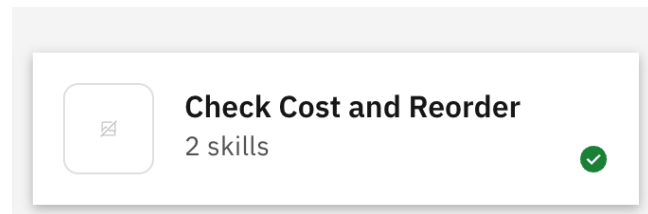
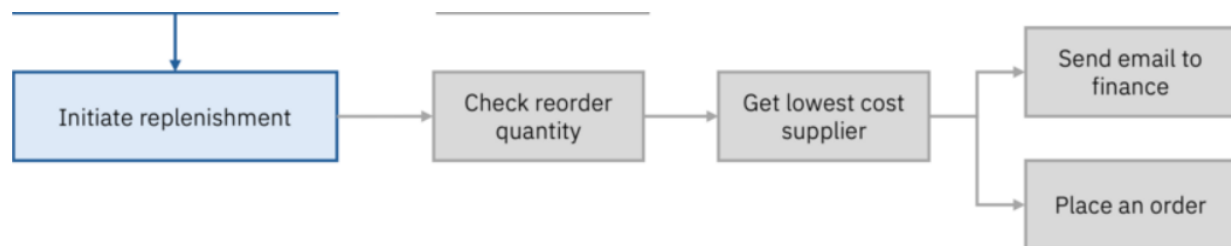


Lab 6: Initiate Replenishment Flow

In this lab, you will build an Initiate Replenishment skill flow, linking a few skills from previous labs. Check Reorder Quantity and Get Lowest Cost Supplier Skills have been pre-created for you. These skills are nested in the “Check Cost and Reorder” app.

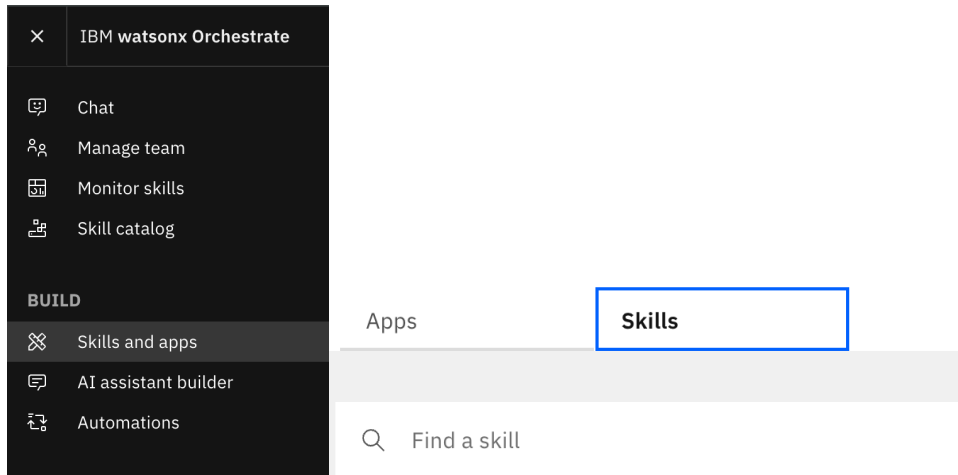


Using this, you will be able to run the procurement order scenario step by step.

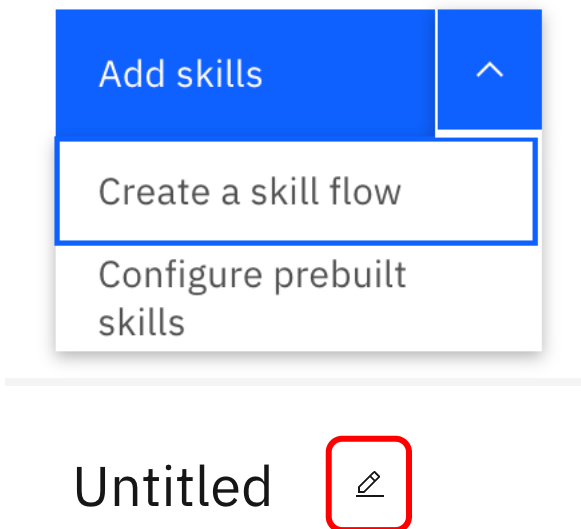


1. Add Skills to Skill Flow

1.1 Click on “Skills and Apps” from the side menu and click on Skill.



1.2 Create a Skill Flow and rename the skill flow (by clicking on the pen icon) to “[Your Name] Initiate Replenishment”, click on save.



Edit Skill flow details



Preview

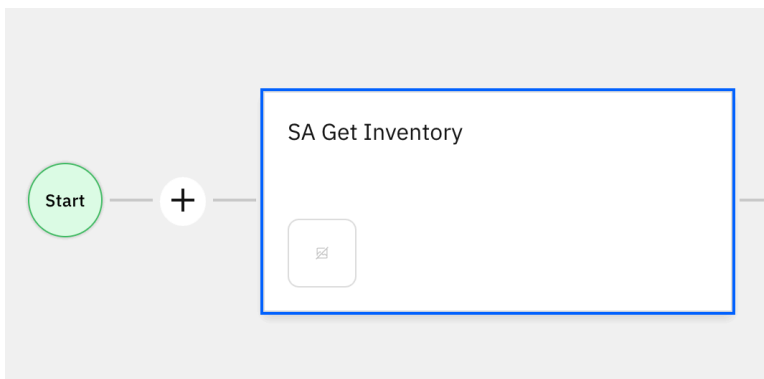
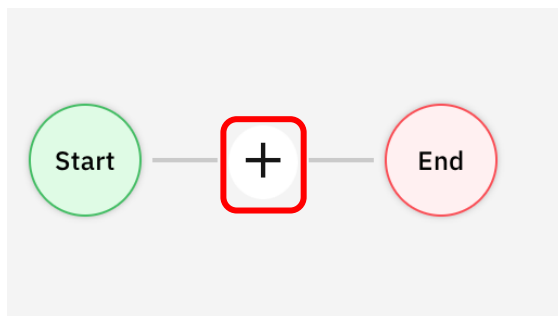
SY Initiate Replenishment



Name *

SY Initiate Replenishment

1.3 Add the [Your Name] Get Inventory Skills to skill flow.



1.3.1 Click on the [Your Name] Get Inventory Skills, and change the default query to “What is the current inventory level for Xtralife?”



SA Inventory text to sql API

☐ Repeat this skill

Input

Output

[Clear all mappings](#)

[Generate mapping suggestions](#)

☐ Hide this form from the user

query

What is the current inventory level for Xtralife ?

1.4 Add Forecast_Quantity_Auto_AI skill to the skillflow



Forecast_Quantity_Auto_AI

1 skill



Forecast_Quantity_Auto_AI

Forecast_Quantity_Auto_AI

Execute Forecast_Quantity_Auto_AI



[Add Skill](#) +

- 1.4.1 Click on Forecast_Quantity_Auto_AI skill and type in the default productName to "Xtralife"



Forecast_Quantity_Auto_AI

Execute Forecast_Quantity_Auto_AI

☐ Repeat this skill

Input

Output

[Clear all mappings](#)

[General](#)

☐ Hide this form from the user

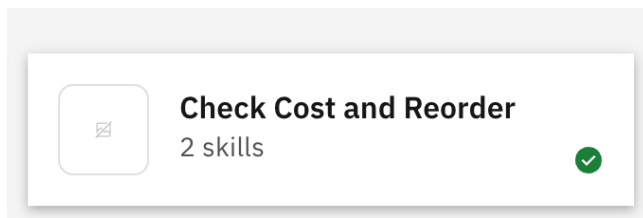
orderDate

productName

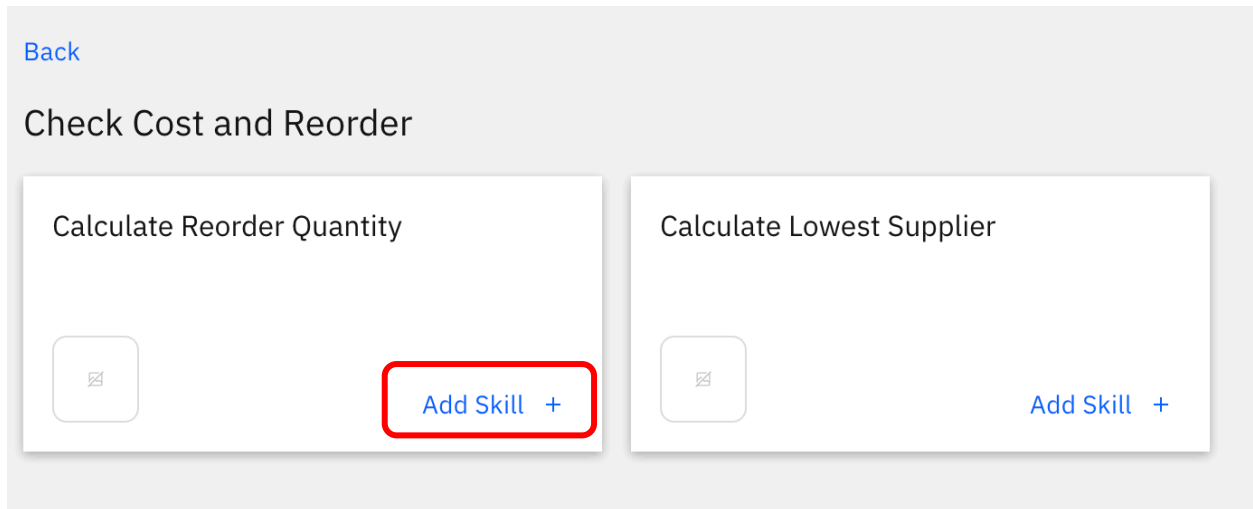
Define Transformations

Operator

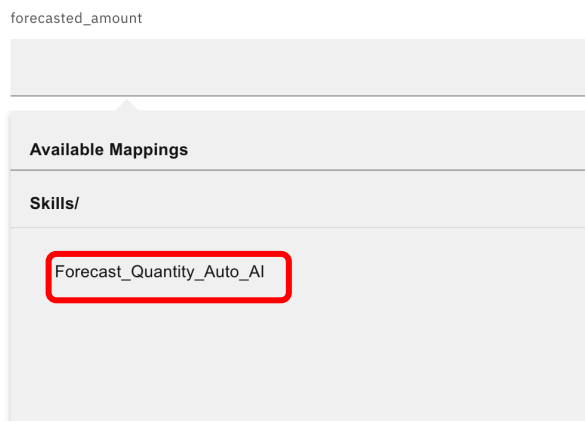
1.5 Look for Check Cost and Reorder App.



1.5.1 Add Calculate Reorder Quantity Skill



- 1.5.2 Click on the Calculate Reorder Quantity Skill and click on forecasted_amount box. Select 'Forecast_Quantity_Auto_AI' from the dropdown and select 'ForecastedQuantity' from the next dropdown.



Available Mappings	
Skills/Forecast_Quantity_Auto_AI-Forecast_Quantity_Auto_AI	
Skill Output	{#}
ForecastedQuantity	123

1.5.3 Click on the “current_inventory” box.

current_inventory

Specify default value



1.5.4 From the dropdown, select [Your Name] Get Inventory -> Quantity

current_inventory

Available Mappings	
Skills/	
SA Get Inventory	

current_inventory


Available Mappings	
Skills/SA Inventory text to sql API-SA Get Inventory	
Skill Output	{#}
result	{#}
items	{#}
Quantity	abc

1.5.5 Add Calculate Lowest Cost Supplier (also from Check Cost and Reorder App)

[Back](#)


Check Cost and Reorder

Calculate Reorder Quantity



Add Skill +

Calculate Lowest Supplier



Add Skill +

1.5.6 Click on the Calculate Lowest Supplier and edit the product_name field.

product_name

Specify default value



1.5.7 Type in Xtralife into the product_name field.

product_name

Xtralife

1.6 As we want to only choose 1 supplier to reorder from, we will need to capture the lowest cost supplier details in a form. Add Input Form (from Custom Forms App)

Custom Forms

Input form

Display a form to input data



Add Skill +

1.6.1 Select “Hide this form from user”. (Optional to give a name)

Form title

Optional title for the form



Hide this form from the user

Add input field +

1.6.2 Click on “Add input field”

Form title

Optional title for the form



Hide this form from the user

Add input field +

1.6.3 Select “Single Line Text” for the input type, and type in “Supplier Name” in Configuration tab. Click on Apply.

Add input field

Input type

Configuration

Skill flow saved successfully

☒ Single line text

☐ Paragraph text

☐ Date

☐ Decimal number

☐ Number

☐ Confirmation

Add input field

Input type

Configuration

Display label

Supplier Name

1.6.4 Repeat steps 1.1.12 and 1.1.13 for Supplier ID.

Add input field

Input type

Configuration

Display label

Supplier ID

1.6.5 Lastly, create a field with “Number” as input type and “Cost” as Display label.

Add input field

☒ Input type

☐ Configuration

Skill flow saved successfully

☐ Single line text

☐ Paragraph text

☐ Date

☐ Decimal number

☒ Number

☐ Confirmation

Add input field

×

☒ Input type

☐ Configuration

Display text for number

Cost

Your final form should look something like this.

Form title

Optional title for the form

☒ Hide this form from the user

Supplier Name

Supplier ID

Cost

1.6.6 Click on the Supplier Name field and select “Calculate Lowest Supplier”.

Available Mappings

Skills/

SA Get Inventory

Calculate Reorder Quantity

Calculate Lowest Supplier

1.6.7 Select SUPPLIER_NAME.

Available Mappings

Skills/Check Cost and Reorder-Calculate Lowest Supplier

SUPPLIER_ID abc

lowest_cost_suppliers {#}

items {#}

SUPPLIER_NAME abc

1.6.8 Repeat step 1.1.16 for Supplier ID field. Select Supplier ID from the drop down.

Available Mappings

Skills/Check Cost and Reorder-Calculate Lowest Supplier

lowest_cost_suppliers {#}

items {#}

SUPPLIER_ID abc

1.6.9 Repeat step 1.1.16 for Cost field. Select COST_PER_UNIT from the drop down.

Available Mappings

Skills/Check Cost and Reorder-Calculate Lowest Supplier

Skill Output

{#}

lowest_cost_suppliers

{#}

items

{#}

COST_PER_UNIT


abc

1.7 Add '[YourName]_ReorderFlow' skill from [YourName]_ProcurementAutomations app.

[Back](#)

SY_ProcurementAutomations

SY_ReorderFlow



Add Skill +

1.7.1 Click on the OrderQty field and select Calculate Reorder Quantity from the dropdown. Select reorder_quantity from next dropdown.

OrderQty

Available Mappings

Skills/

SP Get Inventory

Forecast_Quantity

Calculate Reorder Quantity

Calculate Lowest Supplier

Available Mappings

Skills/Check Cost and Reorder-Calculate Reorder Quantity

Skill Output {#}

reorder_quantity 123

1.7.2 Click on CostPerUnit box. Select “Input Form” field from the dropdown. Select COST from the next dropdown.

CostPerUnit

Cost x

Available Mappings

Skills/

Forecast_Quantity_Auto_AI

Calculate Reorder Quantity

Calculate Lowest Supplier

Input form

Available Mappings

Skills/Custom forms-Input form

Skill Output {#}

Cost 123

1.7.3 Type in ‘Xtralife’ into the ProductName box.

OrderQtyStr

ProductName



Define Transformations

Operator

- 1.7.4 Click on SupplierName box and select “Input Form” from the dropdown and then select SUPPLIER NAME from the next drop down

SupplierName

Supplier Name ×

Available Mappings

Skills/Custom forms-Input form

Skill Output {#}

Supplier Name abc

Supplier ID abc

- 1.8 We will consolidate all the replenishment details in another input form. Add Input Form (from Custom Forms App)

Custom Forms

Input form

Display a form to input data



Add Skill +

Output form

Display a form to output data



Add Skill +

1.8.1 Name the form as “Your order details”.



Custom forms

Display a form to input data

Clear all mappings 

Generate mapping suggestions

Form title

Your order details

1.8.2 Click on “Add input field” and create the following fields:

Input Type	Display Label
Single Line Text	Order Item
Number	Order Quantity
Single Line Text	Supplier Name
Single Line Text	Supplier ID
Number	Cost Per Unit
Paragraph Text	Email Content

1.8.3 Click on the “Order Item” box and edit the default value to Xtralife.

Order Item

Xtralife

Define Transformations


Operator

Select



1.8.4 Click on “Order Quantity” box and select “Calculate Reorder Quantity” from the drop down. Select reorder_quantity on the next drop down.

Order Quantity

reorder_quantity × 

Available Mappings

Skills/

SA Get Inventory

Calculate Reorder Quantity

Calculate Lowest Supplier

Input form

Available Mappings

Skills/Check Cost and Reorder-Calculate Reorder Quantity

Skill Output {#}

reorder_quantity 123

1.8.5 Click on “Supplier Name” box and select “Input Form” from the drop down. Select “Supplier Name” on the next drop down.

Supplier Name

Supplier Name ×

Available Mappings

Skills/

SA Get Inventory

Calculate Reorder Quantity

Calculate Lowest Supplier

Input form

Available Mappings

Skills/Custom forms-Input form

Skill Output {#}

— Supplier Name abc

— Supplier ID abc

1.8.6 Repeat step 1.1.26 for the “Supplier ID” box, selecting “Supplier ID” from the Available Mappings Menu

Supplier ID

Supplier ID ×

Available Mappings

Skills/

SA Get Inventory

Calculate Reorder Quantity

Calculate Lowest Supplier

Input form

Available Mappings

Skills/Custom forms-Input form

Skill Output {#}

— Supplier Name abc

— Supplier ID abc

1.8.7 Click on “Cost Per Unit” box and select “Input Form” from the drop down. Select “Cost” on the next drop down.

Cost Per Unit

Cost ×

Available Mappings

Skills/

SA Get Inventory

Calculate Reorder Quantity

Calculate Lowest Supplier

Input form

Available Mappings

Skills/Custom forms-Input form

Skill Output {#}

— Cost 123

1.8.8 Click on Email Content box and select “[YourName]_ReorderFlow” from the dropdown. Select EmailOutput from the next dropdown.

Email Content

Available Mappings

Skills/

SY_ReorderFlow

Available Mappings

Skills/reorder_flow-dynamic_email

Skill Output {#}

— output {#}

— EmailOutput abc

— output {#}



Custom forms

Display a form to input data

[Clear all mappings](#)

[Generate mapping suggestions](#)

Form title

Your order details

☐ Hide this form from the user

Order Item

Xtralife

Define Transformations

Operator

Select

Order Quantity

reorder_quantity ✕

Supplier Name

Supplier Name ✕

Define Transformations

Operator

Select

Supplier ID

Supplier ID ✕

Define Transformations

Operator

Select

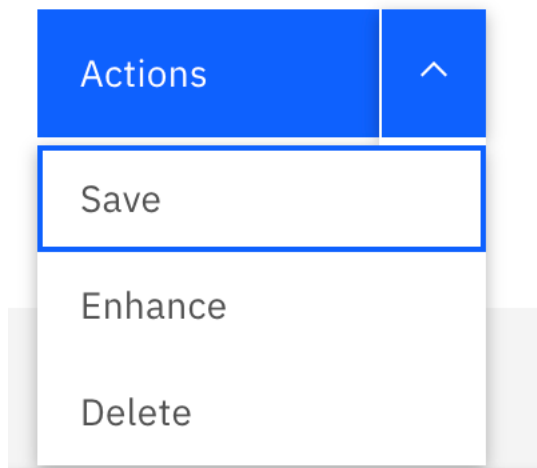
Cost Per Unit

Cost ✕

Email Content

output.properties.EmailOutput ✕

1.9 Lastly, click on the arrow on “Actions” and “Save”.



2. Publish the Skill

2.1 Select Publish

3. Add Initiate Replenishment Skill Flow

3.1 Go to Chat and Select “Add skills from catalog”.

3.2 Look for “[Your Name] Initiate Replenishment” Skill in Skill Flows app.


4. Use Initiate Replenishment Skill Flow

4.1 Select “[Your Name] Initiate Replenishment” skill flow from the menu.

4.2 The first skill in the skill flow will be automatically triggered. Click Apply.

Initiate Replenishment

You just need to complete this form first.

 Initiate Replenishment

Query *

What is the current inventory level for Xtralife ?

4.3 Once the result is out, select the result and click Apply.

InventoryRecords



Product Name	Product ID	Quantity
<input type="radio"/> Xtralife	FUR-FU-10002759	1000
Items per page: 5 ▾	1 – 1 of 1 items	1 ▾ of 1

This will automatically trigger the Reorder Quantity skill.

4.4 Once the result is out, Select a Month from the drop down and click Apply.

You just need to complete this form first.



SY Initiate Replenishment

Product Name *

Xtralife

Month *

May

4.5 The output shows the forecasted amount and current inventory as below. click Apply to proceed. This will return the reorder_quantity.

You just need to complete this form first.



SY Initiate Replenishment

Forecasted Amount *

1266

Current Inventory *

1000

Successful Response



SY Initiate Replenishment

reorder_quantity

266

4.6 You will immediately see the “Get Lowest Supplier skill”, with the Product Name filled.

Click Apply.

You just need to complete this form first.



Initiate Replenishment

Product Name *

Xtralife

Cancel

Apply

4.7 Once the result is returned, you are free to choose any supplier you want and Click

Apply.

lowest_cost_suppliers



SUPPLIER ID	SUPPLIER NAME	COST PER UNIT
<input type="radio"/> SUP-1002	Excelentia Supplies	61.5
<input type="radio"/> SUP-1000	AXV Suppliers	76.9
<input type="radio"/> SUP-1001	CGV Suupliers	92.3

Items per page: 5 ▾

1 – 3 of 3 items


1 ▾ of 1



Cancel

Apply

4.8 The output will be shown as such.

 SY Initiate Replenishment

OrderQty

266

- | +

CostPerUnit

61.5

- | +

OrderQtyStr

CostPerUnitStr


ProductName

Xtralife

SupplierName

Excelentia Supplies

4.9 Refer to the displayed OrderQty and CostPerUnit and Type in the OrderQty in OrderQtyStr and CostPerunit in CostPerUnitStr input boxes.

 SY Initiate Replenishment

OrderQty

266

- | +

CostPerUnit

61.5

- | +

OrderQtyStr

266

CostPerUnitStr

61.5

4.10 Type any reason in the 'Reason' input box such as "festivities around corner" and click on Apply.

SupplierName

Excelentia Supplies

Reason

Cancel

Apply

4.11 The final output is shown as such:

Your order details

Order Item

Xtralife

Order Quantity

338

- | +

Supplier Name

Excelentia Supplies

Supplier ID

SUP-1002

Cost Per Unit

61.5

- | +

Email Content

Dear Mr Bell,

I hope this email finds you well. I am writing to seek your permission to purchase the product Xtralife

Email Content

from Excetentia Supplies.

As you may be aware, the festive season is just around the corner and we anticipate a surge in demand for our products. In order to meet this demand and ensure that we have sufficient stock, I would like to request permission to purchase 338 units of Xtralife at a cost of \$61.50 per unit.

I believe that this purchase will be beneficial for our company as it will allow us to meet the increased demand during the festive season and maintain our reputation as a reliable supplier.

I would be grateful if you could review this request and provide your approval at your earliest convenience.

Thank you for your time and consideration.

Best regards,

[Your Name]

Cancel

Apply

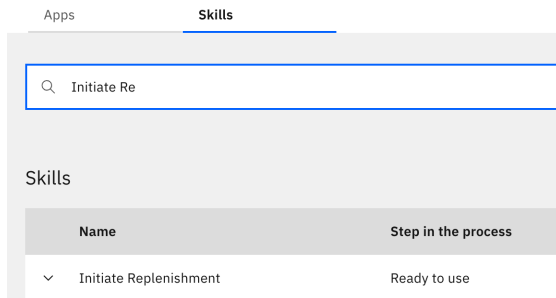
Optional Practices:

The forms currently are editable. To make the output form (or any forms) in a read-only format, please follow the following steps.

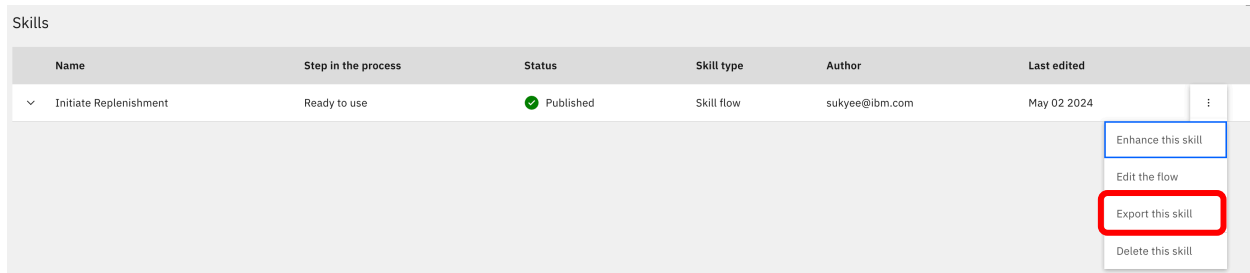
1. Go to “Skills and App” page. Look for the “[Your Name] Initiate Replenishment” Skill.

Skills and apps

Add new skills, train them to be more effective, and publish them to the catalog.



2. Click on the 3 dots and export the skills.



3. This will download a .json file on your local computer.
4. You will need a programme or code editor to edit this .json file.
5. Within the .json file, look for the type: input_form with form_title: “Your order details”.

```
"abac9fc2-c0e0-455f-8e5b-4cffa6851a5d": {  
  "type": "input_form",  
  "form_title": "Your order details",  
  "ins": [  
    {  
      "name": "Order Item",  
      "label": "Order Item",  
      "required": false,  
      "in": "path",  
      "description": "Order Item",  
      "x-ibm-label": "Order Item",  
      "schema": {  
        "type": "string",  
        "format": "",  
        "x-ibm-label": "Order Item",
```

6. In each schema, you will need to add on "x-ibm-disable": "true"

```
"ins": [  
  {  
    "name": "Order Item",  
    "label": "Order Item",  
    "required": false,  
    "in": "path",  
    "description": "Order Item",  
    "x-ibm-label": "Order Item",  
    "schema": {  
      "type": "string",  
      "format": "",  
      "x-ibm-label": "Order Item",  
      "x-ibm-disable": "true"  
    }  
  },  
],
```

```

{
  "name": "Order Quantity",
  "label": "Order Quantity",
  "required": false,
  "in": "path",
  "description": "Order Quantity",
  "x-ibm-label": "Order Quantity",
  "schema": {
    "type": "number",
    "format": "number",
    "x-ibm-label": "Order Quantity",
    "x-ibm-disable": "true"
  }
},
{
  "name": "Supplier Name",
  "label": "Supplier Name",
  "required": false,
  "in": "path",
  "description": "Supplier Name",
  "x-ibm-label": "Supplier Name",
  "schema": {
    "type": "string",
    "format": "",
    "x-ibm-label": "Supplier Name",
    "x-ibm-disable": "true"
  }
},

```

7. After adding in into the schemas, save the .json file.
8. You will need to add the skills through the .json file and publish the skills again.

```
{
  "name": "Supplier ID",
  "label": "Supplier ID",
  "required": false,
  "in": "path",
  "description": "Supplier ID",
  "x-ibm-label": "Supplier ID",
  "schema": {
    "type": "string",
    "format": "",
    "x-ibm-label": "Supplier ID",
    "x-ibm-disable": "true"
  }
},
{
  "name": "Cost Per Unit",
  "label": "Cost Per Unit",
  "required": false,
  "in": "path",
  "description": "Cost Per Unit",
  "x-ibm-label": "Cost Per Unit",
  "schema": {
    "type": "number",
    "format": "number",
    "x-ibm-label": "Cost Per Unit",
    "x-ibm-disable": "true"
  }
},
```