

Participant instructions

What are you supposed to do?

Activity 1 (pgs. 1 – 10) : Build and engage with your own AskBenefits agent

Activity 2 (pgs. 10 – 13) : Integrate a collaborator AskDental agent

Activity 3 (pg. 13-14) : Test different scenarios

Reset instructions (pg. 14-15)

Activity 1: Build your own AskBenefits agent

In this activity, you'll step into the role of an AI solution developer working within the IBM watsonx Orchestrate platform. The lab is designed to simulate a real-world healthcare use case by guiding you through the process of creating, configuring, and deploying intelligent agents from scratch. This activity demonstrates how intelligent agents can be configured and deployed n watsonx Orchestrate to address healthcare-specific use cases. Upon the completion you will:

- Understand the end-to-end agent creation process
- Learn how agentic AI uses context, memory, and tools to enable adaptive, natural multi-turn interactions
- Be familiar with OpenAPI-based tool integration
- Get practical experience with multi-agent solutions
- Gain experience testing and validating agent behaviour in practical scenarios

You'll be completing two core activities:

1. Build your own AskBenefits agent – a digital agent that answers questions about medical procedures and health plan benefits. It detects if a procedure is past, future, or overdue and uses the right tools to respond. It can retrieve past procedure data, flag overdue care, guide upcoming procedures, help schedule/reschedule appointments and showcase HR policies regarding eligibility criteria, dependant coverage, claims process and more (from the uploaded knowledge).

2. Enable collaboration between AskBenefits and pre-configured AskDental agent – an agent that supports questions about dental benefits by referencing a PDF document. It can answer a range of questions about coverage and plan details.

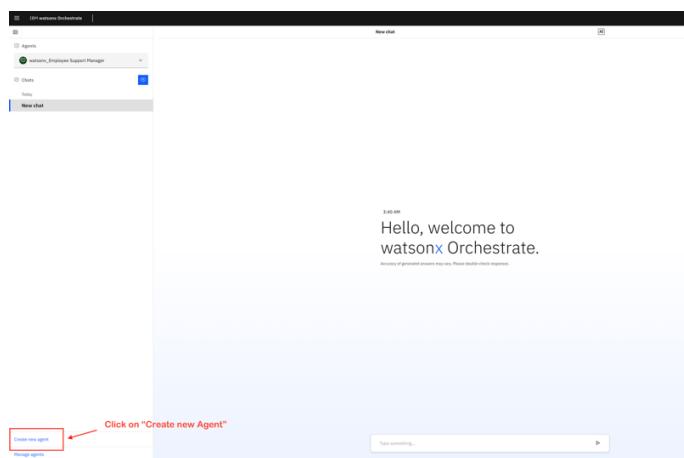
What you'll need?

- Access to IBM watsonx Orchestrate instance (prepared on each laptop by the try-out room facilitator)
- The OpenAPI specification file (ask_benefits_tools.yaml), needed for the AskBenefit agent– find in the laptop Desktop folder. If not available [Click to download](#)

Let's get started with the step-by-step instructions:

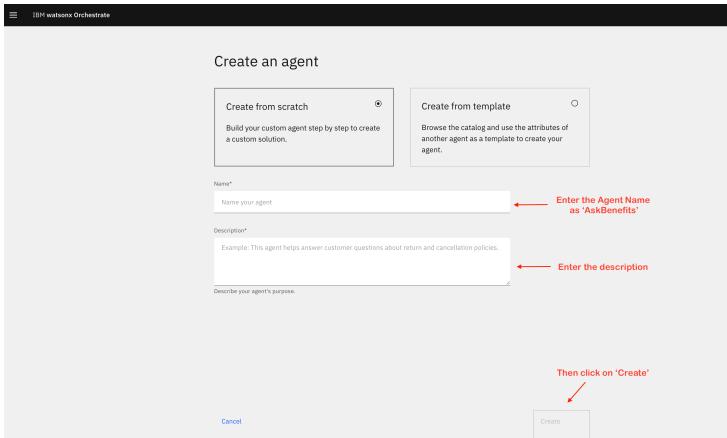
Step 1: Create a new AskBenefits agent

- Click on ‘Create new Agent’ at the left bottom corner



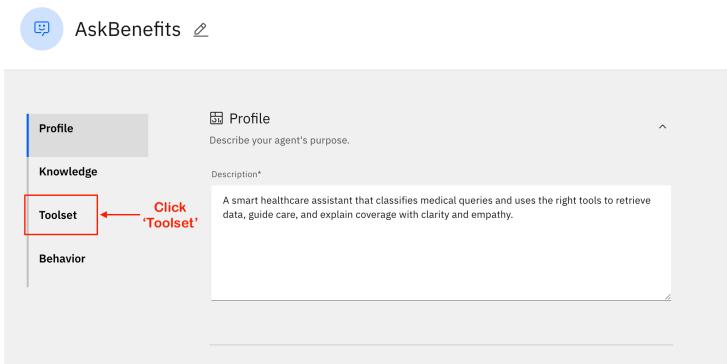
- Enter the agent name and description:
Name – <Your_Name>_AskBenefits
Agent description – *A smart healthcare agent that classifies medical queries and uses the right tools to retrieve data, guide care, book appointments and explain coverage with clarity and empathy.*

- Then click on ‘Create’.

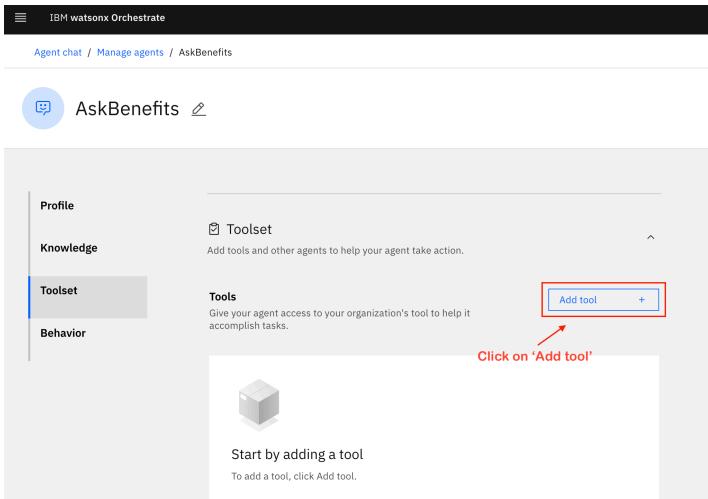


Step 2: Import and attach tools

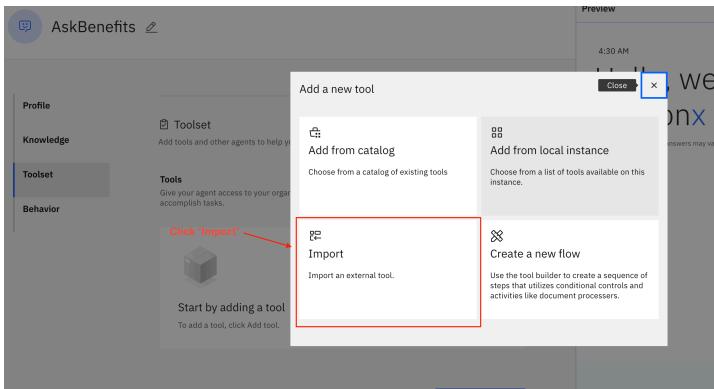
- Click the ‘Toolset’ tab on the left-hand panel



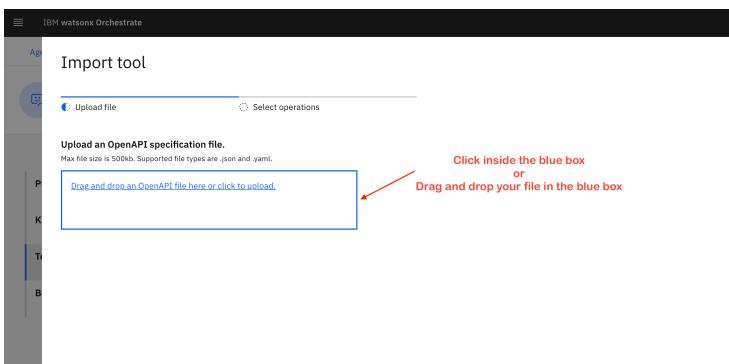
- Click on the ‘Add tool’ button



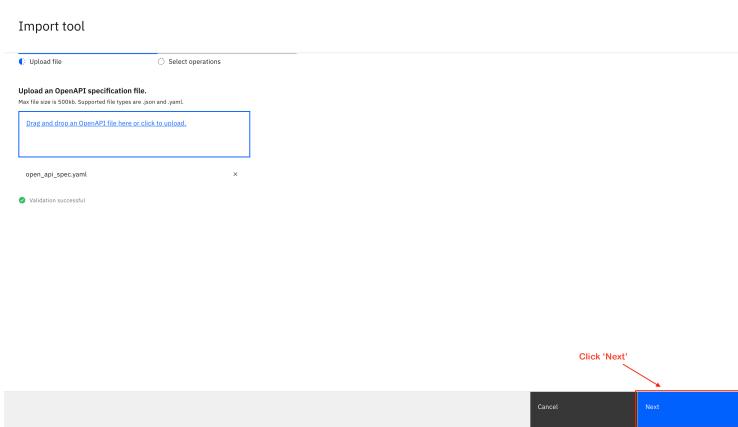
- Select the ‘Import’ option in the pop-up window



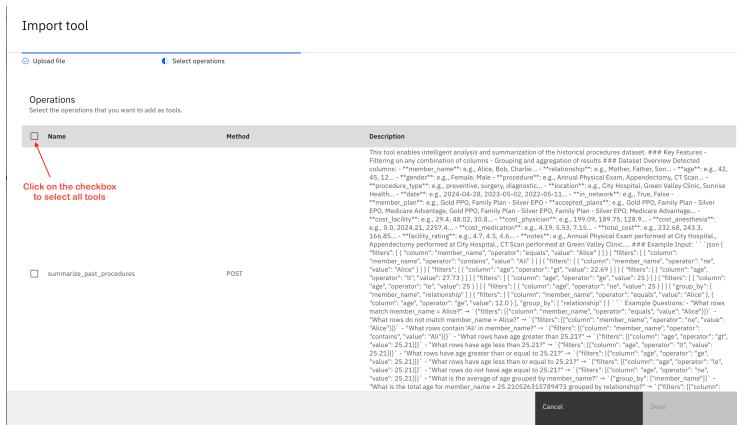
- Click inside the blue box to select the *ask_benefits_tools.yaml* file from the desktop folder



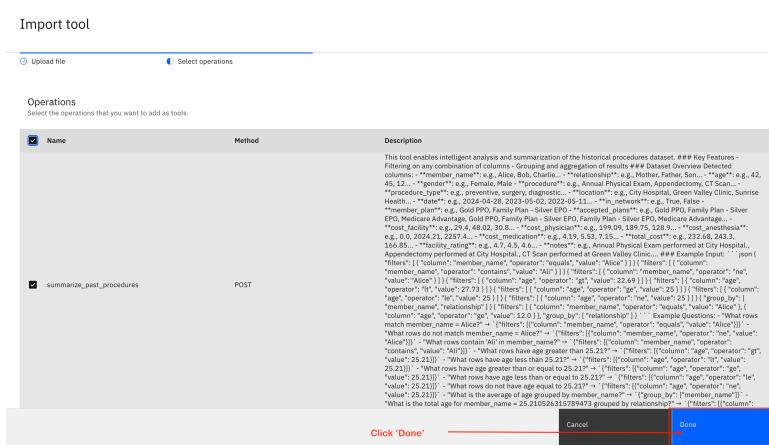
- Once the file is imported successfully, click ‘Next’



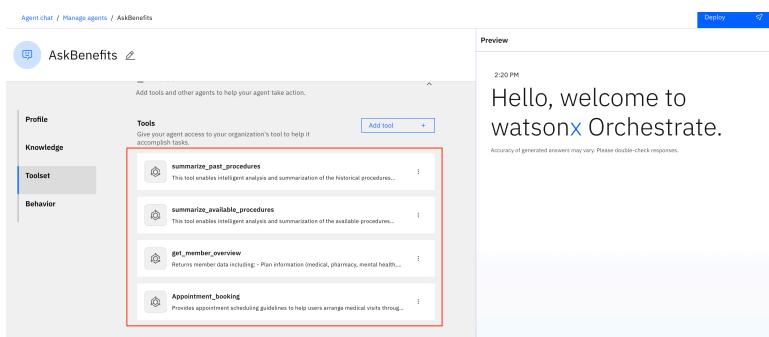
- Click “Select all rows in the table” checkbox to select all available tools



- Then click on the blue ‘Done’ button at the right bottom corner



- Notice the 9 tools were added to your agent



Step 3: Upload knowledge document

- Click the ‘Knowledge’ tab in the left-hand panel

IBM Watsonx Orchestrate

Agent chat / Manage agents / AskBenefits

AskBenefits

Profile

Knowledge (Selected)

Toolset

Behavior

Profile

Describe your agent's purpose.

Description*

A proactive healthcare assistant that helps users with questions about medical procedures and health benefits. It classifies each query as past, future, or overdue, then triggers the right tool to respond. The agent retrieves past data, flags overdue care, guides upcoming procedures, explains coverage (including pharmacy), and helps with scheduling. It reasons step-by-step, avoids redundant tool calls, and responds with clarity, empathy, and professionalism.

- In the ‘Document’ section click on ‘Upload files’

IBM Watsonx Orchestrate

Agent chat / Manage agents / AskBenefits

AskBenefits

Profile

Knowledge (Selected)

Toolset

Behavior

Documents

Upload files or connect to content repositories to add knowledge to your agent. Select which method you prefer.

Files (0)

Upload files to give additional context to your agent.

Files must have unique names. The max file size is 25 MB. The maximum number of files uploaded in one batch is 20, and the total size limit of one batch is 50 MB. Supported file types are .txt, .pdf, .csv, .docx, .xlsx, .pptx, and .htmlx.

Content repository

Add knowledge to your agent by connecting to an external repository.

Connect content repository +

- Select the ‘HR_Policy_Medicalbenefits.pdf’ file from the desktop folder and click ‘Upload’

IBM Watsonx Orchestrate

Agent chat / Manage agents / AskBenefits

AskBenefits

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Content repository

Add knowledge to your agent by connecting to an external repository.

Connect content repository +

Upload

Drag and drop files here or click to upload

HR_Policy_Medicalbenefits.pdf

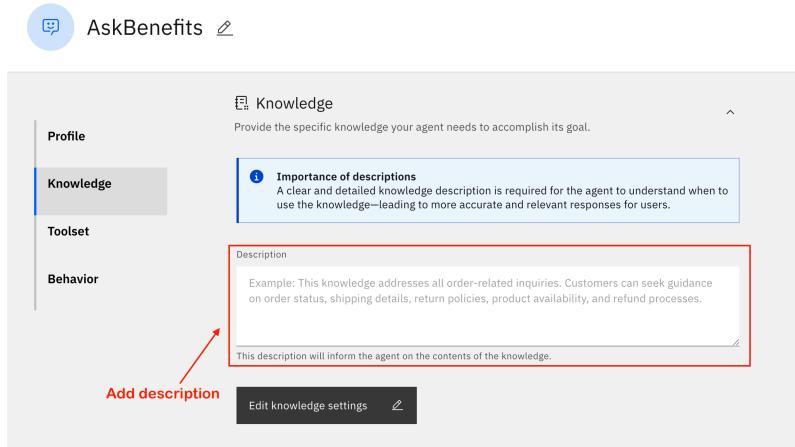
Select the file from your desktop folder & then click 'Upload'

Cancel Upload

Toolset

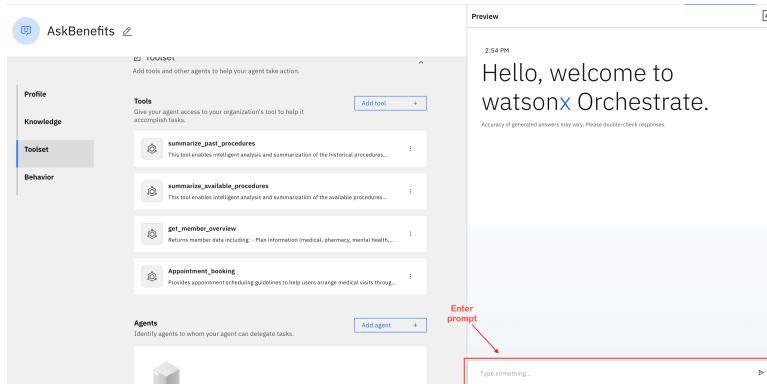
- As a best practice, in the Knowledge description field, add the below context to inform the agent on the contents of the knowledge

“This document covers key healthcare benefit policies—eligibility, coverage, claims, exclusions, and post-employment options. Use it to answer employee questions related to health benefits”



Step 4: Test the agent

- In the Preview panel enter the below prompts one-by-one in the “Type something...” field and press Enter.



Prompt 1: Can you give me a cost breakdown for X rays?

Expected outcome - The agent displays the X-ray cost breakdown across multiple hospitals, including facility, physician, anesthesia, and medication charges.

What's happening behind the scenes?

To understand that click on ‘Show reasoning’ and expand the steps.

Preview AI

You 10:32 AM
Can you give me a cost breakdown for X rays?

AskBenefits 10:32 AM Show Reasoning ← Click 'Show Reasoning' and expand the steps

Here is a cost breakdown for X-rays:

- Facility cost: \$11,789.50 (City Hospital), \$6,282.11 (Regional Medical Center), \$11,093.10 (Green Valley Clinic), \$20,032.20 (Oceanview Medical)
- Physician cost: \$8,169.81 (City Hospital), \$5,478.68 (Regional Medical Center), \$4,648.55 (Green Valley Clinic), \$10,423.70 (Oceanview Medical)
- Anesthesia cost: \$4,036.06 (City Hospital), \$4,498.38 (Regional Medical Center), \$3,684.19 (Green Valley Clinic), \$3,373.14 (Oceanview Medical)
- Medication cost: \$449.00 (City Hospital), \$2,134.35 (Regional Medical Center), \$598.84 (Green Valley Clinic), \$1,101.05 (Oceanview Medical)
- Total cost: \$24,444.30 (City Hospital), \$18,393.50 (Regional Medical Center), \$20,024.70 (Green Valley Clinic), \$34,930.20 (Oceanview Medical)

Key observations - When you insert the prompt, the Agent:

1. Understands user intent: The agent correctly interprets the request as requiring a filtered view of cost-related procedure data.
2. Dynamic tool invocation: It selects the correct tool: *Available_procedures*, which is appropriate for analysing procedure costs from a dataset.
3. Structured reasoning via filters: It creates a structured query using:
`"filters": "[{\\"column\\": \"procedure\", \\"operator\\\": \"equals\", \\"value\\\": \"X ray\"}]"`

This shows the agent's ability to construct a parameterized request dynamically based on the user's natural language.

Prompt 2: *Which among them is the cheapest?*

Expected output: The agent compares total costs and responds with the hospital offering the lower price.

Key observation: This is a strong example of co-referencing, where the agent correctly interprets the user's use of "them" based on prior context. It also demonstrates the use of memory to retain and build on prior context—both key aspects of agentic behaviour.

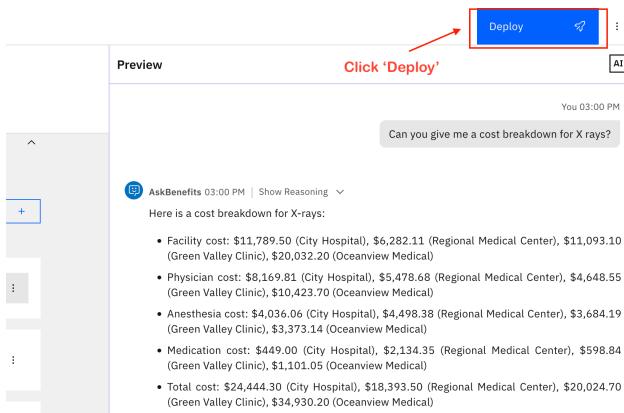
Prompt 3: *Am I eligible to add my spouse to my health insurance?*

Expected outcome: The agent confirms that spouses are eligible dependents and advises the employee to provide supporting documents during enrolment.

Key observation: The agent intelligently processes the document, identifies the relevant section on dependent coverage, and retrieves a precise answer—demonstrating context-aware document parsing and retrieval.

Step 5: Deploy the agent

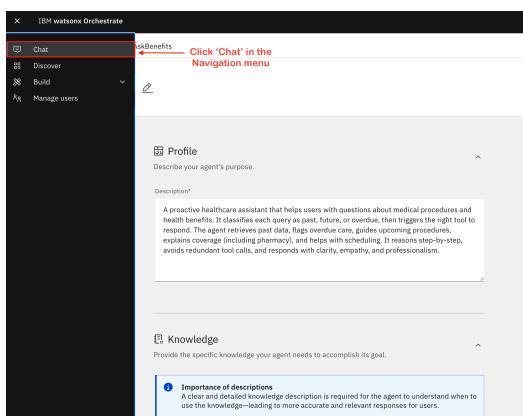
- Click “Deploy” to publish your AskBenefits agent



- Congratulations! You successfully deployed the AskBenefits Agent.

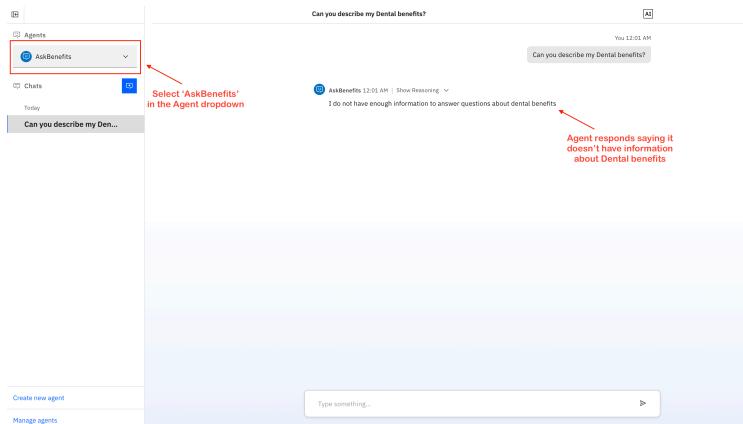
Step 6: Identify knowledge gap

- Click on ‘Chat’ in the Navigation menu



- Select the ‘AskBenefits’ agent in the Agent dropdown and enter the below prompt in the ‘Type something...’ field. Then press ‘Enter’

Prompt: *Can you describe my Dental benefits?*



Agent response: *I do not have enough information to answer questions about dental benefits.*

- Let’s now take a look at how the above information can be retrieved from the AskBenefits agent. A collaborator agent is used by AskBenefits to retrieve answers related to dental benefits.

Activity 2: Adding a collaborator AskDental agent

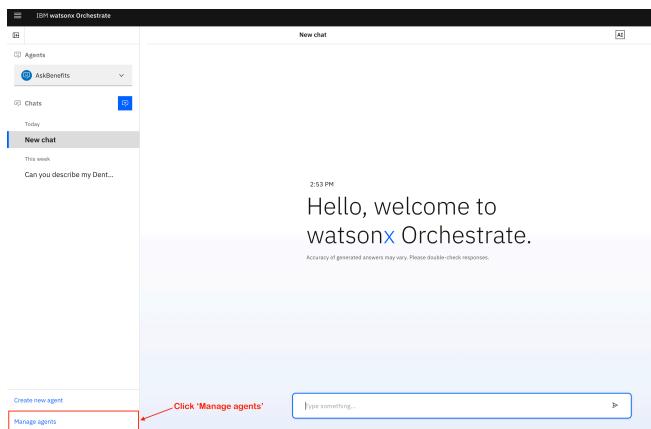
To save time and streamline the experience, we’ve already built a second expert agent called AskDental, which is equipped with knowledge related to dental benefits. A collaborator agent is used by AskBenefits to retrieve answers for dental related queries.

Note: If you can’t find this agent in the wxo following the below steps, please notify the facilitator – AskDental might have been accidentally removed and facilitator will need to add the AskDental back.

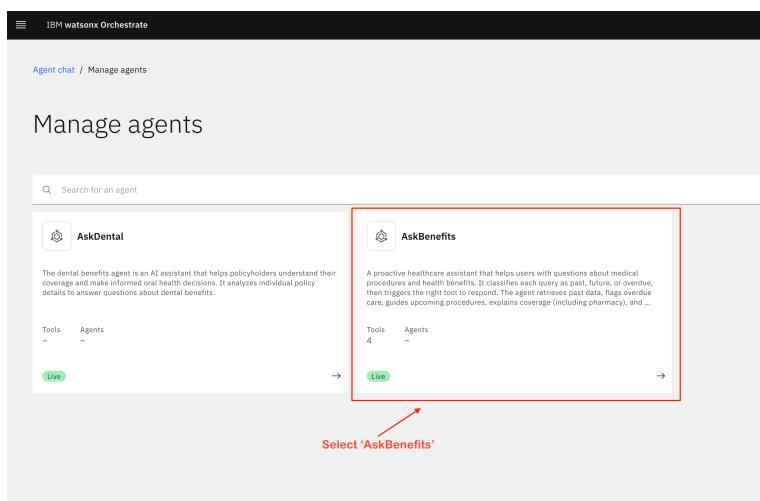
Step-by-step instructions:

Step 1: Add AskDental agent as a collaborator

- Click ‘Manage agents’



- Select ‘AskBenefits’



- Click ‘Add agent’ under the ‘Toolset’ tab

The screenshot shows the 'AskBenefits' toolset page in the IBM Watsonx Orchestrate interface. The 'Toolset' section is highlighted with a red box. Below it, the 'Agents' section is shown with a message: 'Start by adding an agent'. A red arrow points to the 'Add agent' button.

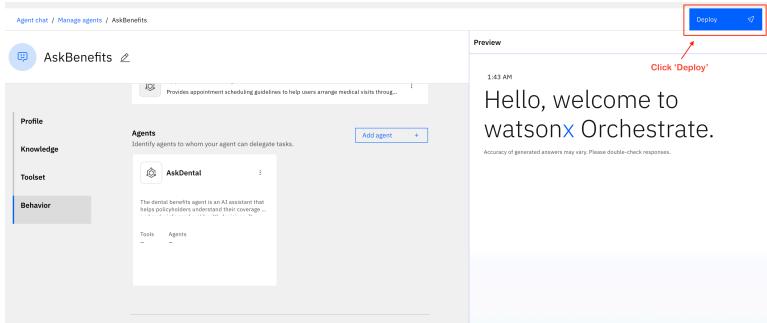
- Click 'Add from local instance'

The screenshot shows the 'Add a new agent' dialog box. It has three options: 'Add from catalog', 'Add from local instance', and 'Import'. A red box highlights the 'Add from local instance' option, and a red arrow points to the instruction 'Click 'Add from local instance''. The background shows the 'AskBenefits' toolset page.

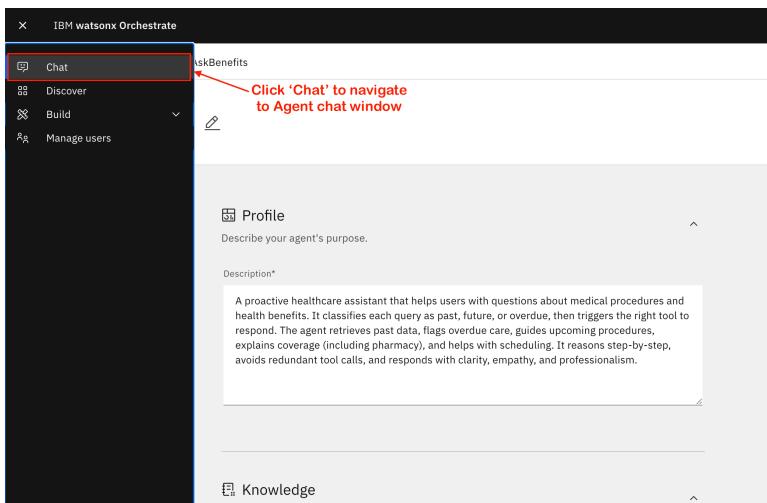
- Select 'AskDental' agent and then click 'Add to agent'

The screenshot shows the 'Add agents to 'AskBenefits'' dialog box. It lists agents under 'Selected agents'. An 'AskDental' agent is selected, highlighted with a red box, and a red arrow points to the instruction 'Select 'AskDental' Agent'. Another red arrow points to the 'Add to agent' button at the bottom right.

- Click 'Deploy'



- Click 'Chat' to navigate to the Agent chat screen



Activity 3: Test different scenarios

After successful deployment, select the 'AskBenefits' agent in the Agent dropdown and test the same prompt to verify how the collaborator agent added to AskBenefits helps in answering dental related queries

Prompt: *Can you describe my dental benefits?*

Expected outcome: The AskBenefits agent routes the query to the AskDental agent, which responds with a detailed summary of dental benefits including deductible, coverage, and plan-specific details—retrieved from the uploaded dental policy document.

Key observation: The AskBenefits agent correctly routes the dental benefits query to the AskDental agent, which retrieves a detailed response from its underlying document—demonstrating effective agent collaboration and document-grounded reasoning.

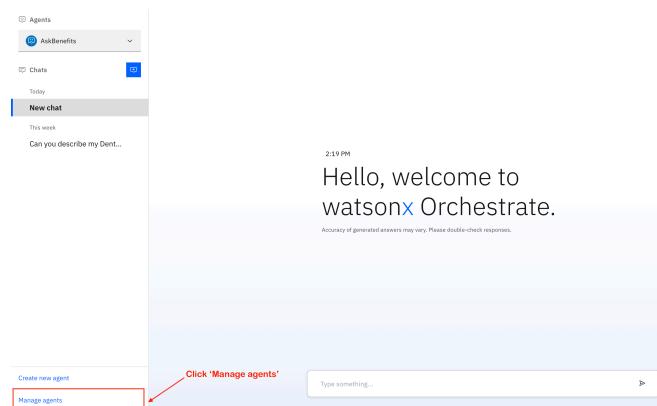
Try some more prompts:

1. *What procedures have we had at City Hospital in the last year?*
 2. *Show some appointment slots available for dental checkup?*
 3. *Can you show the available slots on weekends instead?*
 4. *Book an appointment for <enter an available slot>*
 5. *List my upcoming appointments*
 6. *Give me summary of my insurance plan.*
-

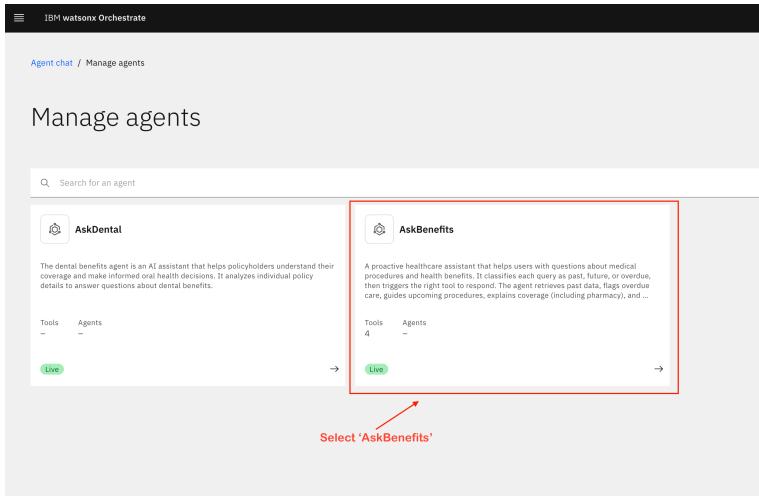
Reset/clean-up instructions

Before wrapping up the session, please follow these steps to clean up the instance so it's ready for the next participant.

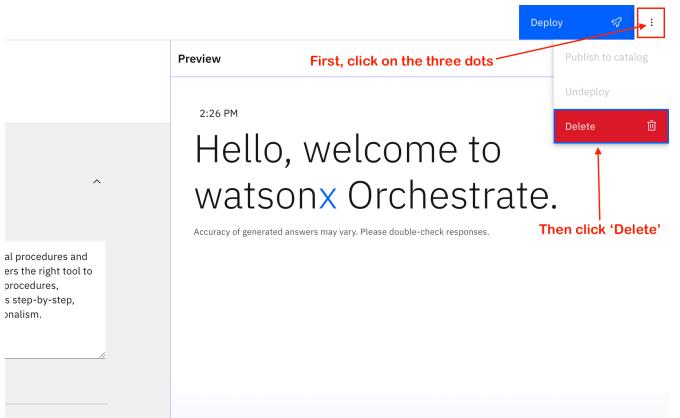
- Click ‘Manage Agents’ button in the left bottom corner



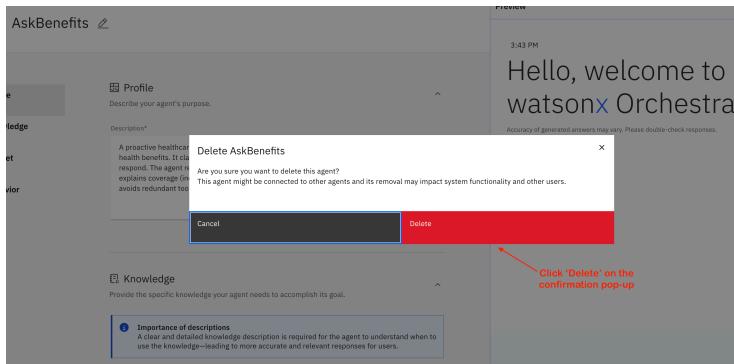
- Click the ‘AskBenefits’ agent you added



- Click the three dots on top-right and then click ‘Delete’



- Confirm the deletion when prompted



!!! Important: Do not delete the *AskDental* Agent