

watsonx Orchestrate Lab 4b:

Leveraging skill flow with automation

Objective

Now that we have all the skills and workflows in place, we can create a complete flow. You can create this flow within project or skill flow. Since Skill Flow is more readily available, we will build this final flow in the Skill Flows section.

Background

In lab 2, we imported an agent from Agent Lab. As of today's development, the agents imported into the watsonx Orchestrate environment are not able to interact with other tools (taking input or giving output). Therefore, this agent will need to be wrapped up as a skill. Your instance will already have the Supplier Research skill.

Skills	
Name	
✓	Optimal Reorder Quantity
✓	Supplier Research

[If time permits] Running the Supplier Research

1. Navigate to the chat interface from the right hand hamburger menu.
2. Type in "Research for product Xtralife Supplier"

Research for product Xtralife Supplier

3. Watsonx Orchestrate will try to understand the input and asked for confirmation.



watsonx 8:57 AM

Please confirm:
Query: Xtralife Supplier

Yes

No

4. After a few minutes, the agent will return a response.



watsonx 8:58 AM

Agent Response : Based on the pricing information provided and the procurement rules and sales reviews, the rating of the suppliers from top to bottom based on best to worst choice is as follows:

1. Excelentia Supplies: With a unit price of 61.5, Excelentia Supplies offers the most competitive pricing. Additionally, they have a strong sales performance with a total sales value of \$120,000 and a high on-time delivery rate of 95%. However, they have a slightly higher return rate of 2%, which may require review of their quality control processes.
2. Global Office Solutions: With a unit price of 76.9, Global Office Solutions is the second most competitive option. They have consistent sales performance with a total sales value of \$80,000, but their on-time delivery rate is lower at 92%. They also have a lower return rate of 1%, which is within the acceptable threshold.
3. CGV Supplier: With a unit price of 92.3, CGV Supplier is the least competitive option. There is no information provided about their sales performance or delivery rates, which makes it difficult to assess their overall value.

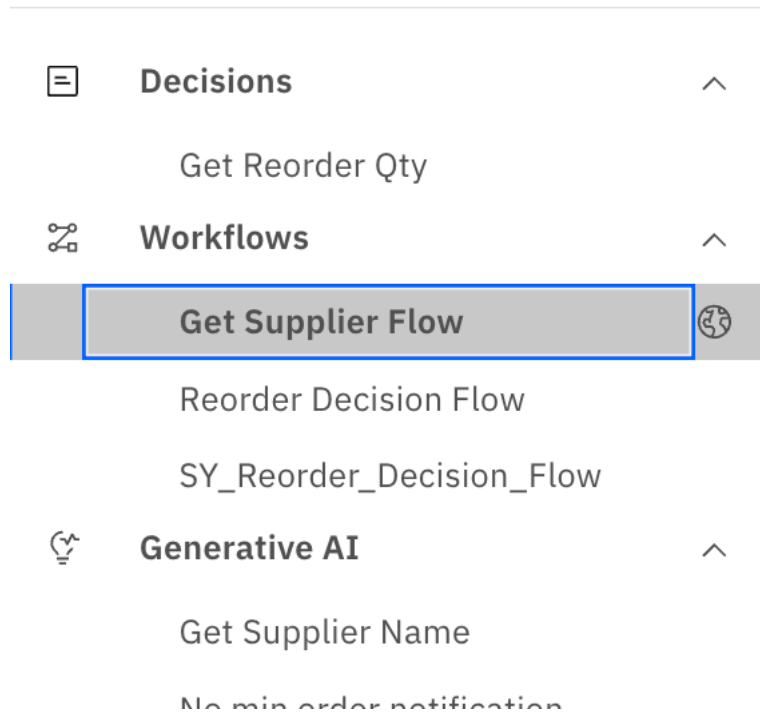
Therefore, based on the provided information, Excelentia Supplies is the best choice, followed by Global Office Solutions, and then CGV Supplier.

5. The information above is great, however we will actually need the most suitable supplier's name to act as an input to other skills.

6. We have already included this automation within the imported Project in Lab 3.

[Read only] Create a flow using custom agent

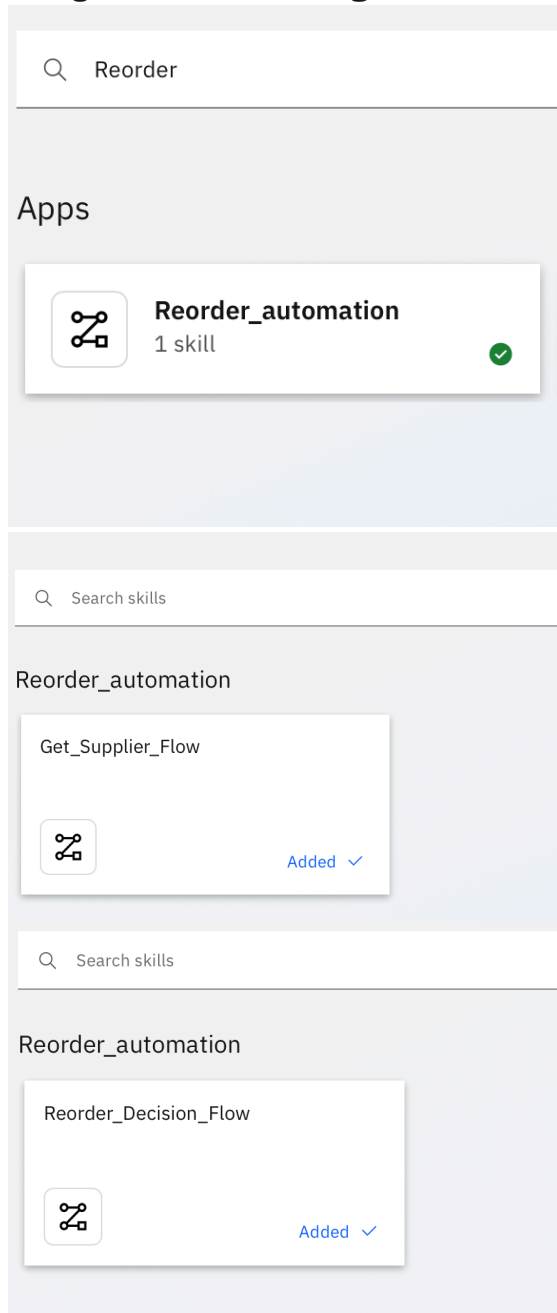
1. Navigate to skill studio and Project tab.
2. Click on your Project and click on Get Supplier Flow.



3. You will see the workflow which connects the Supplier Research Skill and a Generative AI component to extract the most suitable Supplier.

Create Reorder Skill Flow

1. Let's put all the components together in a skill flow.
2. Navigate to **Skill Catalog** and add two of the Reorder Automation Skills




3. Navigate to Skill studio and Create a Skill flow.
4. Name your skill flow [YourName]_Reorder Flow

Edit Skill flow details

×

Preview

Reorder Flow



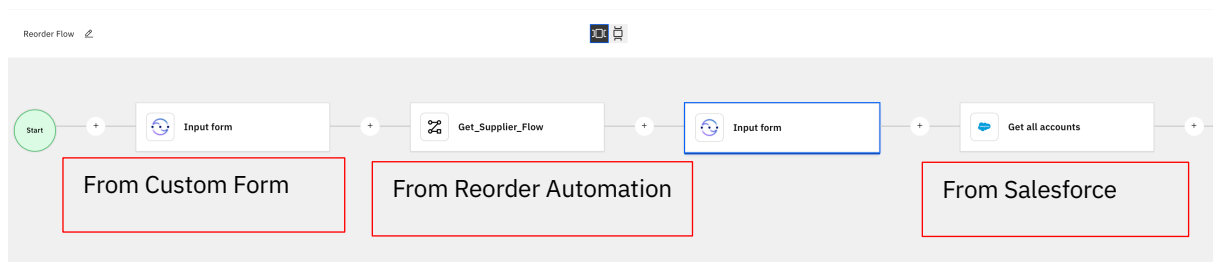
Name *

Reorder Flow


Description

0/100


5. Add in the first 4 components of the skills flow



6. Click on the first Input form and add in the following details:



Custom forms
 Display a form to input data

Clear all mappings 
 Generate mapping suggestions

Form title

How can I help you today?

Add input field +

Add input field

Input type

Configuration

abc Single line text

¶ Paragraph text

Add input field

Input type

Configuration

Display label

Query

7. Repeat Step 6 to create a field for “Reorder Quantity” with type “Number”.



Custom forms

Display a form to input data

Clear all mappings Generate mapping suggestions

Form title

Get Supplier Details

☐ Hide this form from the user

Query

Reorder Qty


8. Click on Get Supplier Flow and map the query field with the input form's query.


Query

Skills/Custom forms-Input form

Skill Output {#}

9. Click on the 2nd input form. Create 2 input fields
 - a. Supplier Name with "Paragraph text" type
10. Map the input form variables to the relevant output from Get Supplier Flow.

 **Custom forms**
Display a form to input data

[Clear all mappings](#)  Generate mapping suggestions

Form title

Supplier Response

☐ Hide this form from the user

Supplier Name

output.properties.Supplier X

11. Click on Get all Accounts and create a filter “Account name is Supplier Name”

#1 Filterable input	Operator	Value
Account nai ▼	is ▼	

Mapping data for "filter.properties.Name"

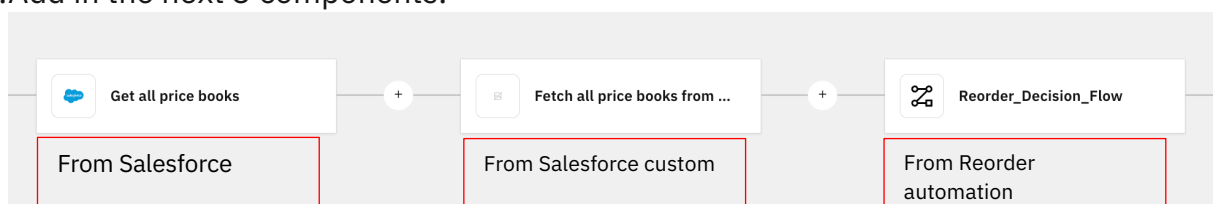
Skills/Custom forms-Input form

Skill Output {#}




Supplier Name abc

#1 Filterable input	Operator	Value
Account nai ▼	is ▼	Supplier Name X

12. Add in the next 3 components.




13. Click on Get all Pricebook and set a filter the same way as step 7.

#1 Filterable input	Operator	Value
Price Book 	is 	output.properti... 


14. Click on Reorder Decision Flow. We will need to map the input from various skills within the flow. For now let's hard code the reorder qty.

AccountID

instances.items.properties.Id 	Get from "Get all account" skills
---	-----------------------------------

[Add transformation](#) +


UnitPrice

price_books.items.properties.Unit Price 	Get from "Fetch all pricebook item..." skills
---	---

ReorderQty


2444	Fill in any number larger than 2000
------	-------------------------------------

PriceBookID

price_books.items.properties.Pricebook ID 	Get from "Fetch all pricebook item..." skills
---	---

[Add transformation](#) +

SupplierName

output.properties.Supplier 	Get from "Get Supplier Flow" skills
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15. After mapping all the values, publish your skill flow.

Connecting 2 Skill Flows

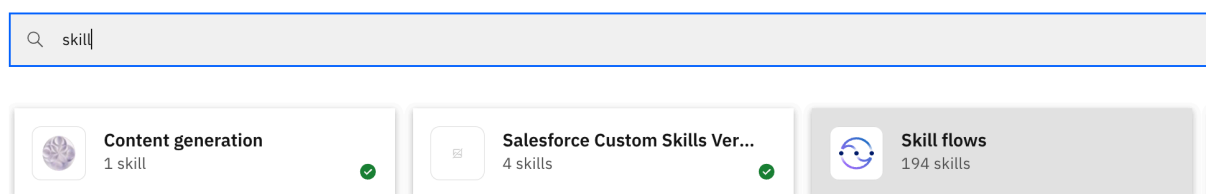
1. Next, we will connect the reorder quantity skill flow and the reorder skill flow together through the “Next best skill” option.
2. Go to Skill Studio and Skills and Apps.
3. Locate [YourName]_Calculate Reorder Qty Flow from the list.
4. From the triple dot menu, select Enhance Skill and navigate to the “Next best skills” tab.

Name	Phrases	Next best skills

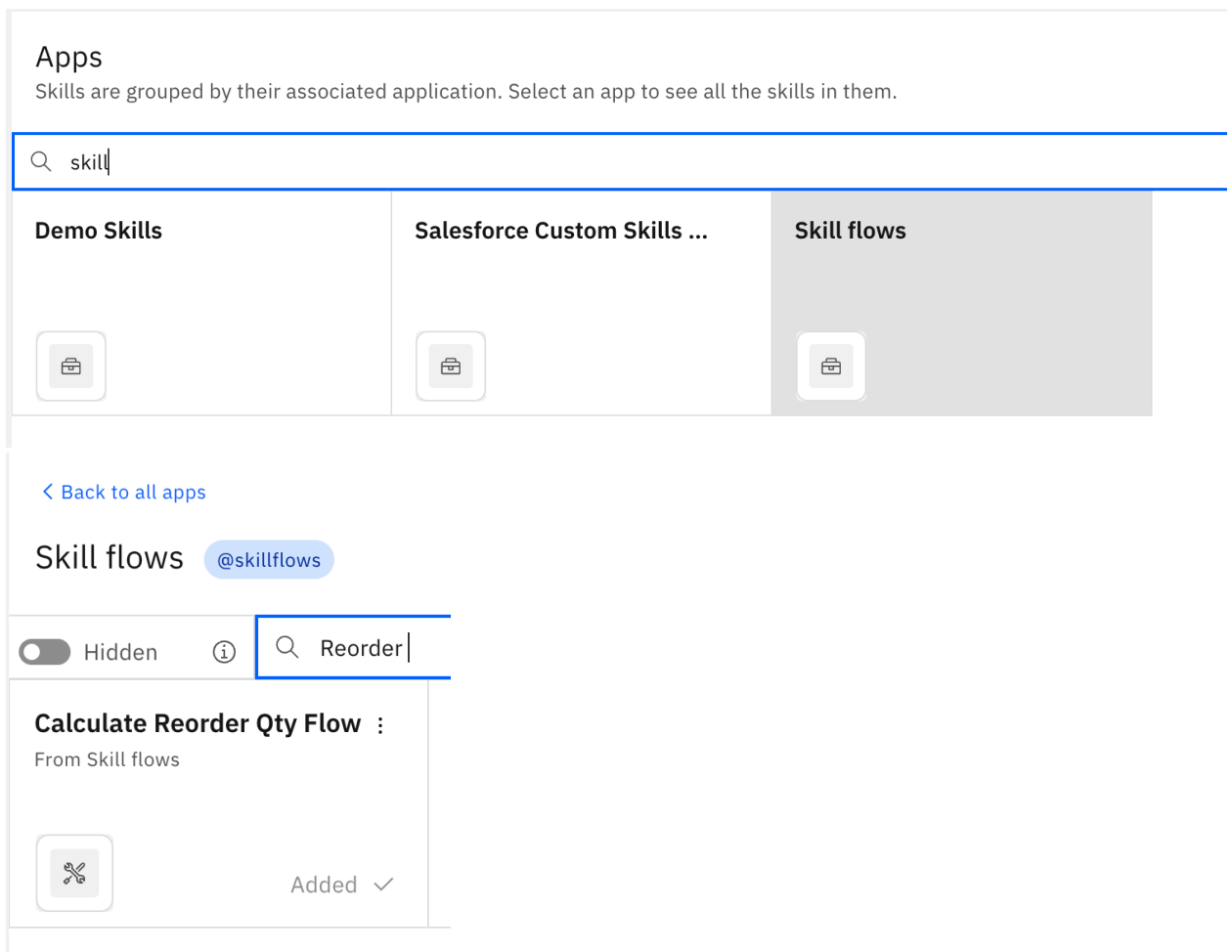
5. Click on the “+” sign and search for skill flows from the menu.



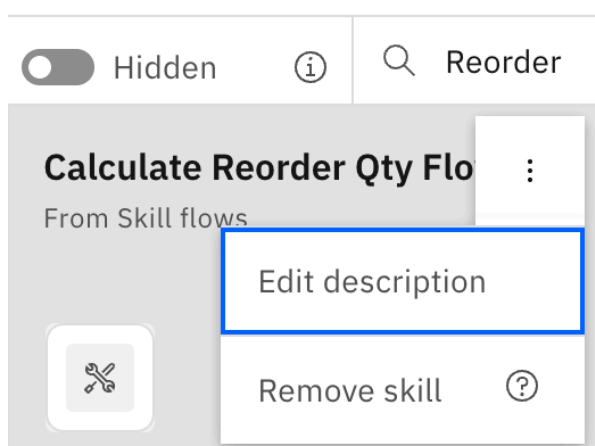
6. Search for the [YourName]_Reorder Flow and click “Add Skill”. (Withink skill flows)



7. Click Publish once you are done.
8. Add the [YourName]_Calculate Reorder Qty Flow skill into the AI agent configuration. For Description you can use the phrase “[Your Name] To complete reorder flow with reorder quantity calculation and placing order”.
9. Add the skills in AI Agent Configuration.



- 10.If you've added this beforehand, you will need to change the description to "[Your Name] To complete reorder flow with reorder quantity calculation and placing order"



- 11.Go to the chat interface and start a new chat. The chat can route user to the correct skill with just natural language. However since we are in a workshop environment, we will use "[Your Name] To complete reorder flow with reorder quantity calculation and placing order"

Product name

You 6:37 AM

To complete reorder flow with reorder quantity calculation and placing order

watsonx 6:37 AM

Calculate Reorder Qty Flow

Product name

is

Xtralife

Add filter

Cancel Apply

12.The next best skill will present itself in the following format

watsonx 6:40 AM

Select the next best action

Reorder Flow

13.Once you select the Reorder Flow, you will need to enter a query “Research best supplier for product Xtralife” to kickstart the next flow.

You 6:40 AM


Reorder Flow

watsonx 6:40 AM

query

Research for product Xtralife Suppliers


14.Ensure that there is no extra characters in this step. You can click into the space to remove it if any.

 Reorder Flow

Account name


is

Excelentia Supplies






Add filter


15. For this step, you will need to choose the entry with the supplier name that is determined by the previous steps. (A feature of Salesforce)


 Reorder Flow



price_books



	Unit Price	Pricebook ID	Product Name	Pricebook Name
<input type="radio"/>	61.5	01sIU00000F3g9AYAR	Xtralife	Excelentia Supplies
<input type="radio"/>	76.9	01sIU00000F3uJFYAZ	Xtralife	Global Office Solutions
<input type="radio"/>	92.3	01sIU00000F3g95YAB	Xtralife	CGV Supplier

Items per page: 10  1 – 3 of 3 items

1  of 1



Cancel

Apply

16. This will be the end-to-end flow for the procurement scenario. You can refer to the [video](#) to see the demonstration of this flow.