

HR Agent Lab – watsonx Orchestrate

Level: Beginner (20-30 minutes)

Your company's HR department is not meeting their agreed SLAs for response time to managers trying to get standard employee actions completed. Most actions require an HR professional to respond manually and not many policies are easily accessible to managers or employees requiring difficult lookup in documents.

The HR team would like to streamline and have chosen watsonx Orchestrate to help them make policies available from a natural language agent interface and event enable that agent to coordinate and take standard actions within the HR system at the direction of the manager.

Let's see how easy it is to get started!

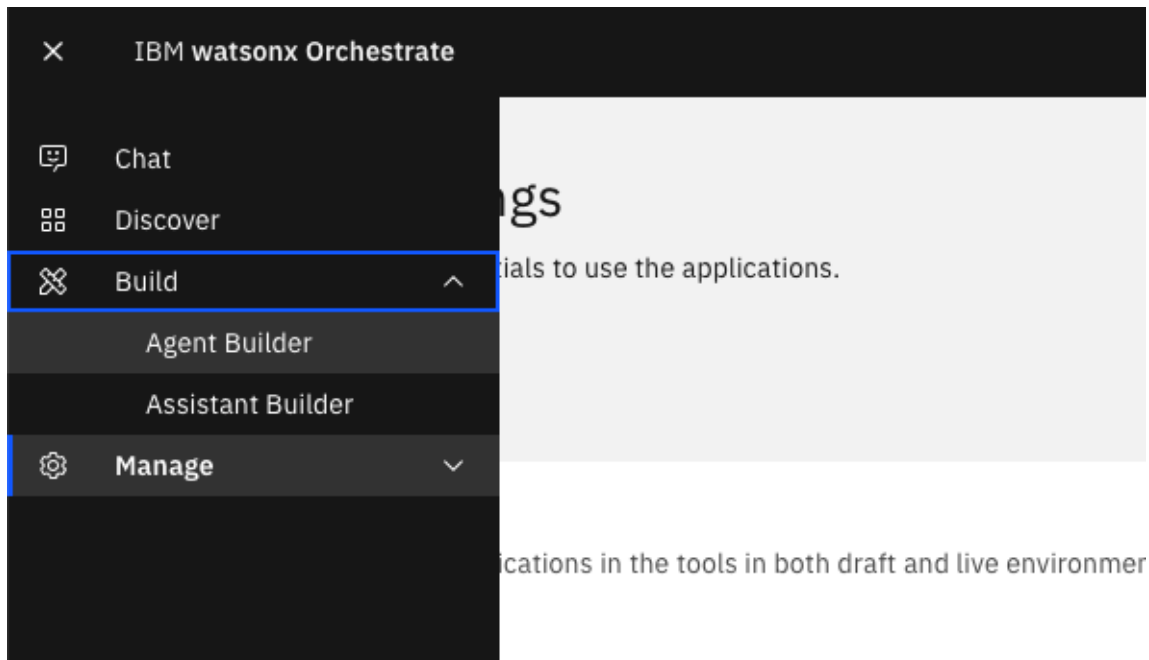
Requirements for onsite lab (at the event):

- An IBM ID login
 - Create one by visiting this [LINK](#)
 - You will receive an email indicating your IBMid account creation was successful and your account is now activated.
 - A few hours before the event, you will receive an **email from IBM Cloud** account for your lab (the account will be named **itz-watsonx-15** or similar).
 - Click **Join Now** in the email and accept the invitation to the account.
 - If you do not see the invitation, click the bell icon at the upper right of IBM cloud.
- SAP SuccessFactors connection and API key (only provided by IBM instructors for onsite labs)
 - Note: NO NEED to setup SAP SuccessFactors access, this will be provided for you and pre-connected by IBM instructors onsite.

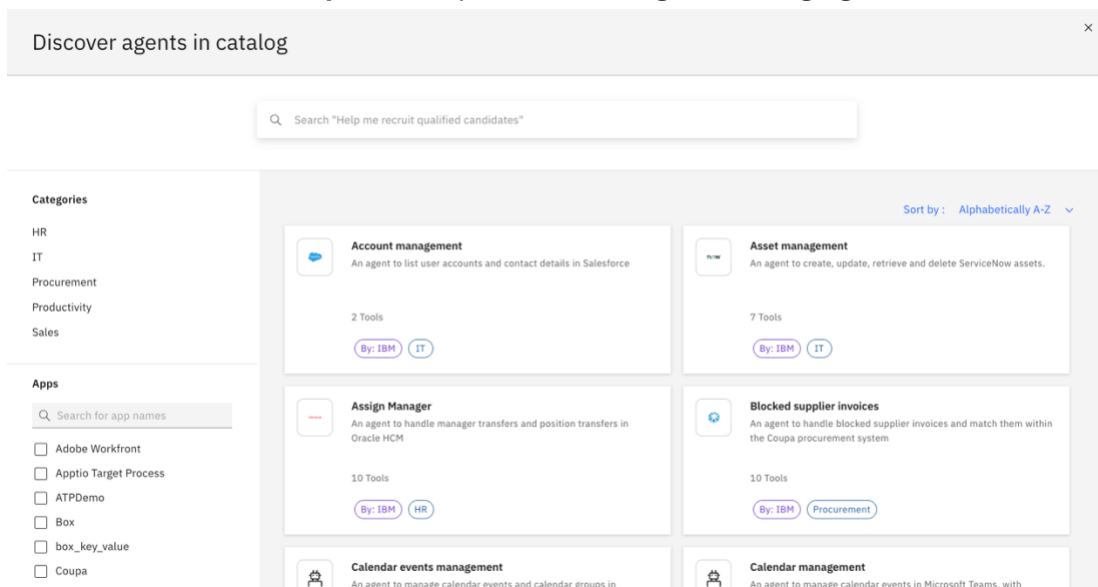
1. Create an agent

First, you will create the SAP Employee Support Manager Agent.

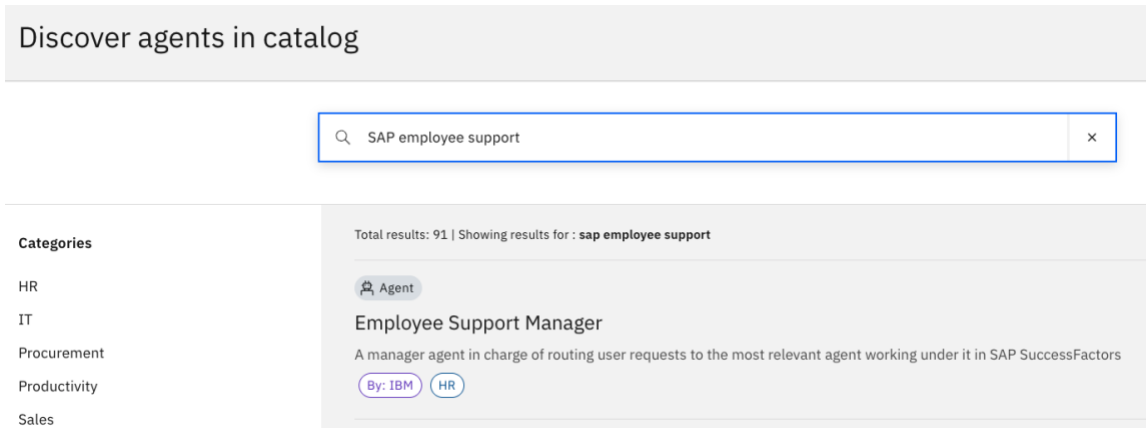
1. After logging in to watsonx Orchestrate open the upper left menu, click **Build -> Agent Builder**.



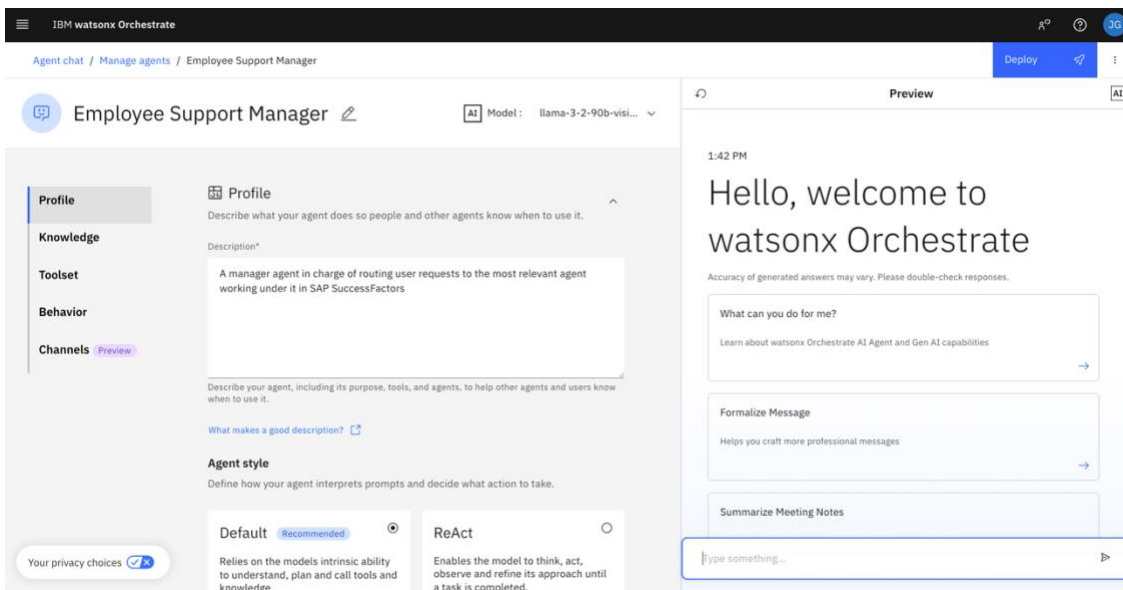
2. Click the blue **Create agent +** button.
3. Click **Create from Template** to open the catalog of existing agents.



4. Enter the following text and press ENTER to search the catalog for the **Employee Support Manager** agent within SAP SuccessFactors: SAP Employee Support

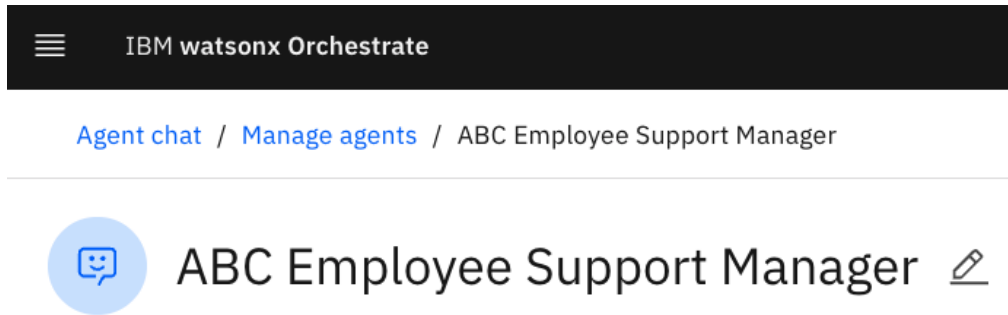


5. Click the name of the **Employee Support Manager** agent to open the details.
6. Click **Use as template**.
7. Review the agent's configuration in the Agent Builder and note the **Preview** pane on the right where you can try out your agent immediately.



8. At top left next to the name **Employee Support Manager**, click the pencil icon to rename the agent.

9. Add your initials before the name, such as ABC Employee Support Manager.



10. Review the **Profile** section but do not edit.
11. Scroll down on to the **Knowledge** section and click **Edit knowledge settings**.
12. Review the advanced settings available but do not edit and click **Cancel** when done.

The 'Edit knowledge settings' dialog box is displayed. It has a title bar with a close button (X). The dialog is divided into two main sections: 'Response' and 'Citations'. The 'Response' section includes three sliders: 'Retrieval confidence threshold' (set to 'Lowest'), 'Generated response length' (set to 'Moderate'), and 'Response confidence threshold' (set to 'Lowest'). The 'Citations' section includes a dropdown menu for 'Citations shown in web chat' (set to 'All'). At the bottom, there are two buttons: 'Cancel' and 'Save'.

13. Scroll down to **Knowledge source** and click the **Choose knowledge +** button.
14. Review the available source types and click **Upload files** to add a file local to the agent to use as knowledge.
15. Click **Next**.

16. Make sure you downloaded the IBM_2025_Benefits Guide.pdf file provided by your instructor.
17. Click to upload and select the above IBM_2025_Benefits Guide.pdf file.
18. Click **Next**.
19. Given the knowledge a **Description** as follows: This knowledge contains information on 2025 health plans and benefits. Customers can ask questions about plan details, comparisons and recommendations.
20. Review your knowledge source and click **Save**.

Choose knowledge source

Select source

Add knowledge

Description

Description

This description will inform the agent on the contents of the knowledge.

What makes a good description? [?](#)

Description

This knowledge contains information on 2025 health plans and benefits. Customers can ask questions about plan details, comparisons and recommendations.

Cancel


Back

Save

21. Watch to make sure the upload completes, and you see your knowledge source listed.

Knowledge source

Upload files or connect to content repositories to add knowledge to your agent.

[Change source](#) 



Files

 Connected

[Upload files](#) 

File name		Date uploaded	
IBM_2025_Benefits Guide.pdf		8/2/25	
Items per page: 5	1-1 of 1 items	1	of 1 page

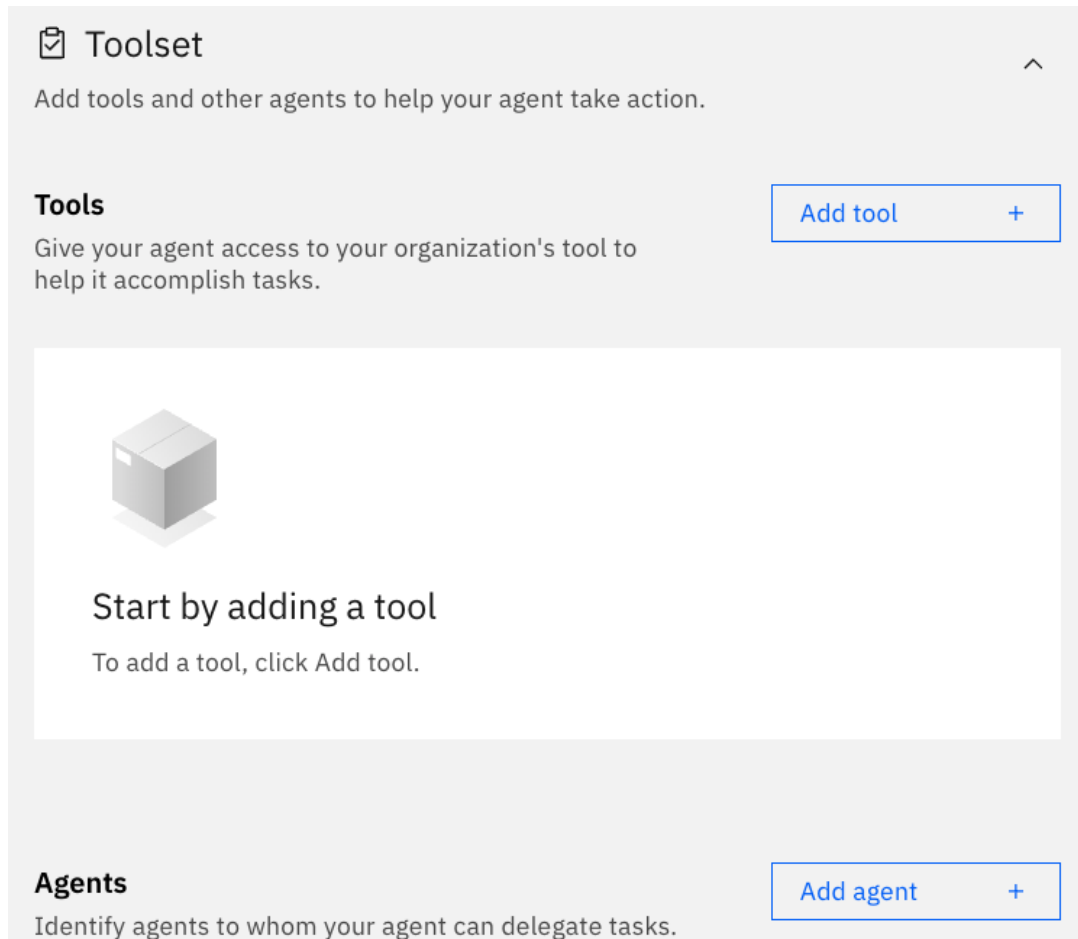
Knowledge source description

This knowledge contains information on 2025 health plans and benefits. Customers can ask questions about plan details, comparisons and recommendations.

2. Add collaborator agents

Now that you have your base agent defined with knowledge to allow for RAG (Retrieval Augmented Generation) on the document uploaded, you will add collaborator agents to provide more actions.

1. Scroll down to the **Toolset** section and find the **Agents** sub-section.



2. Review the existing collaborator agents such as Employee Personnel Details, Internal Mobility, and more.


Our manager agent can reason and then delegate to these agents based on the user's query.

Agents

Identify agents to whom your agent can delegate tasks.

Add agent


+



Employee Personal Details

An agent to handle retrieving and updating employee personal information in SAP SuccessFactors

Tools	Agents
6	—



Internal Mobility

An agent to handle employee organization changes (title, location, promotion, transfer) in SAP SuccessFactors.

Tools	Agents
12	—

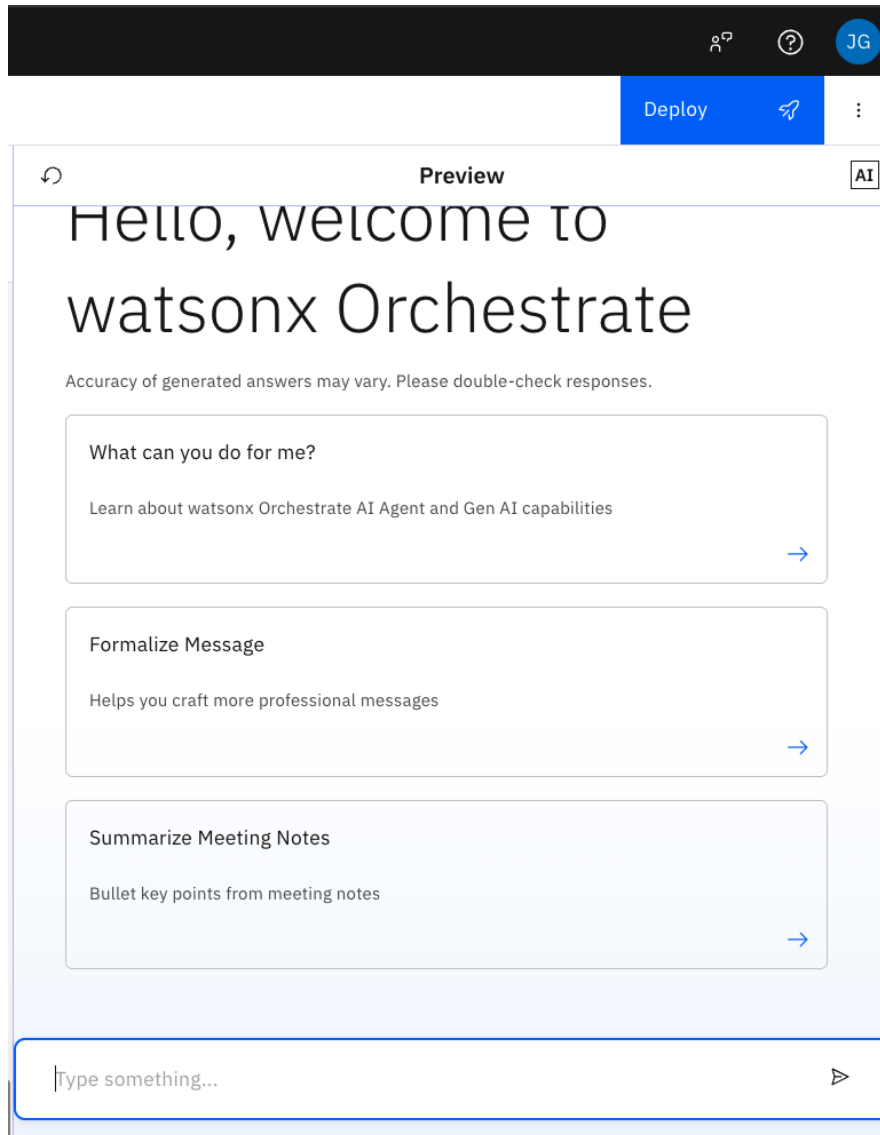
3. Scroll down to the **Behavior** section.
4. Review the instruction given to our manager agent, including what it is intended to do, how it should respond, and any restrictions. Note the behavior ends with the following: Your job is to delegate tasks to the most appropriate agent.

Your agent is ready to try out!

3. Preview your agent

Now you can try to use your agent directly in the Agent Builder's **Preview** pane.

1. Click into the chat field at the bottom of the **Preview** pane.



2. Enter the following text into the chat and press

ENTER: What are the dental plan options for 2025?

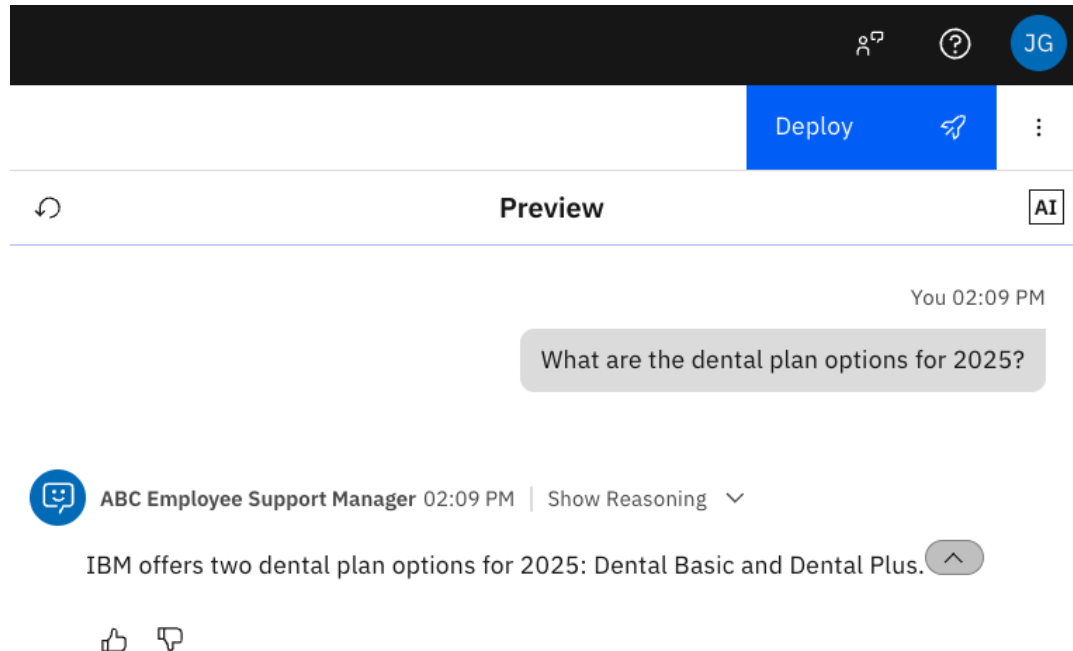
Next ENTER: What is the IBM HSA contribution for the HDHP plan?

Next ENTER: What is the difference between the two Legal options that IBM Provides?

NOTE: This will use a RAG scenario based on the knowledge uploaded as files. You

can ask it to format it as a table making it more readable.


3. Watch the reasoning occur and the final result should be similar to the following (note, results can vary when using generative AI):





4. You can optionally choose to press the thumbs up or down button to give your agent feedback on its results.
5. Enter the following text into the chat and press ENTER: Show me payslips for jadannb@test.com for 2018-01-01 to 2018-01-31.


NOTE: This will use the SAP Compensation Agent to retrieve data about the employee's pay and benefits.

6. Wait for the agent to finish reasoning and display the textual results.

 **Preview** AI

- End Date: 2018-01-15
- Start Date: 2018-01-01
- Wages:
 - Gross: \$3654.70
 - Net Pay: \$2363.95
 - Taxes: \$1185.61
 - Other: -\$105.14
 - Salary: \$3504.70
- Payslip 2:
 - Currency: USD
 - End Date: 2018-01-31
 - Start Date: 2018-01-16
 - Wages:
 - Gross: \$4530.87
 - Net Pay: \$2849.31
 - Taxes: \$1550.13
 - Other: -\$131.43
 - Salary: \$4380.87



7. Scroll in the chat up to the top of the results and click **Show Reasoning** to the right of the name of your agent to show the steps the agent took to determine the response.



ABC Employee Support Manager 02:13 PM | Show Reasoning ▾

Here are the payslips for jadannb@test.com for 2018-01-01 to 2018-01-31:

- Payslip 1:
 - Currency: USD
 - End Date: 2018-01-15
 - Start Date: 2018-01-01
 - Wages:
 - Gross: \$3654.70
 - Net Pay: \$2363.95

8. Click to expand the technical details of the three steps. The first gathered data using natural language processing and transferred to the SAP compensation agent, the second retrieved the user id required for the third step to get payslip details.
9. Enter the following text into the chat and press ENTER: `show me this in a table.`



ABC Employee Support Manager 02:21 PM

Here is the information in a table format:

Payslip	Currency	End Date	Start Date	Gross	Net Pay	Tax
1	USD	2018-01-15	2018-01-01	\$3654.70	\$2363.95	\$1000.00
2	USD	2018-01-31	2018-01-16	\$4530.87	\$2849.31	\$1681.56



10. Enter the following text into the chat and press ENTER: `What about the last month of that year?`

The context is retained by the agent and it reasons to get the payslips for the last month of the year instead of the first month, still displayed in a table format..



ABC Employee Support Manager 02:22 PM | Show Reasoning ▾

ere is the information in a table format:

Payslip	Currency	End Date	Start Date	Gross	Net Pay	Taxe
1	USD	2018-12-15	2018-12-01	\$4767.43	\$2978.88	\$165
2	USD	2018-12-31	2018-12-16	\$4305.69	\$2726.89	\$145



11. Enter the following text into the chat and press ENTER: What are the compensation details for jadannb@test.com?



ABC Employee Support Manager 02:24 PM | Show Reasoning ▾

The compensation details for jadannb@test.com are:

- Currency: USD
- Yearly Base Salary: \$125,068.78



12. Enter the following text into the chat and press ENTER: Who are the direct reports for Theresa.Chin@bestrunsap.com?

NOTE: These will use the SAP Org Structure Agent to help the user retrieve their direct reports, and the SAP Employee Immigration Agent to look up data about an employee's visa status.



ABC Employee Support Manager 02:29 PM | Show Reasoning ▾

The direct reports for Theresa.Chin@bestrunsap.com are:

Name	Email	Department	Division
Alan Chong	Alan.Chong@bestrunsap.com	Production MY (5000126)	Manufacturing (MANU)
John Goh	John.Goh@bestrunsap.com	Operations MY (5000012)	Manufacturing (MANU)



13. Enter the following text into the chat and press ENTER: Do any of those direct reports have visas expiring soon?
14. Click **Show Reasoning** to the right of the name of your agent to show the steps the agent took to determine the response. Note there are five steps, the first to transfer, the second to get the first report's user id, the third to get the visa details, and the fourth and fifth to get the other report's user id and visa details.



ABC Employee Support Manager 02:31 PM | Show Reasoning ▾

Neither of Theresa.Chin@bestrunsap.com's direct reports have visas expiring soon.



15. Enter the following text into the chat and press ENTER: What holidays do we get this year?

4. Deploy the agent

You are ready to deploy to the main chat!

1. Click **Deploy** at the upper right.
2. Note the credential information that will be used when your agent is deployed to the main chat
3. Click **Deploy**.
4. Wait for the Success message.

Your agent is deployed and ready for use in the main chat. You can go back to the chat and select it in the upper right **Agents** drop down if you wish. Congratulations!

Explore More: Tools and Flows

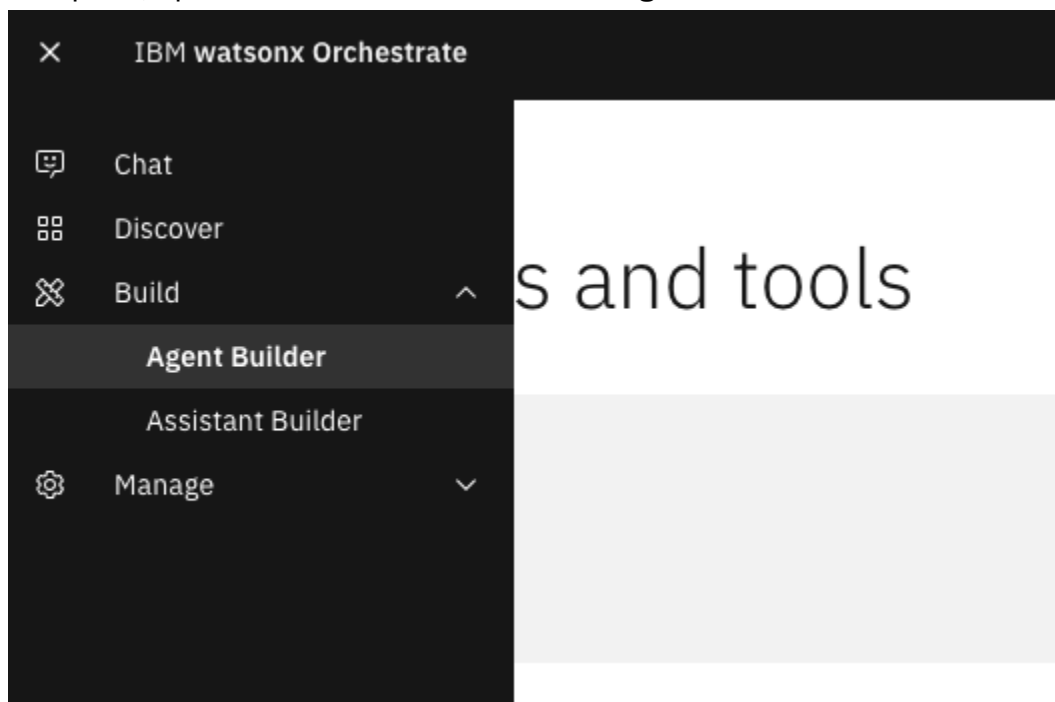
Tools are essential components of agents, enabling them to perform actions such as querying data, creating documents, or executing transactions on behalf of users. Some tools might require a connection to work properly.

IBM watsonx Orchestrate includes a set of built-in tools that can be used in agents. These tools are designed to be highly versatile and applicable to a wide range of scenarios. Additionally, builders can define their own custom tools as needed.

Tool Builder

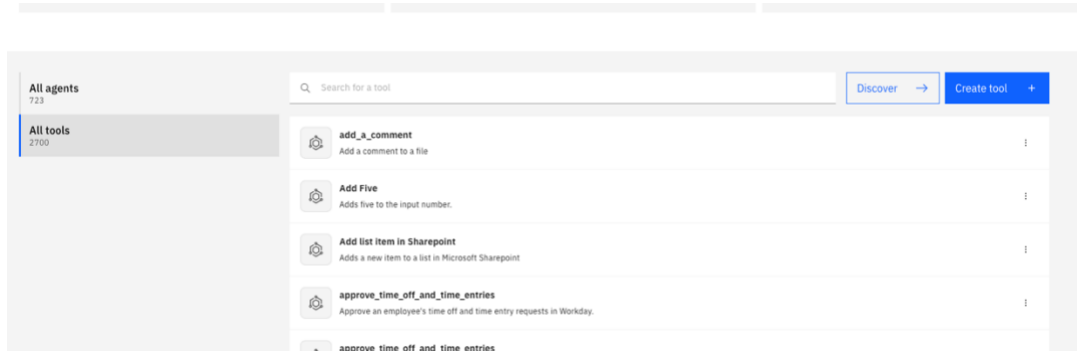
Let's open and review the Tool Builder.

1. At top left, open the menu and click **Build -> Agent Builder**.



Here you will see the existing tools and agents in the current watsonx Orchestrate instance.

2. Click **All Tools** -> **Create tool +**.



3. You will then see options to create a tool by:
 - a. Importing your own OpenAPI file (.json or .yaml file types are supported).
 - b. Using the Flow Builder to create a sequence of steps with multiple tools.
4. Optionally import the OpenAPI examples from your **Advanced Lab** to create a tool.

Flow Builder

What is a Flow?

Flow is an agentic workflow tool with built-in agentic capabilities and automations that support arbitrarily complex orchestration of multiple agents, tools and people. Each node can represent an agent, a tool, or built-in capabilities such as user interactions, prompts, or decision logic.

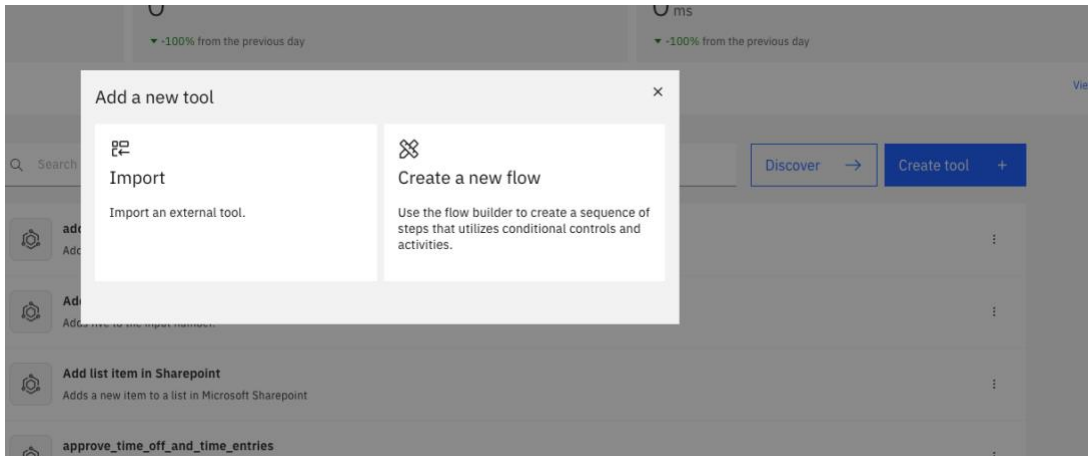
With flows, you can design various control structures, including conditional branching (if-then-else or switch-case), iteration over lists using for each, and loops that repeat actions until specific conditions are met.

A flow is composed of nodes and edges. You define nodes of different types and connect them using edges. Because flows can take several seconds to execute depending on their complexity, they run asynchronously.

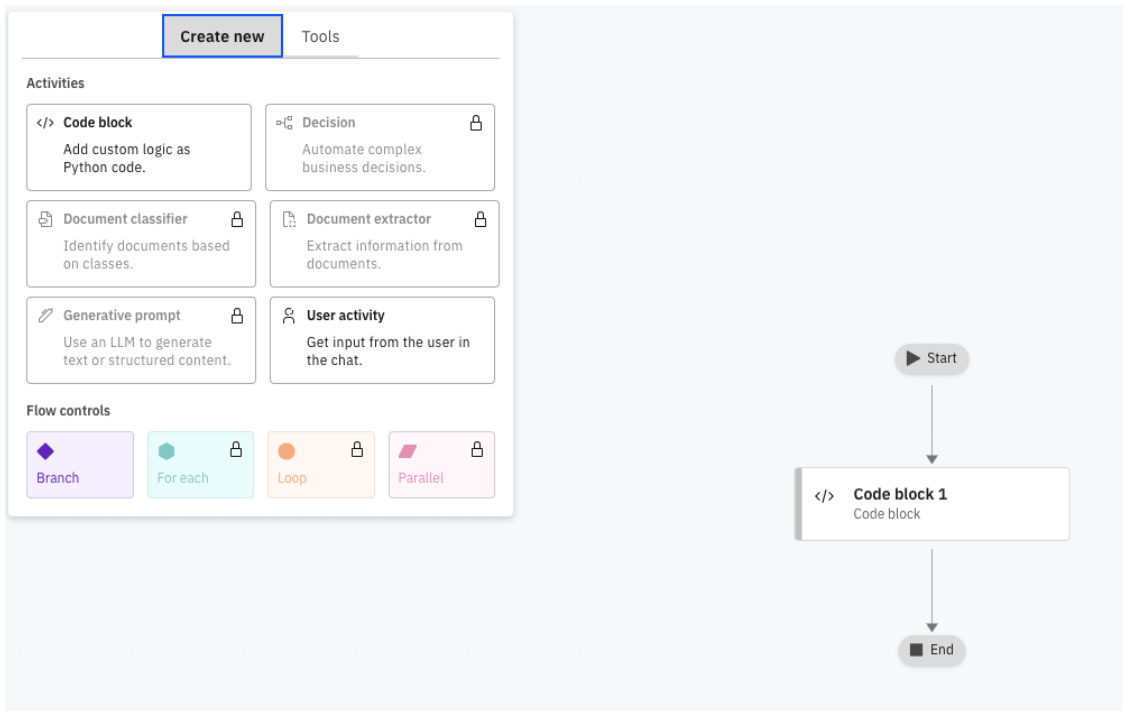
Creating a Flow

Let's explore creating a new flow!

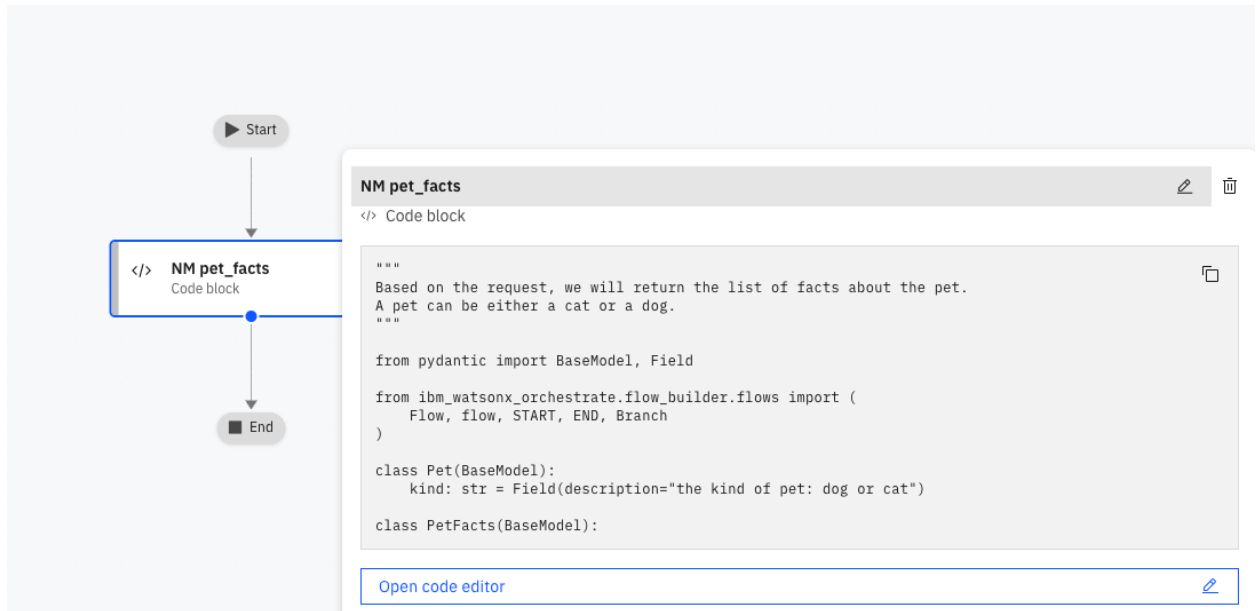
1. Click on **Create a new flow**.



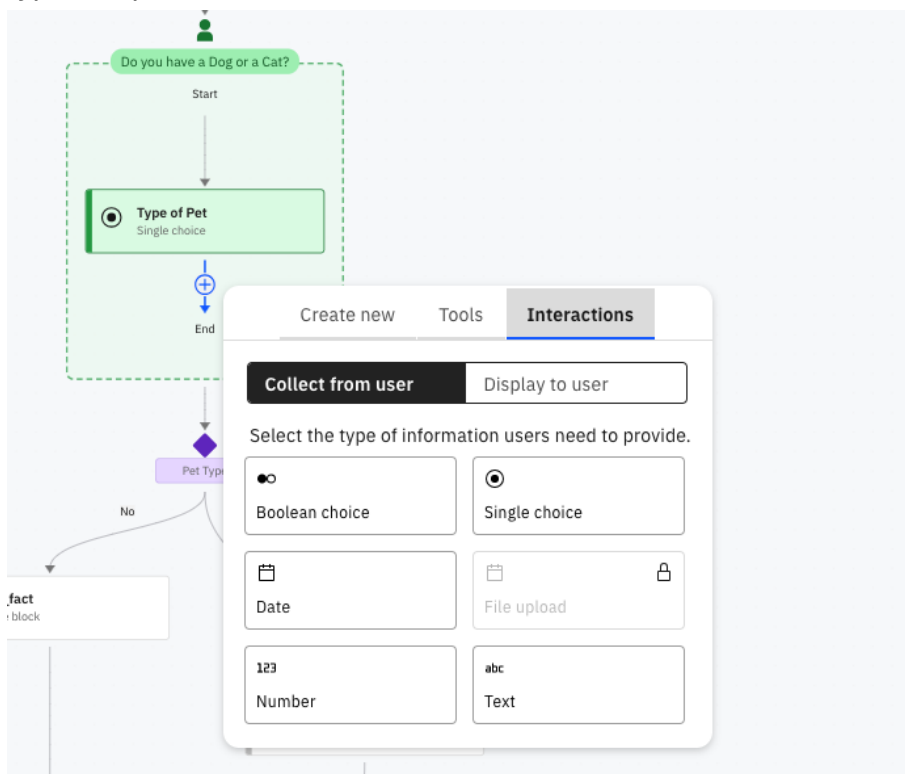
2. Review the Flow canvas that appears. On the top left, you see a panel with different types of tools/activities that can be created. Some of these options may be grayed out. With subsequent releases, more tool capabilities, flow controls and customizations will be introduced.



3. Explore the available capabilities. Click and drag the **Code Block** or **User Activity** tile and drop it between **Start** and **End** nodes.
4. In the **Code Block** tile, you can edit the name, add your custom python code and define your output variables.

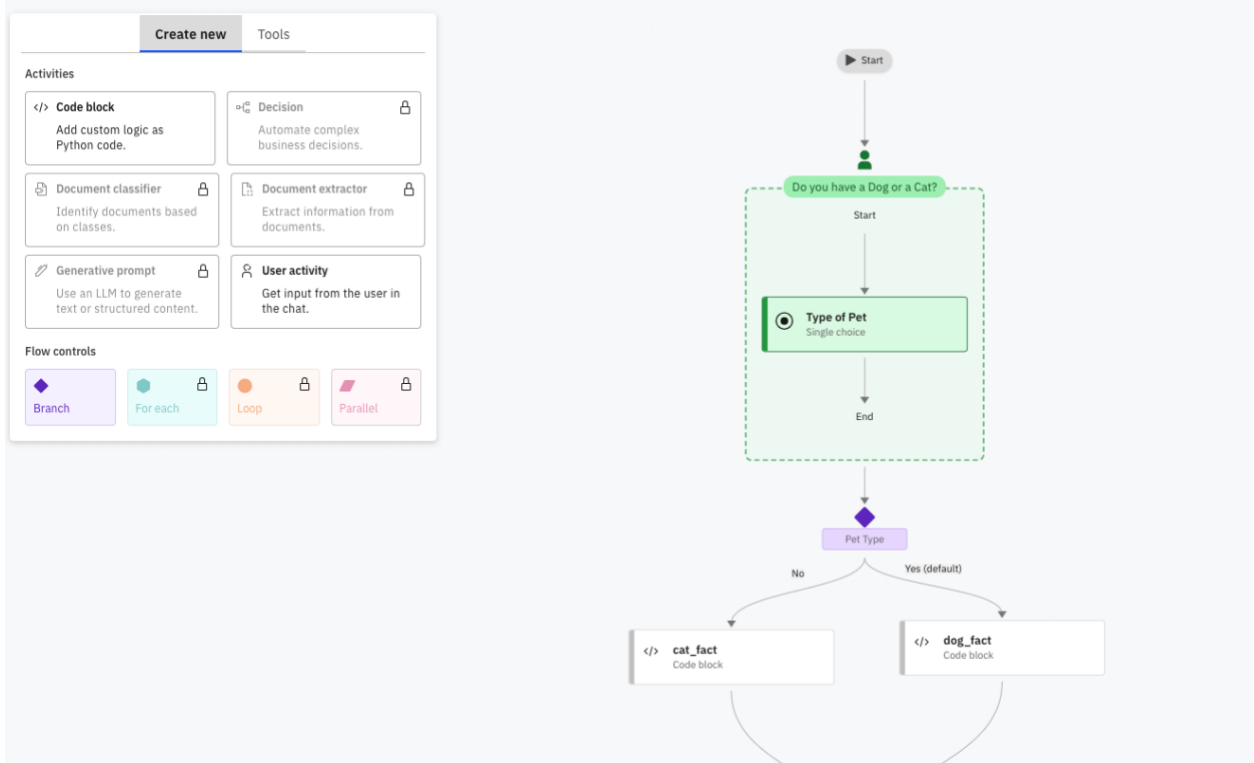


5. In the **User Activity** tile, you can add your own user input prompt. Click on the plus sign between the **Start** and **End** nodes of the user activity tile to show the different type of inputs that can be collected from the user as seen below.



6. Explore the **Branch** flow controls. Add your own conditional expressions to have your tool route to the appropriate next step. Type ahead available is available to help

with syntax and examples.



Tips and Resources

When to use a Flow?

- Whenever you need a repeatable, predictable sequencing of agents, tools and people.
- When it is going to take more than a couple minutes. Because flows are long running, it can be used to sequence long chain of tasks that can take hours or days.
- When user interaction is desired (human-in-the-loop).
- When scheduling is required.

Hope you enjoyed exploring watsonx Orchestrate. If you are a developer looking to build custom tools and agents, please check out the [Agent Development Kit \(ADK\)](#).