

Project Development Phase

Date

Project Name

Automated Network Request Management in ServiceNow

College Name

Ideal Institute Of Technology

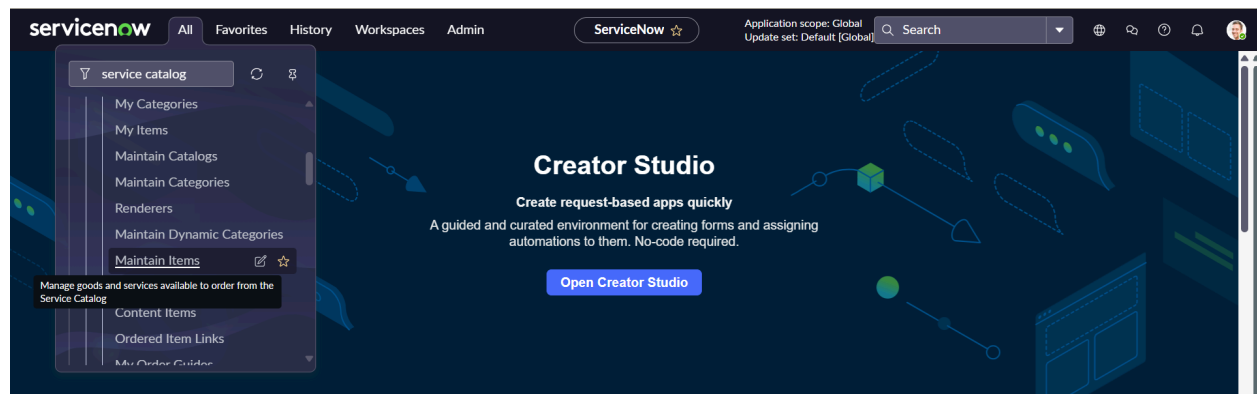
Setting up ServiceNow Instance

1. Sign up for a developer account on the ServiceNow Developer site "https://developer.servicenow.com".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.
5. You'll receive an email with the instance details once it's ready.
6. Log in to your ServiceNow instance using the provided credentials.
7. Now you will navigate to the ServiceNow.

Service Catalog Creation

1. Creation of Service Catalog

1. Navigate to Application navigator
2. Click on All >> search for Service Catalog
3. Under Service Catalog>> Maintain items



Name	Short description	Active	Roles	Catalogs	Category	Price	Type	Updated
3M Privacy Filter - Lenovo X1 Carbon	Privacy Filter - X1 Carbon	true		Service Catalog	Peripherals	\$43.19	Item	2022-11-20 20:46:33
3M Privacy Filter - MacBook Pro	Privacy Filter	true		Service Catalog	Peripherals	\$42.23	Item	2022-11-20 20:46:33
3M Privacy Filter - MacBook Pro Retina	Privacy Filter	true		Service Catalog	Peripherals	\$40.31	Item	2022-11-20 16:00:00
Access	Microsoft Access	true		Service Catalog	Software	\$139.99	Item	2022-11-20 20:46:33
Acrobat	Adobe Acrobat	true		Service Catalog	Software	\$139.99	Item	2022-12-05 20:46:33
Add network switch to datacenter cabinet	This standard change template describes ...	true		Service Catalog	Network Standard Changes	\$0.00	Item	2025-09-09 07:16:44
Add/Remove users from group	Add/Remove users from group	true		Service Catalog	Services	\$0.00	Item	2022-12-05 10:17:33
Adobe Acrobat Pro	Create, edit or convert PDF files	true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
Adobe Creative Cloud	More connected ways of creating and shar...	true		Service Catalog	Software	\$0.00	Item	2022-12-05 20:46:33
Apple iPad 3	Apple iPad 3	false		Service Catalog	Tablets	\$600.00	Item	2022-11-20 20:46:33

4. Click on New
5. Fill the details >> Name– Network Request
6. Select Catalog>> Service Catalog
7. Select Category>> Network(I category is not there create new category with name Network and Connectivity dont forgot to select catalog as service catalog)
8. Fill the Short Description as Network request Management

Save

Configure

Export

Create Favorite

Copy URL

Copy sys_id

Reload form

Name: Network Request

Catalogs: Service Catalog

Category: Network and Connectivity

Short description: Network request Management

9. Click on Save.

Variables Configuration

Open the catalog item just created.

Scroll down to the **Variables** related list and click **New** to create form fields.

1. Select Variables type as Single, Multi line text, reference, choices etc as per requirement
2. Catalog item– Network Request
3. Order–100,200,300,,,
4. Question– provide the variable label

5. Name—provide the variables name(used for scripting)
6. Tooltip— this will appear when cursor overed on the field
7. Example text – this will suggest what we need to enter on the field.
8. Mandatory, Read-Only– need to configure on demand
9. Auto populate– need to select dependent variable, apply dot walking to get selected

Variable New record

Application: Global

Type: Container Start

Catalog Item: Network Request

Order: 300

Display title: ☒

Active: ☒

Submit

Question Annotation Type Specifications Permission Availability

Specify the **Question** that explains the options available to the end user when ordering the item

* Question: Service details

* Name: service_details

Conversational label:

Tooltip:

Submit

10. value.

11. Click on Save or Submit.

Variables (11) Variable Sets (1) Catalog UI Policies (1) Catalog Client Scripts Available For Not Available For Categories (1) Catalogs (1)

Catalog Data Lookup Definitions Related Articles Related Catalog Items Assigned Topics

Order Search Actions on selected rows... New

Catalog item = Network Request

Type	Question	Name	Order	Created
Container Start	Service Details	service_details	200	2025-09-11 21:23:55
Multiple Choice	Is this a new network Connection, or Rel...	is_this_a_new_network_connection_or_relo...	300	2025-09-11 21:27:24
Single Line Text	If this is relocation, please provide ad...	if_this_is_relocation_please_provide_add...	310	2025-09-11 21:29:03
Container End		formatter	350	2025-09-11 22:00:42
Container Start	Location and Devices Type	location_and_devices_type	400	2025-09-11 21:30:01
Single Line Text	Please provide address here	please_provide_address_here	410	2025-09-11 21:31:13
Select Box	Type of devices	type_of_devices	420	2025-09-11 21:32:01
Single Line Text	Provide device details	provide_device_details	430	2025-09-11 21:33:19
Container End		formatter2	450	2025-09-11 22:01:37
Container Start	Additional information	additional_information	500	2025-09-11 21:34:14
Single Line Text	If any, Please write here	if_any_please_write_here	510	2025-09-11 21:35:00

1 to 11 of 11

Variables Types

1. Is this a New connection or Relocation? >> **Choice** >> **New/ Relocation/None**

Variable: Is this a new network Connection, or Relocation

Conversational label:

Tooltip:

Copy Update Delete

Related Links: [Run Point Scan](#), [\[SN Utils\] Versions \(1\)](#)

Question Choices

Text	Value	Order	Inactive
None	1	100	false
Relocation	3	100	false
New	2	200	false

+ Insert a new row...

2. If this is a relocation, Please provide your relocated address here>>**String**

3. Types of devices>> **Choice**>> **Laptop/Mobiles/Others**

Variable: Type of devices

Type: Select Box

Catalog Item: Network Request

Order: 420

Mandatory ☐

Read only ☐

Hidden ☐

Question: Specify the Question that explains the options available to the end user when ordering the item

* Question: Type of devices

* Name: type_of_devices

Conversational label:

Tooltip:

Copy Update Delete

Related Links: [Run Point Scan](#), [\[SN Utils\] Versions \(4\)](#)

Question Choices

Text	Value	Order	Inactive
Others	Others	100	false
Mobile	Mobile	100	false
Laptop	Laptop	200	false

4. Please provide address here>>**String**

5. Provide device details here>> **String**

6. If anything else, please specify>> **String**

Variable Set Configuration

- To enhance form usability:

- Navigate to the **Variable Sets** (optional).
- Follow the same procedure as we used for Variables Creation, for the variable set as well.
- Apply variable sets to the catalog item.

Variable set Creation

1. Under variable set click on new

Variable Set
New record

Please save record before pasting...

* Title: Requester Information

* Internal name: requester_information

Order: 100

Type: Single Row

Description:

Application: Global

Display title:

Layout: 1 Column Wide

Submit

2. Enter Title >> Requester Information
3. Click on submit.

Variables (11)	Variable Sets (1)	Catalog UI Policies (2)	Catalog Client Scripts	Available For	Not Available For	Categories (1)	Catalogs (1)	Catalog Data Lookup Definitions	Related Articles	Related Catalog Items
Assigned Topics										
Order Search										
Catalog Item = Network Request										
Variable set										
Requester Information 100										

Variables Types

1. Opened on behalf of >> Reference>> reference to user table
2. Email Id >> Single line text >> Auto populate by Opened on behalf of variable.
3. User name >>Single line text >> Auto populate by Opened on behalf of variable.
4. Phone Number >>Single line text >> Auto populate by Opened on behalf of variable.
5. Proof of Document >> Attachment

Variable Set
Requester Information

Type: Single Row

Description:

Update Delete

[SN Utils] Versions (18)

Variables (5) Catalog UI Policies Catalog Client Scripts Included In (1) Catalog Data Lookup Definitions

Order Search Actions on selected rows... New

Variable set = Requester Information

Name	Type	Question	Order
opened_on_behalf_of	Reference	Opened on behalf of	100
email_id	Single Line Text	Email Id	150
user_name	Single Line Text	User name	170
phone_number	Single Line Text	Phone Number	200
proof_of_document	Attachment	Proof of Document	900

<< < 1 to 5 of 5 > >>

Catalog UI Policy Configuration

Scenario: If user selects types of devices is **Others**, then Please specify field should populate.

Procedure:

1. Navigate to catalog items
2. Open Network Request item
3. In related list, we have Catalog UI policy
4. Click on New button to configure New UI policy

Catalog UI Policy
New record

Catalog UI policies are similar to standard UI policies. Catalog UI policies dynamically change variables that are part of a catalog item or change how variable sets are handled. Policies can also be applied when the variables are present in a Requested Item or Catalog Task form. [More Info](#)

Applies to: A Catalog Item Application: Global

* Catalog item: Network Request Active: ☒

* Short description: types of devices is others

When to Apply: Script

Catalog UI policy actions are applied only if all the following conditions are met:

1. The catalog UI policy is **Active**
2. The items in the **Conditions** field evaluate to true
3. The field specified in the catalog UI policy is present on the specified catalog item

Catalog Conditions: Add Filter Condition Add OR Clause

type_of_devices is Others

Applies on a Catalog Item view: ☒

Applies on Catalog Tasks: ☐

Applies on Requested Items: ☐

Apply the catalog UI policy actions when the form is loaded or when the user changes values on the form

On load: ☒

- 5.
6. Select Applies to as Catalog item
7. Select catalog item as Network Request

8. Provide short description, if required
9. Apply condition>> **types of devices is others**
10. Click on save, after saving the form will get UI policy actions in the related list
11. Click on New button to configure new UI Policy action, and Select the variable which we want to display on condition
12. Make Visible True as per our requirement
13. Update the UI Policy and Test the same on Catalog form.

Similarity do it for Network Connection is relocation

Variables (11)

Variable Sets (1)

Catalog UI Policies (2)

Catalog Client Scripts

Available For

Not Available For

Categories (1)

Catalogs (1)

Catalog Data Lookup Definitions

Related Articles

Related Catalog Items

Assigned Topics

≡

▼

Order

Search

⊙

🔗

—

Actions on selected rows...

New

Catalog item = Network Request

<input type="checkbox"/>	Short description	Variable set	Conditions	Reverse if false	On load	Inherit	Updated	Order ▲
	Network connection is Relocation	(empty)		true	true	false	2025-09-16 22:29:57	100
	type of devices is other	(empty)		true	true	false	2025-09-11 22:32:44	100

«

◀

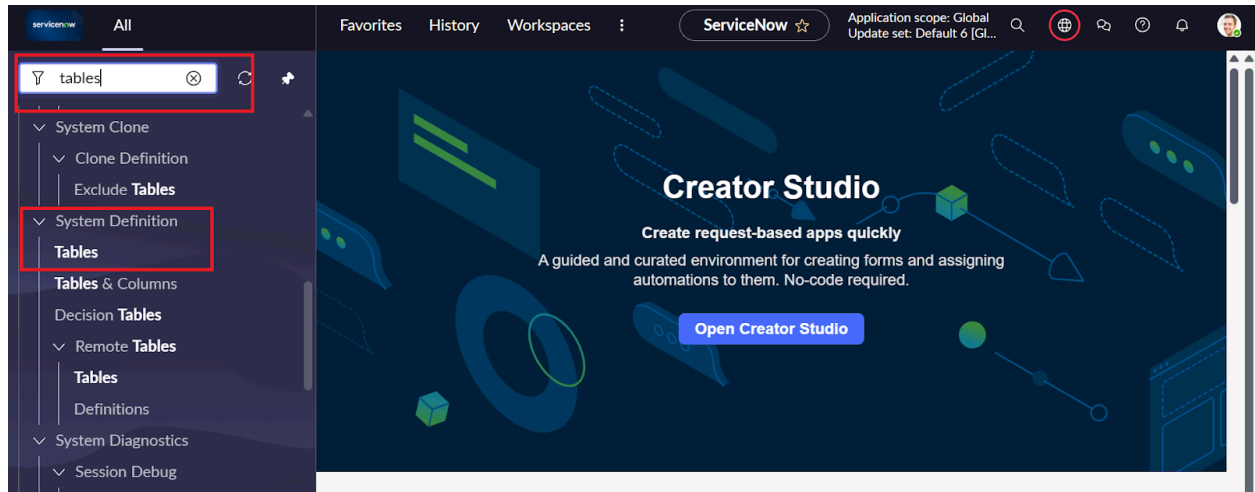
1 to 2 of 2

▶

»

Creation of Table

- **Navigate to:** System Definition > **Tables.**



- Click **New** to create a new table.

≡	🔍	🗨	Tables View: Tables	Updated ▾	Search	⚙️	📄	Actions on selected rows...	New
All > Update name is not empty									
<input type="checkbox"/>	🔍	Label	Name	Application	Extends table	Extensible	Updated ▾		
		Task Intelligence Admin Context	sn_ti_admin_context	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:36		
		Task Intelligence Admin Statistic	sn_ti_admin_statistic	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:35		
		Task Intelligence Admin Step	sn_ti_admin_step	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:35		
		Task Intelligence Admin Landing Card	sn_ti_admin_landing_card	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:35		
		Task Intelligence Admin Task Card	sn_ti_admin_task_card	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:34		
		Task Intelligence Admin Score Type	sn_ti_admin_model_score_type	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:34		
		Task Intelligence Admin Model	sn_ti_admin_model	Task Intelligence Admin Console	(empty)	false	24/04/2025 16:01:33		
		Task Intelligence Admin Feature	sn_ti_admin_feature	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:32		
		Task Intelligence Admin Template	sn_ti_admin_template	Task Intelligence Admin Console	Application File	false	24/04/2025 16:01:32		

- Fill in **Table Information**:

- **Name:** Name of the table -----
- **Label:** Backend name of the table-----
- **Auto-generate schema:** Leave it checked if you'd like ServiceNow to auto-generate schema fields.

- Click **Submit** to create the table.

Table
Network DataBase Table View: Tables

* Label

* Name

Application

Remote Table ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

	Column label	Column name	Type	Reference	Max length	Default value	Display
×	Request Number	u_request_number	String	(empty)	40		false
×	Assignment Group	u_assignment_group	Reference	Group	32		false
	Created	sys_created_on	Date/Time	(empty)	40		false
	Created by	sys_created_by	String	(empty)	40		false
×	Customer Document	u_customer_document	String	(empty)	40		false
	Sys ID	sys_id	Sys ID (GUID)	(empty)	32		false

Creation of fields

In ServiceNow, fields are created at the **table** level. To create a field, you first need to identify the table where the field will reside.

1. In the **Application Navigator** (left-side panel), type **Tables** in the search bar.
2. Under **System Definition**, click **Tables**. This will take you to a list of all tables in the system.

Select the Table to Add the Field

- From the list of tables, search for and select the **table** you want to add a field to. For example, if you want to add a field to the **Network database** table:

1. Type "**Network database**" in the search box or scroll through the list.
2. Click on the **Network database** table name. You'll now see a list of all fields (columns) associated with the **Network database** table.

Open the Table's Columns

- After selecting the table, you'll be brought to a view that lists all the columns (fields) that currently exist on that table.

- To create a new field (column), go to the **Columns** tab (this is where all fields for the selected table are listed).

Create a New Field

1. In the **Columns** tab, click the **New** button located at the top-right corner of the page to create a new field.
2. You'll now be prompted with a form where you need to define the new field. The following fields need to be filled out:

Table Columns

for text

Search

Define Field Properties

Fill in the following details for your new field:

1. Column Label (Field Label)

- **Description:** This is the name that will be displayed on the forms, lists, and records.
- **Example:** Customer Name

2. Column Name

- **Description:** This is the internal name of the field and is auto-generated based on the column label. It should be unique for each field. Do not manually edit this unless necessary.
- **Example:** `customer_name`
- **Description:** The type of field determines the kind of data it will store. You need to choose the correct type based on the data you want to store (e.g., text, number, date, etc.). Some of the most common types include:
 - o **String:** For short text values (e.g., name, description).
 - o **Integer:** For numbers without decimals (e.g., age, number of items).
 - o **Choice:** A dropdown list of options.
 - o **Reference:** A field that links to another table (e.g., linking to a User table).
 - o **Boolean:** A true/false checkbox.
 - o **Date:** For a date picker field.
 - o **Date/Time:** For both date and time.
- **Example:** `String`, `Choice`, `Reference`

3. Max Length (Optional)

- **Description:** If you are creating a string-type field, you can specify the maximum length of the text allowed.
- **Example:** `255` characters (default length for a string field).

4. Mandatory

- **Description:** Check this box if the field should be required when creating or updating records.
- **Example:** For a "Customer Name" field, this might be required.

5. Default Value (Optional)

- **Description:** You can set a default value for the field if desired. This value will appear automatically when creating a new record.
- **Example:** Set the default value to "New Customer" for a "Customer Name" field.

6. Read-Only

- **Description:** Check this box if the field should be read-only (users cannot modify its value). This is commonly used for calculated or system-generated fields.
- **Example:** "Created Date" or "Record Number".

7: Save the Field

- Once you've configured all the necessary field properties, click **Submit** or **Save** to create the field.
- After saving, ServiceNow will create the new field and add it to the list of columns for the selected table.

Request Approvals Creation(Related List)

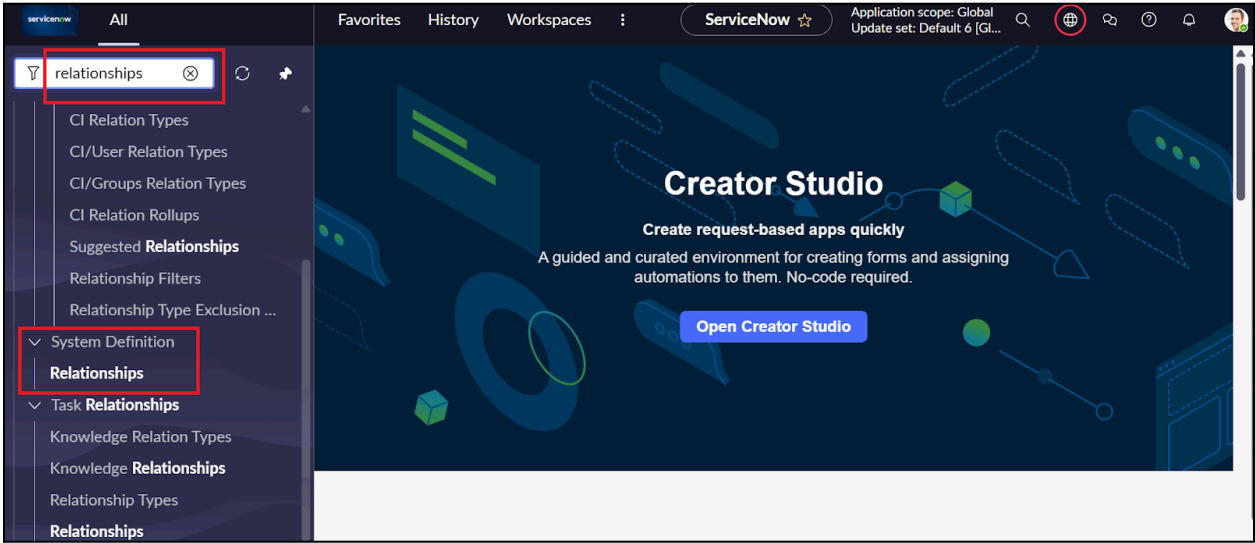
Creation of Related List

Navigate to **System Definition > Relationships**.

- Click **New** to create a new relationship.
- Fill in the following details:
 - o **Name:** Approval Request
 - o **Applies to Table :** Network Database table.
 - o **Queries from Table :** Sysapprovals table.

o **Active:** Make sure it's set to **True**.

· Save the relationship.



Relationships Updated								
Search								
Actions on selected rows... New								
All	Name	Advanced	Apply to	Applies to table	Queries from table	Insert callback	Query from	Query w
<input type="checkbox"/>	Inactive MIF Trust Profile Items	false		Application Trust Profiles [sn_mif_application_trust_profile]	Trust Profile Item [sn_mif_trust_profile_item]			(function refineQu parent) {.
<input type="checkbox"/>	Active MIF Trust Profile Items	false		Application Trust Profiles [sn_mif_application_trust_profile]	Trust Profile Item [sn_mif_trust_profile_item]			(function refineQu parent) {.
<input type="checkbox"/>	Translated Messages	false		Process Definition [sys_pd_process_definition]	Message [sys_ui_message]			(function refineQu parent) {.
<input type="checkbox"/>	Descriptive elements for Input	false		Input [sys_sg_input]	Descriptive element [sys_sg_descriptive_element]			(function refineQu parent) {.
<input type="checkbox"/>	Descriptive elements for Section	false		Input Form Section [sys_sg_parameter_section]	Descriptive element [sys_sg_descriptive_element]			(function refineQu parent) {.
<input type="checkbox"/>	Access Controls	false		Script Include [sys_script_include]	Access Control [sys_security_acl]			(function refineQu parent) {.

Relationship Request Approvals

Name

Advanced ☐

Application Global

Applies to table

Queries from table

Script refines the query in current that will populate the related list. For more information about it, its parameters and control variables, see [the documentation](#). See also the article about the [extended form of the script](#).

Query with Turn on ECMAScript 2021 (ES12) mode

```

1 (function refineQuery(current, parent) {
2
3     // Add your code here, such as current.addQuery(field, value);
4     current.addQuery('source_table', parent.getTable());
5     current.addQuery('document_id', parent.sys_id);
6     // current.addQuery('state', '!=', 'not_required');
7
8 })(current, parent);

```

Adding Related List to the Table

You can create a **Related List** on a form to display the related records. This helps in easily viewing the relationships between records.

- Navigate to **Form Designer** for the table where you want to show related records.
- Add a **Related List** widget to the form.
- Select the **Related List** you want to show

Network Database Table

Save
Insert
Insert and Stay
Analyze Access
Configure >
Export >
View >
Create Favorite
Copy URL
Copy sys_id
Show XML
History >
Reload form

Form Builder
Form Design
Form Layout
Related Lists
All
Table
Security Rules
Business Rules
Client Scripts
UI Policies
Data Policies
UI Actions
Notifications
Dictionary

Number

Number

Assignment Group

Customer Document

Work Status

Requested For

key

No activity

Update Delete

Configuring related lists on Network DataBase Table form

Available

- Attachments
- Audit History
- Audit Records

Selected

- Request Approvals

View name: Default view

Cancel Save

Related Links

Network Database Table
NETDB0001001

Request Number:

Database Number:

Device Details:

Date of Enquiry:

Customer Address:

Assigned to:

Assignment Group:

Customer Document:

Work Status:

Requested For:

Activities: 0 No activity

Update Delete

Approval Request State Search

Approvals

State	Approver	Comments	Approval for	Created
Approved	Abraham Lincoln		(empty)	2025-09-12 09:15:57

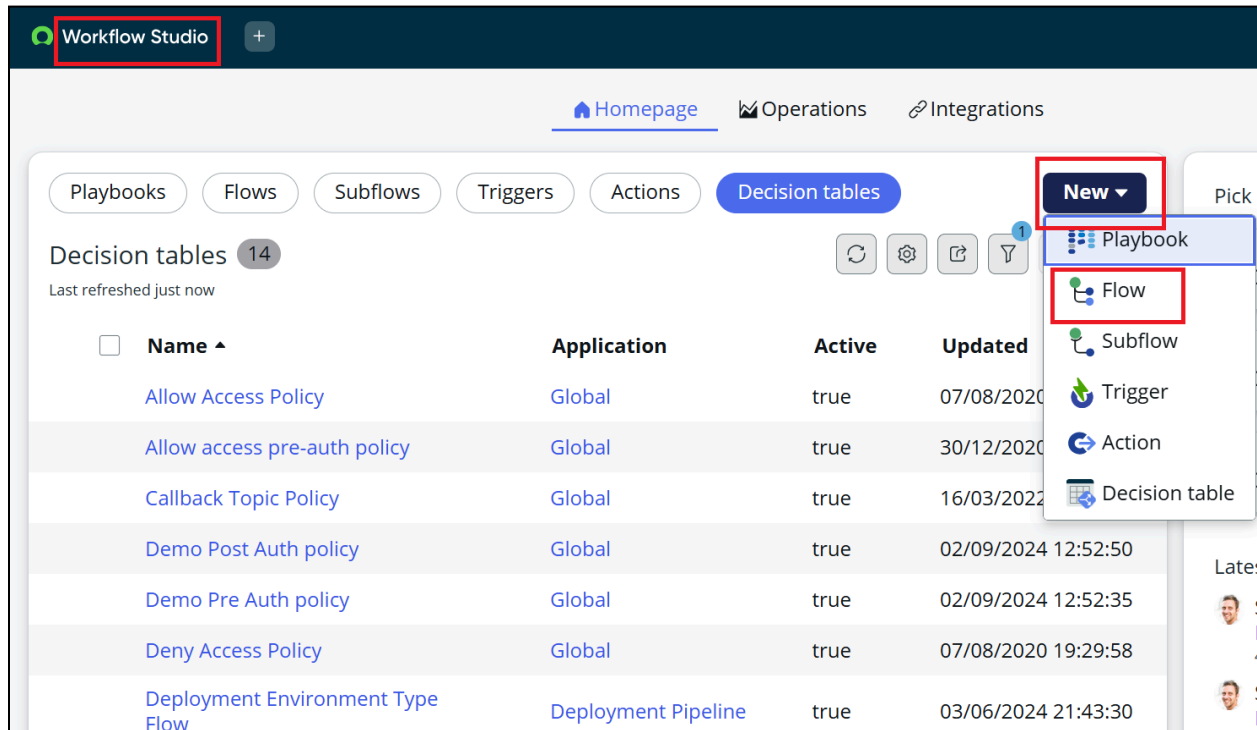
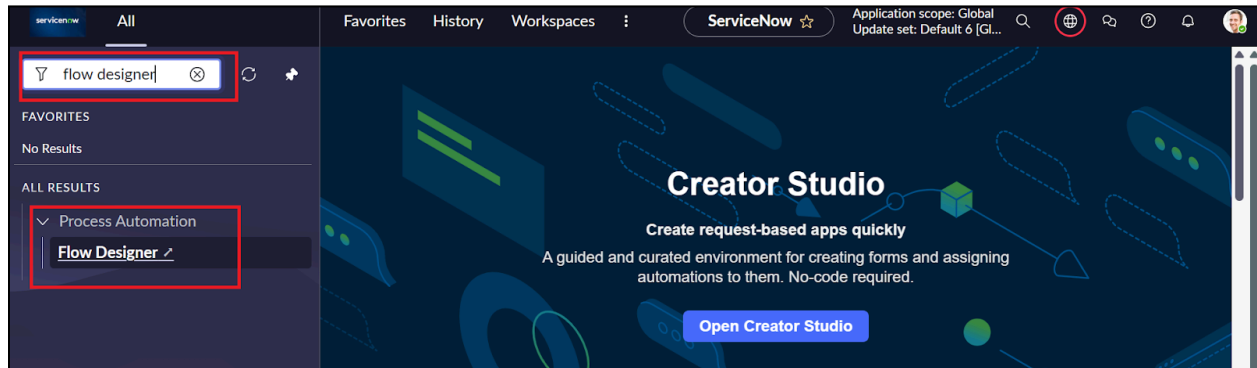
Creation & Implementation of flows, Actions in

Flow Designer

Creation of Flow

1. Navigate to Flow designer home page

2. Click on New to create a new flow
3. Provide flow name as **Network Request**
4. Provide description of flow
5. Click on Build flow.



Let's get the details for your flow

Flow name * ⓘ
Network Request

Application * ⓘ
Global

Description ⓘ
This flow is using for the automatic approvals and actions using flow designer action

> Show additional properties

Cancel

Build flow

Configuring Trigger

1. Click on (+) Icon to Configure the Trigger
2. Select Trigger as Application >> Service catalog
3. Click on **Done**.

Network Request

inactive

↶ ↷ View: [Grid] [List]

Test Debug Activate Save ... ?

TRIGGER

+ Add a trigger

ACTIONS Select multiple

+ Add an Action, Flow Logic, or Subflow

ERROR HANDLER ☐

If an error occurs in your flow, the actions you add here will run.

Data

▶ Flow Variables

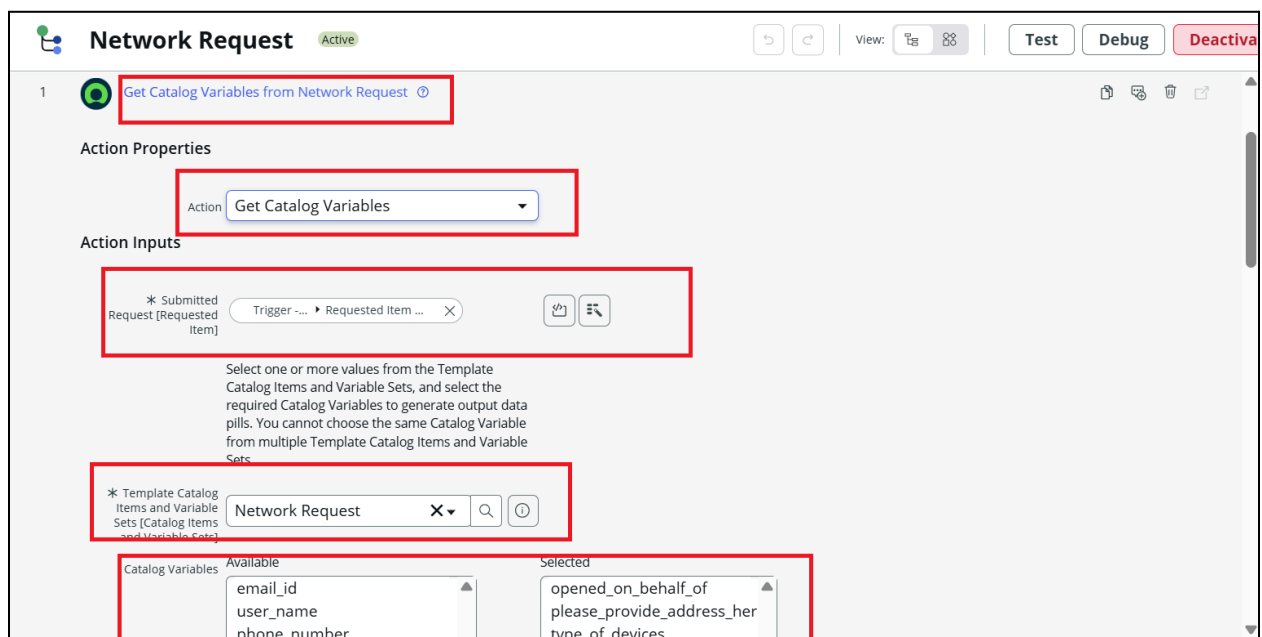
▶ Trigger

Configuring Actions

Click on Actions button to configure new action

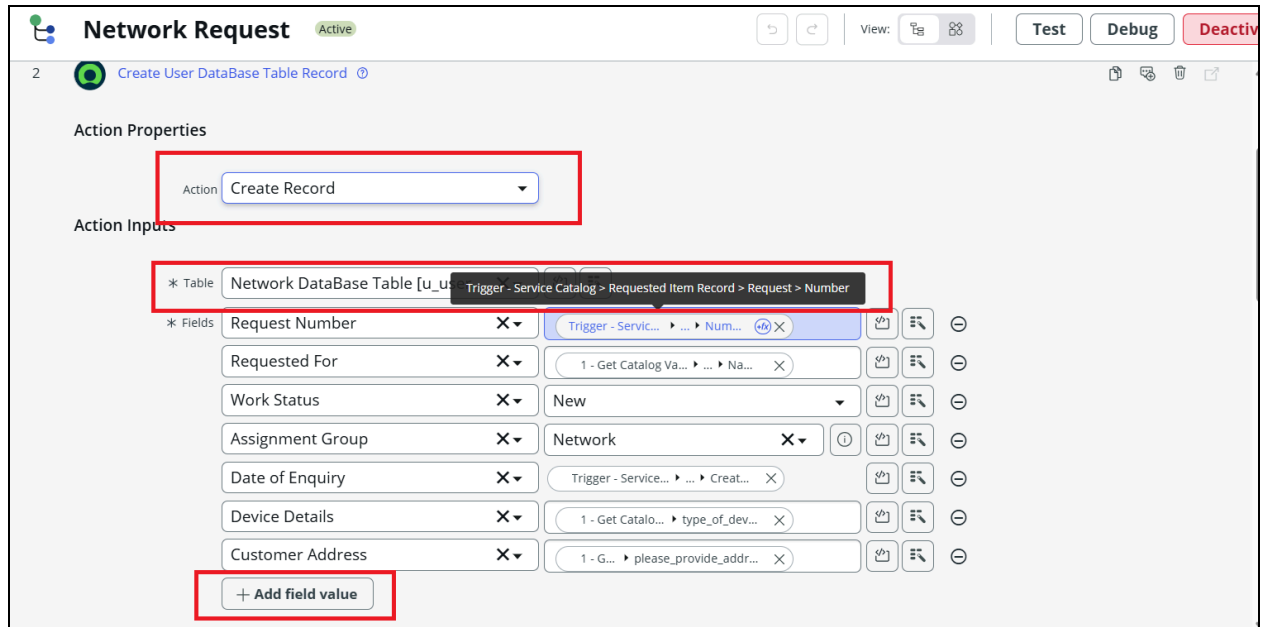
1. Get Catalog Variables

- Click on Action, search for Get Catalog Variables
- Select Get Catalog Variables
- Action Inputs>> Trigger>>service catalog>>Requested Item
- Template catalog items >> Select table >> Network Request
- Select the Required Variables and Move to the selected area.
- Click on done



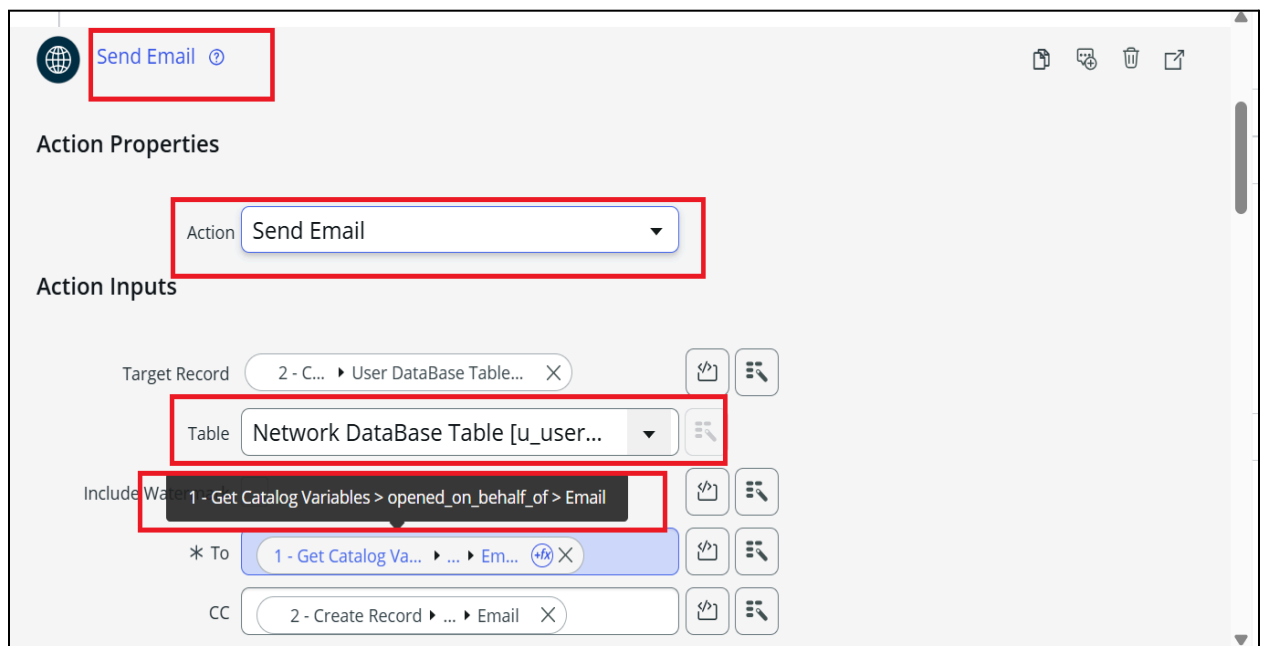
2. Create Record

- Select action as Create Record
- Select table as Network Database
- Click on Add fields button to configure the fields
- Configure the Required fields as shown in the below picture
- Click on done



3. Send Email

- Select action as Send Email
- Select target record >> Create record>> network database table
- Table will be selected automatically
- Configure To, CC, BCC as per our requirements(select static/dynamic)
- Provide Subject & Body as shown in the below picture
- Click on done



Network Request Active View: [Icons] Test Debug Deactivate

* Subject: Request has been Created

Body

OpenSans,So... 10pt

Hello 2 - Create ... > ... > Requested ...

2 - Create Record > User DataBase Table Record > Request Number

We have been received your request with request number: 2 - Creat... > ... > Request Nu... (+fx)

Sorry for the Inconvenience and Your request will resolved with in 2 Business working days.

Thanks for contacting us.

Network Team.

4. Ask for approvals

- Select action as Ask for Approval
- Select target record >> Create record>> network database table
- Provide Approval Reason>> Waiting for approval
- Configure approval rules>> Approve, reject, approve/reject
- Select approvals as Anyone approves, everyone approves etc.
- We can select approvals like static/dynamic as shown below
- Click on done

Network Request Active View: [Icons] Test Debug Deactivate

Action: Ask For Approval

Action Inputs

* Record: 2 - C... > User DataBase Table...

Table: Network DataBase Table [u_user...]

Approval Reason: Waiting for approval

Approval Field: Select a field

Journal Field: Select a field

* Rules

Approve When: Anyone approves

2 - Create Rec... > ... > Manag...

Add another OR

5. Flow Logic

- Select action as flow logic and Select If condition
- Apply condition >> Ask for approvals state is **Approved/Rejected** as per requirement
- Click on done

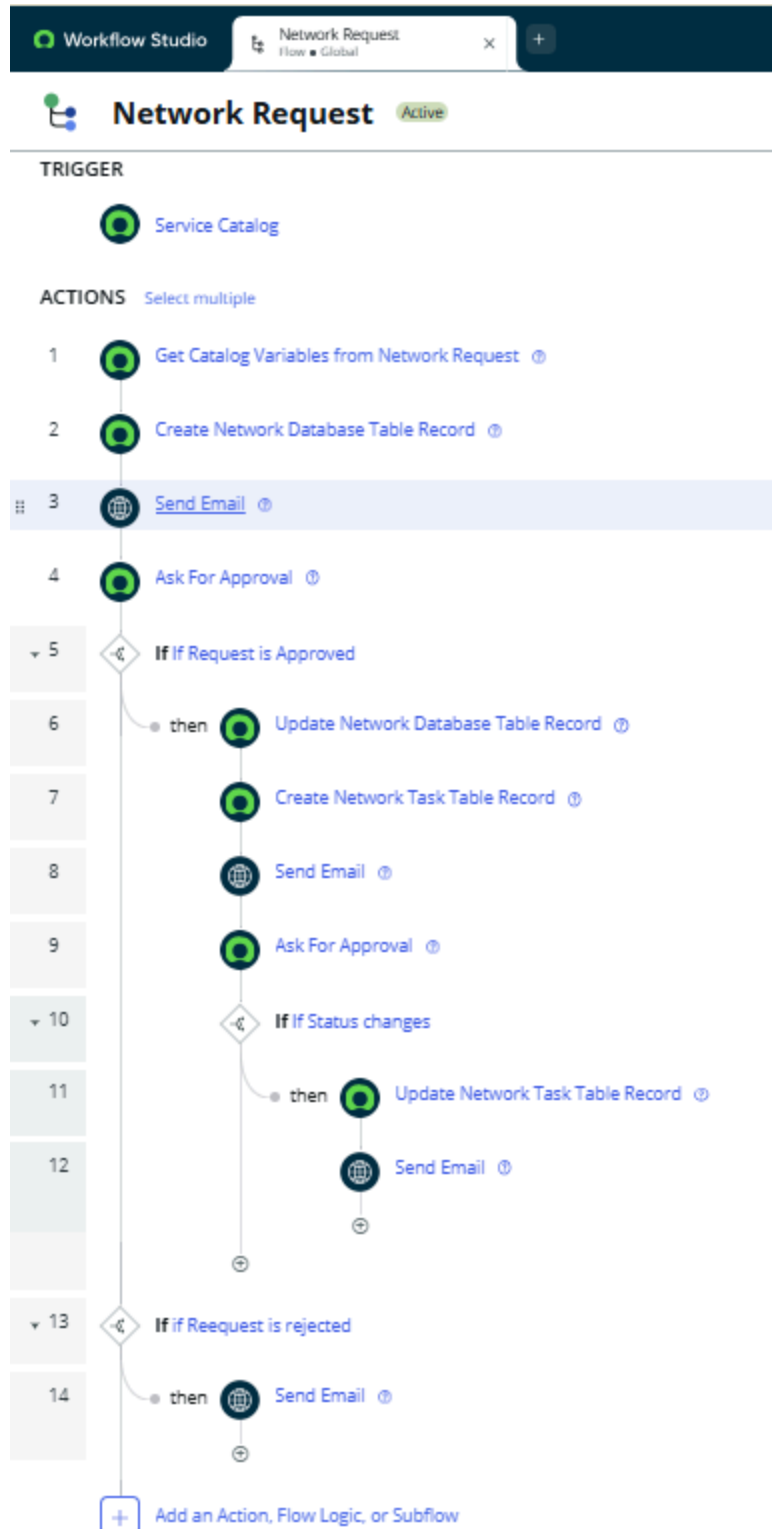
The screenshot shows the configuration for an 'If' condition. The 'Condition Label' is 'If Request is Approved'. Below it, 'Condition 1' is set to '4 - Ask For Ap... Approval St...' with a value of 'Approved'. The interface includes buttons for 'Add another condition set(OR)', 'Delete', 'Cancel', and 'Done'.

6. Update Record

- Select action as Update Record
- Select record as >> create record>> network database
- Table will be selected automatically
- Configure the fields as per requirement, as shown in below
- Click on done

The screenshot shows the configuration for the 'Update Record' action. The 'Action' is 'Update Record'. Under 'Action Inputs', the 'Record' is '2 - C... User DataBase Table...', the 'Table' is 'Network DataBase Table [u_user...', and the 'Fields' are 'Assigned to' (value: Adam Ringle) and 'Work Status' (value: Work In Progress). There is an 'Add field value' button. At the bottom are 'Delete', 'Cancel', and 'Done' buttons.

Flow Chart



Note: To create this flow or complete the project we also created

1. Another table >> Network task table
2. One relationship for network task table.

And then complete the overall flow.