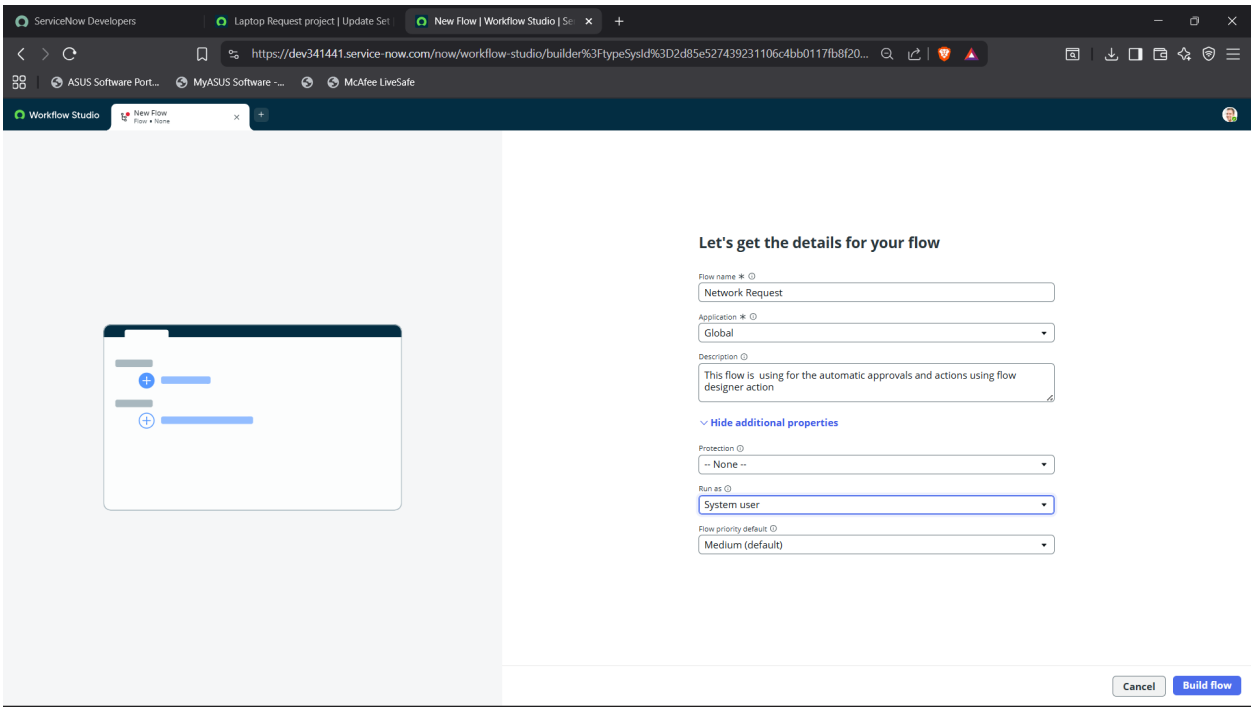
This ensures:

- Consistency in processing requests
- Faster execution
- Fewer manual errors
- Clear traceability of actions

Steps to Create the Flow

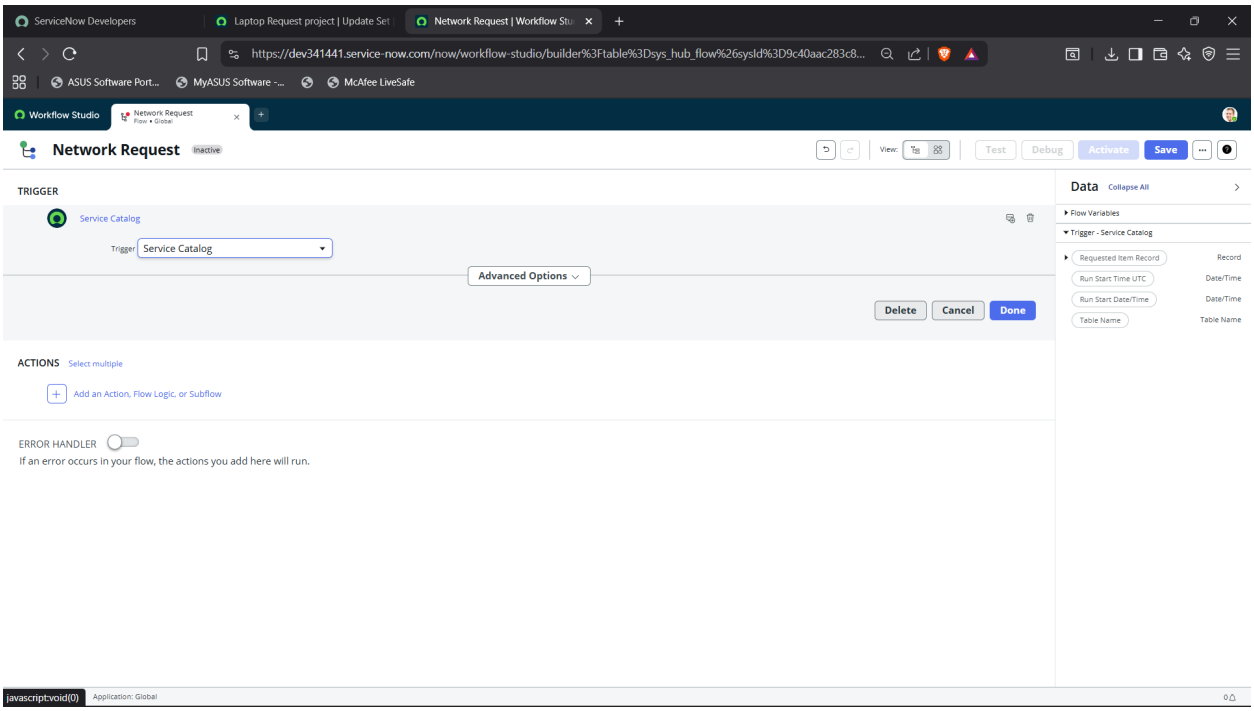
1. **Creating the Flow**

1. Navigate to **Flow Designer**home page.
2. Click **New** to createa new flow.
3. Enter:
    a. **Flow Name:**Network Request
    b. **Description:** *(e.g., Automates networkrequest creation, approvals, and updates.)*
4. Click **Build Flow**.



2. Configuring the Trigger

1. Click the **(+)** iconto add a trigger.
2. Select:
    a. **Trigger Type:** Application → Service Catalog
3. Click **Done**.



3. Adding Actions

a. Get Catalog Variables

i. Click **Actions**.

ii. Search for **Get CatalogVariables**.

iii. Select **Get Catalog Variables**.

iv. Configure **Action Inputs**:

1. **Trigger → Service Catalog→ Requested Item**

v. In **Template catalog items**:

1. **Select Table:**Network Request
2. Move required variablesto the **Selected** area.

vi. Click **Done**.

b. Create Record

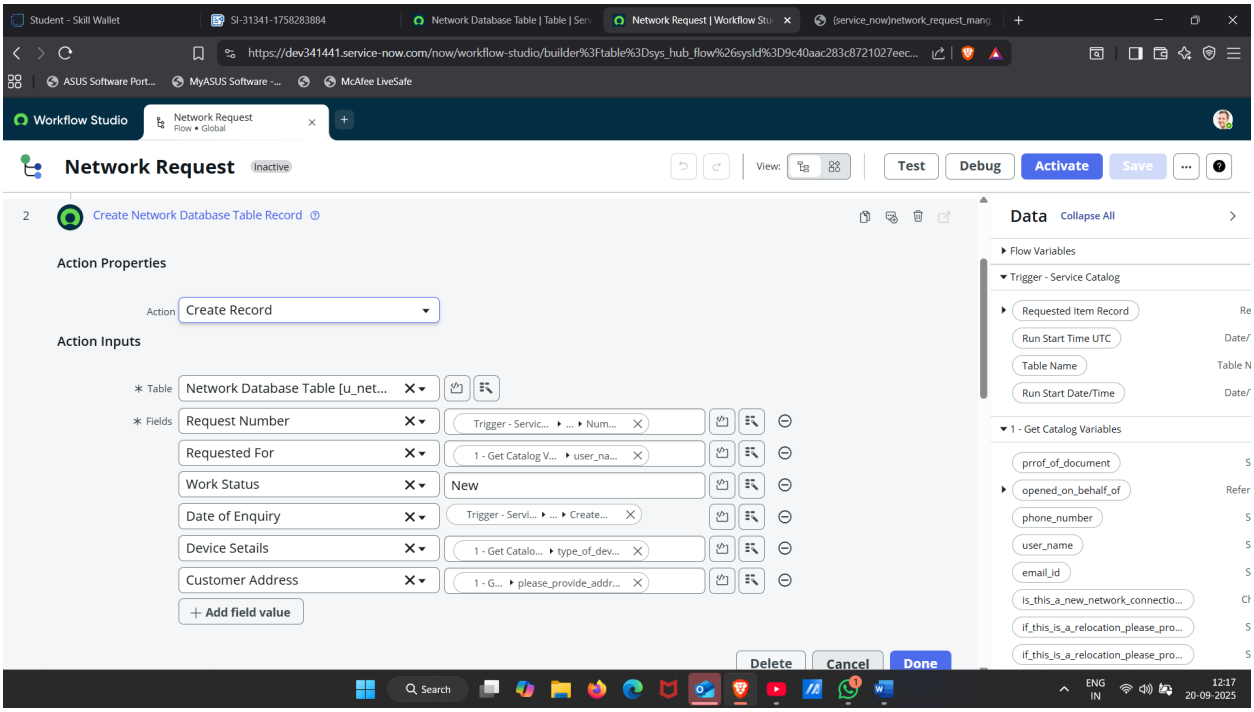
i. Add a new action → **Create Record**.

ii. Select **Table:** Network Database.

iii. Click **Add Fields** andconfigure:

1. Map catalog variables to the respective table fields as per your requirements .

iv. Click **Done**.



c. Send Email

i. Add a new action → **Send Email**.

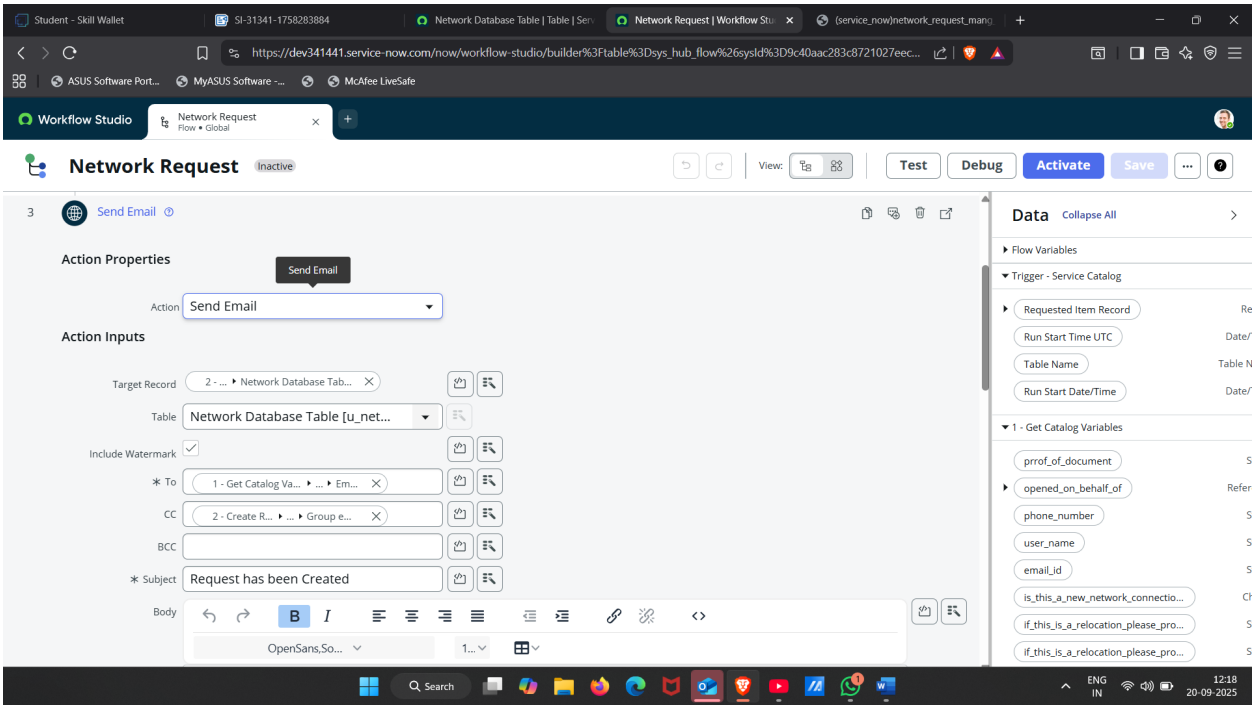
ii. **Target Record:** Select → **Create Record→ Network DatabaseTable**

(auto-selected).

iii. Configure:

1. **To / CC / BCC:** Static or dynamic recipients.
2. **Subject & Body:** Use variablesand static text as shown in the design screenshot.

iv. Click**Done**



d. Ask for Approvals

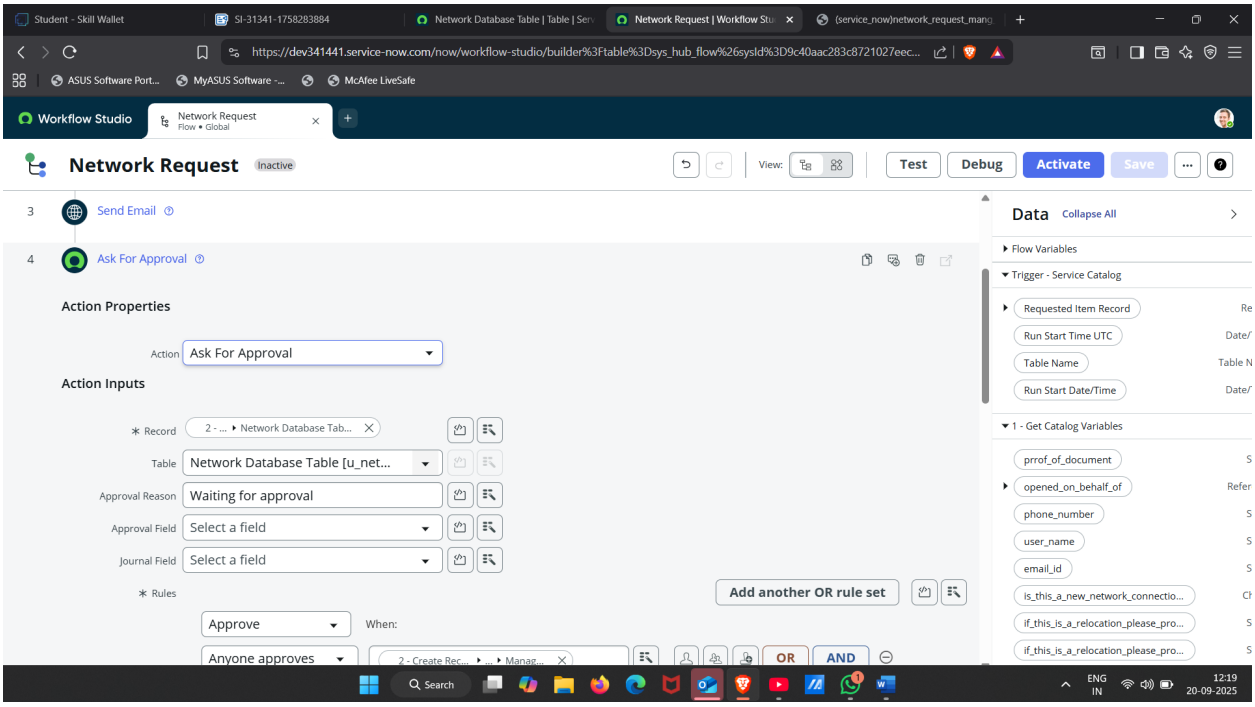
i. Add a new action → **Ask for Approval**.

ii. **Target Record:**Create Record → Network DatabaseTable.

iii. Configure:

1. **Approval Reason:**"Waiting for Approval".
2. **Approval Rules:** Approve, Reject,Approve/Reject.
3. **Approval Type:** Anyone approves,Everyone approves, etc. (static/dynamic assignment).
4. Here we chose abel tuter

iv. Click**Done**



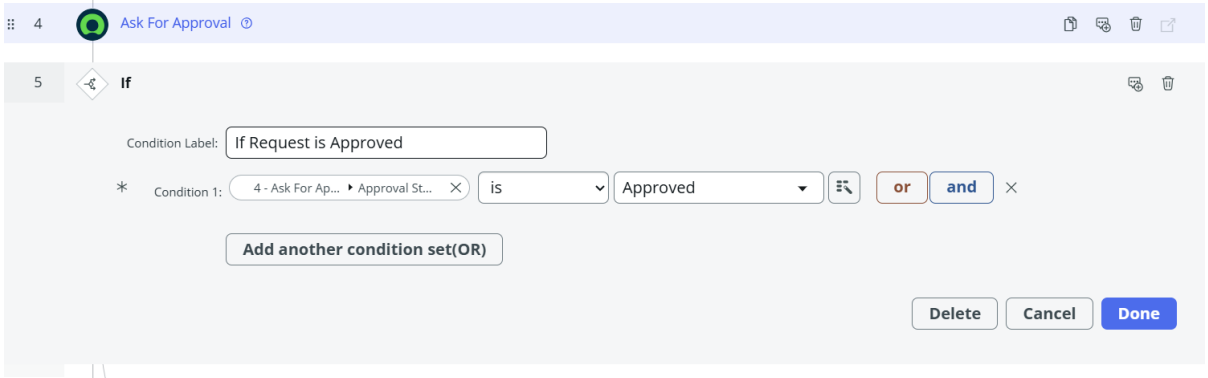
e. Flow Logic (If Condition)

i. Add a new action → **Flow Logic** → **If Condition**.

ii. Configure:

1. Condition: "Ask for approvals" state is Approved .

iii. Click **Done**.



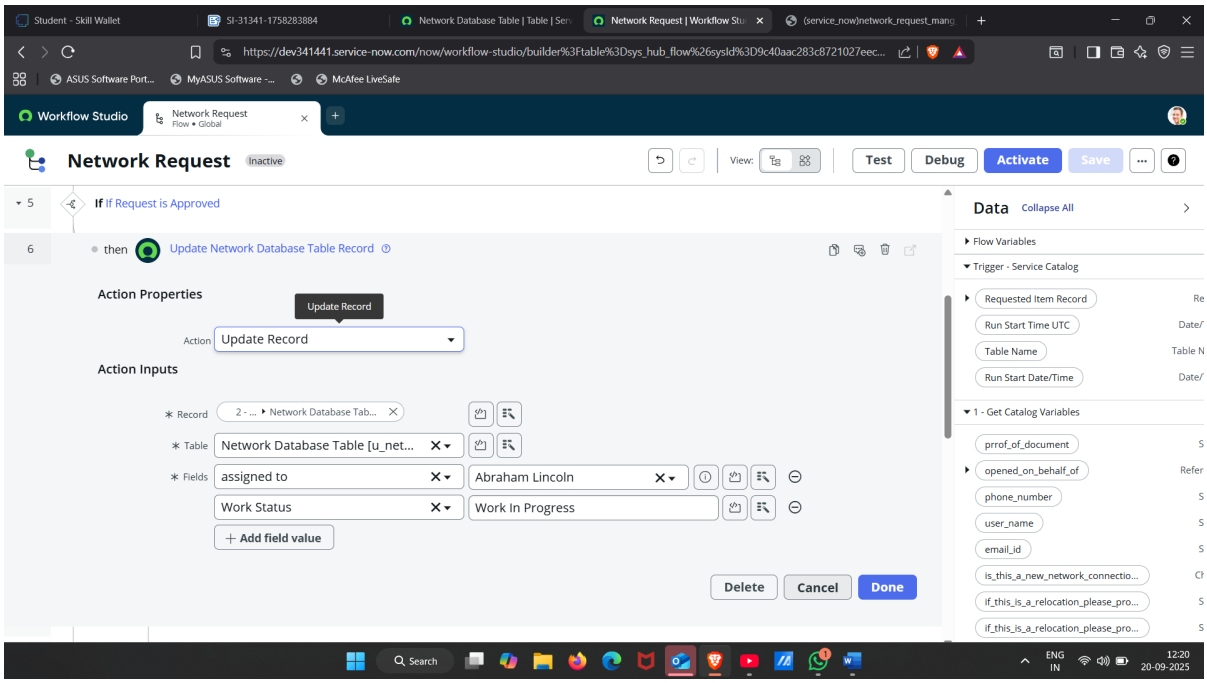
f. Update Record

i. Add a new action → **Update Record**.

ii. **Target Record:** Create Record → NetworkDatabase Table (auto- selected).

iii. Configure required fields (likeAssigned to ->Abraham Lincoln Work Status -> Work in Progress).

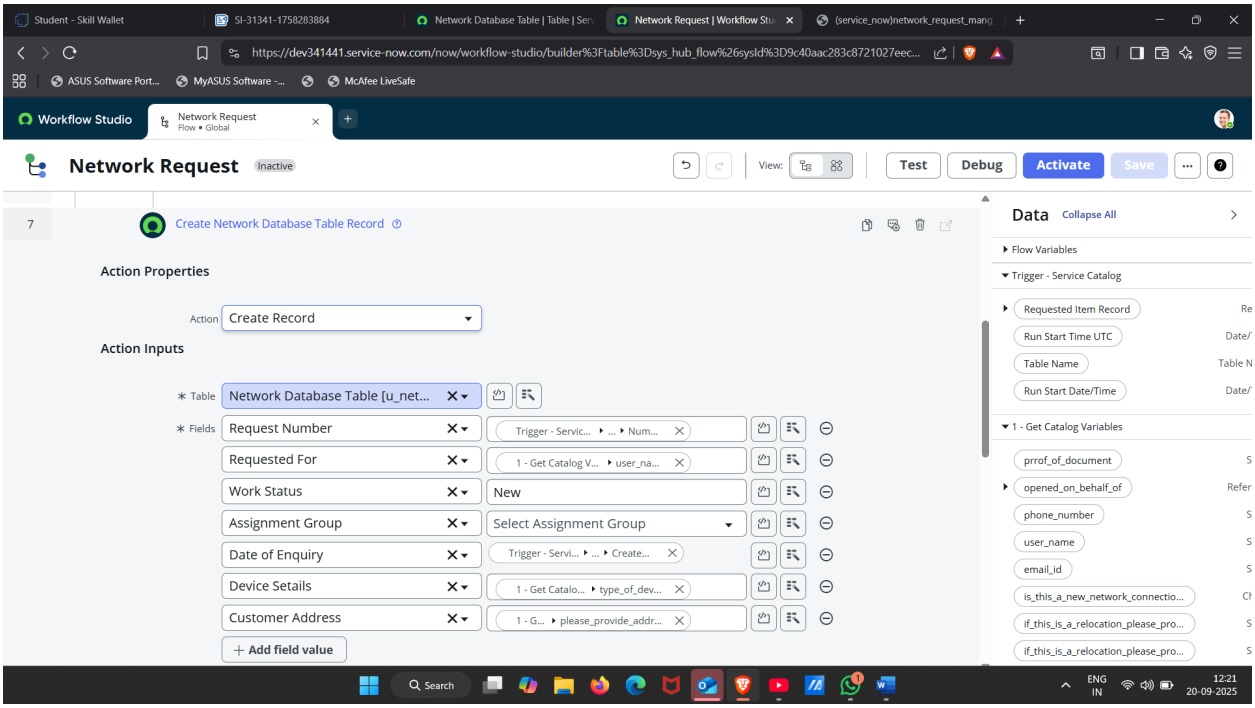
iv. Click **Done**.



G: Create Network Task Table Record

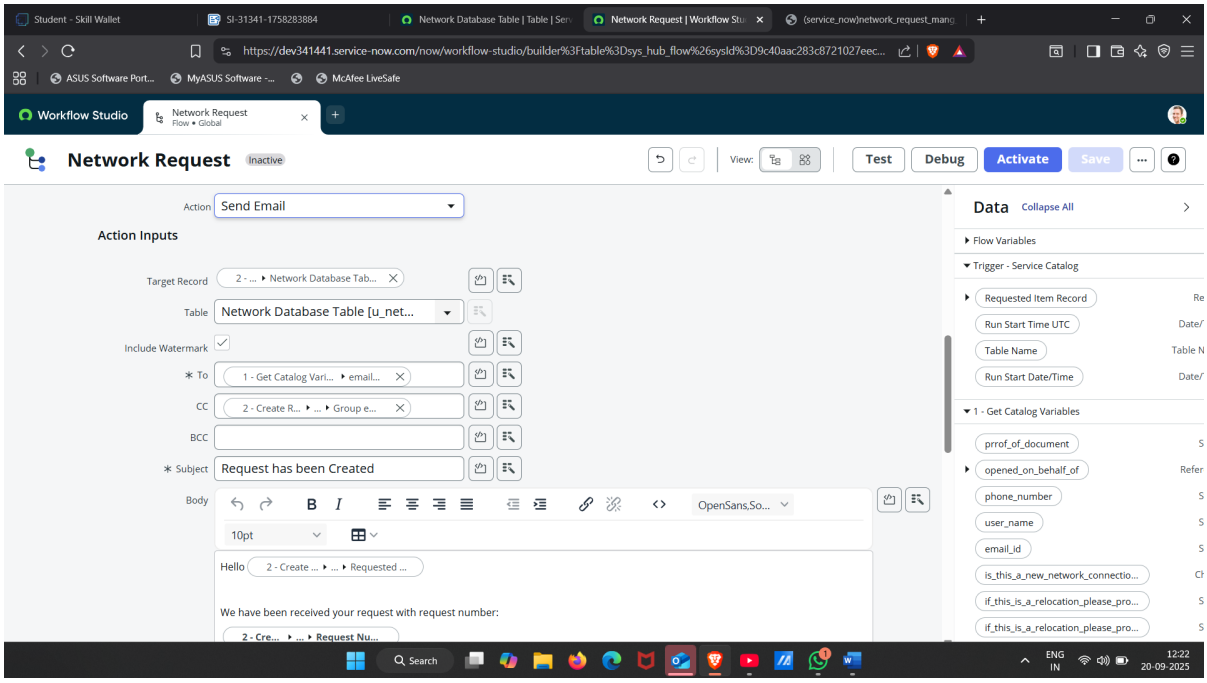
1. Add a new action → **Create Record**.
2. Select **Table** → *Network Task Table [u_network_task]*.

3. Under **Fields**, map Service Catalogvariables to the table fields:
    a. **Database Number** → Auto-populated (Number Maintenance / Business Rule).
    b. **Request Number** → Map from CatalogVariable (e.g., *Request Number*).
    c. **Requested For** → Map from CatalogVariable (Requested For).
    d. **Description** → Map from CatalogVariable (Description of request).
    e. **Priority** → Map from CatalogVariable (Priority).
    f. **Assignment Group** → Network Assignment Group (static or from variable).
    g. **Assigned To** → Leave blank initially (will be set later after approval).
4. Click **Done**.



H. SendEmail (Request Created)

1. Add a new action → **Send Email**.
2. Target Record → *Create Network Task Table Record*.
3. Configure:
    a. **To:** Requestor / RequestedFor.
    b. **Subject:** `"Your Network Task has been created."`
    c. **Body:** Include Task Number,Database Number, RequestNumber.
4. Click**Done**.



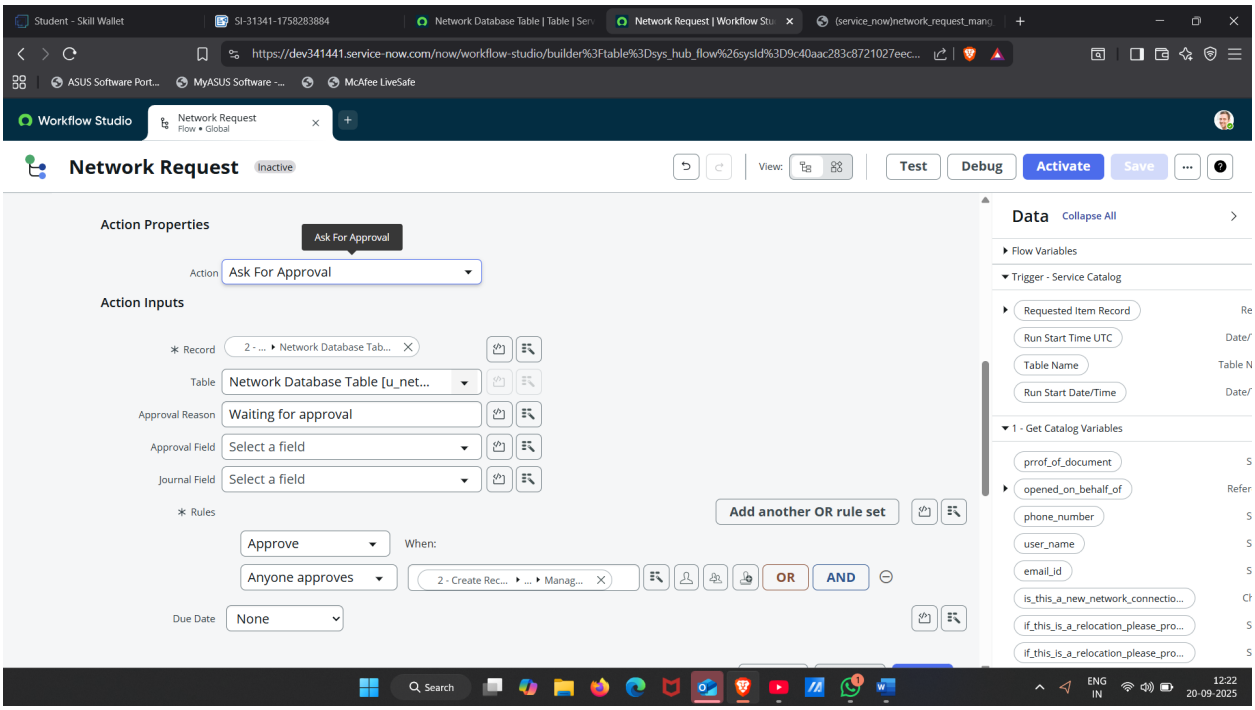
I. Ask for Approval

1. Add a new action → **Ask For Approval**.
2. Target Record → *Network Task TableRecord*.
3. Configure:
    a. **Approval Reason:** "Waiting for Network Task approval".

b. **Approval Rules:** Approve / Reject.

c. **Approval Type:** Choose (e.g.,*Anyone Approves*).

4. Click **Done**.



J.If Condition – Approval StatusChanges

1. Add action → **If Condition**.
2. Condition → *Approval State is Approved*.
3. In the **Then branch**:

Update Record

a. Target Record → *Network Task TableRecord*.

b. Update fields:

i. Assigned To → *Adam Ringle*.

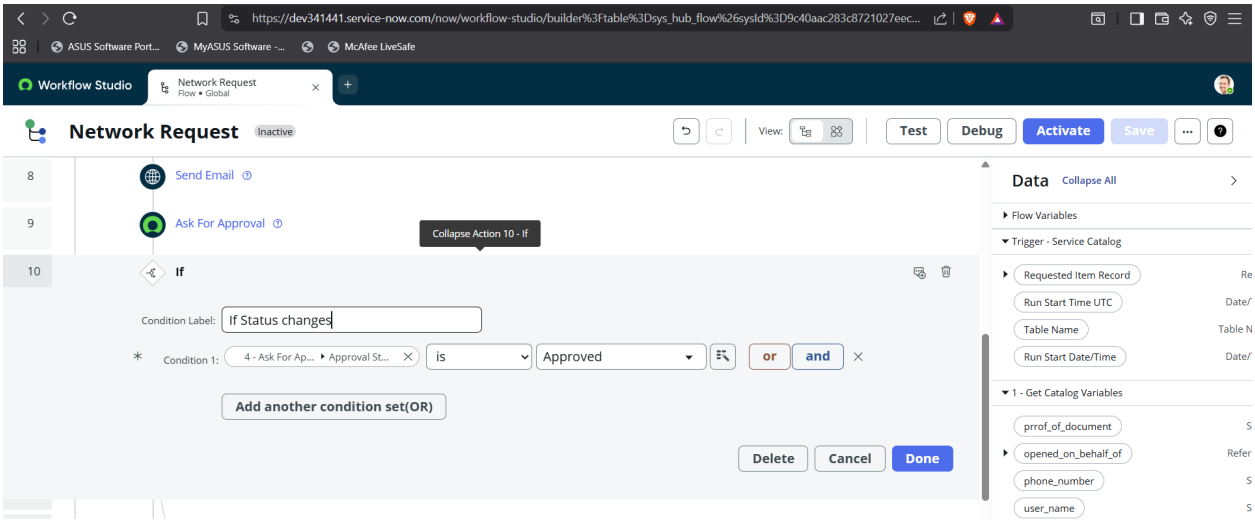
ii. Work Status → *Work in Progress*.

c. Click **Done**.

Send Email (Approved)

d. Add action → Send Email.
e. Notify requestor that the task is approved and in progress.

(same as above)



K. If Condition – Request Rejected

1. Add another If Condition for *Approval State is Rejected*.
2. In the Then

   branch: Send Email

   (Rejected)

   a. Notify requestorthat their requestwas rejected.
   b. Optionally include rejection comments.

OVERALL FLOW:


Workflow Studio
Network Request
Flow • Global
Network Request
Inactive
TRIGGER
Service Catalog
ACTIONS
Select multiple
1
Get Catalog Variables from Network Request
2
Create Network Database Table Record
3
Send Email
4
Ask For Approval
5
If If Request is Approved
6
then
Update Network Database Table Record
7
Create Network Database Table Record
8
Send Email
9
Ask For Approval
10
If If Status changes
11
then
Update Network Database Table Record
12
Send Email
13
End Flow
14
End Flow
15
If If Request is rejected
16
then
Send Email
17
End Flow
Add an Action, Flow Logic, or Subflow

Summary

This project delivers an efficient ServiceNow-based solution for handling network service requests. By using a dedicated service catalog, automated approval workflows, and real-time notifications, it streamlines the request process for both users and technicians. The system ensuresaccurate request capture, faster resolution through automation, and better visibility with reporting and SLA tracking.