Insurance Agent: Automate customers insurance queries with Agentic AI

Learning Objective

Time Required : 30 Mins

You will gain hands-on knowledge and practical skills to design, deploy, and interact with AI agents tailored for insurance domain workflows using Watsonx Orchestrate and Watsonx Assistant. Specifically, you will be able to:

- ✓ Design and deploy AI agents using Watsonx Orchestrate that can automate insurance-specific tasks such as policy lookup, claim status retrieval, and personalized product recommendations.
- ✓ Integrate custom tools (APIs or data sources) into your agent workflows to enable real-time interaction with customer data, documents, and business rules.
- ✓ Use the built-in chat interface in Watsonx Assistant to create a conversational experience that can understand natural language and respond with answers derived from your own uploaded documents, enabling chat-with-your-docs capability.
- ✓ Leverage Watsonx's low-code environment to orchestrate complex agent behaviors without needing deep programming expertise.
- ✓ Apply these techniques to real-world insurance use cases, improving customer engagement, reducing operational load, and enhancing decision-making using intelligent automation.

The Problem

FinSure Insurance is aiming to enhance customer satisfaction and improve cross-selling of insurance products by modernizing their customer service operations. However, their team of human insurance agents faces challenges in providing timely, consistent, and personalized support to policyholders.

The customer support process is largely manual, requiring agents to search through multiple systems to retrieve policy details, claims history, and product options. Customers often reach out with questions about their coverage, premium schedules, or claim status, and resolving these queries typically involves navigating siloed internal tools and reading through complex policy documents. In addition, agents struggle to proactively recommend relevant insurance products or add-ons, as it requires them to analyze historical customer data, risk profiles, and product offerings—often under time pressure.

To summarize, some of the challenges faced by insurance agents at **FinSure** Insurance include:

- **Manual processes and fragmented systems** result in long turnaround times for responding to customer queries.
- **Difficulty in accessing and summarizing policy and claims data** hinders agents' ability to provide clear, contextual answers.
- **Lack of proactive, data-driven product recommendations** limits opportunities for upselling or cross-selling tailored insurance plans.
- **Inconsistent customer experiences** due to varying levels of agent expertise and access to information.

An intelligent, autonomous **Insurance Agent Assistant** equipped with purpose-built tools such as policy lookup, claims history retrieval, and personalized recommendation engines could significantly streamline and elevate this process—offering real-time, personalized, and efficient customer support without the delays of manual intervention.

Objective

Finsure Insurance plans to implement an AI-powered **Insurance Agent Assistant** to support their team of insurance agents in delivering faster, more personalized, and efficient customer service. The goal is to create an AI-powered agentic solution that assists insurance agents in executing the following tasks:

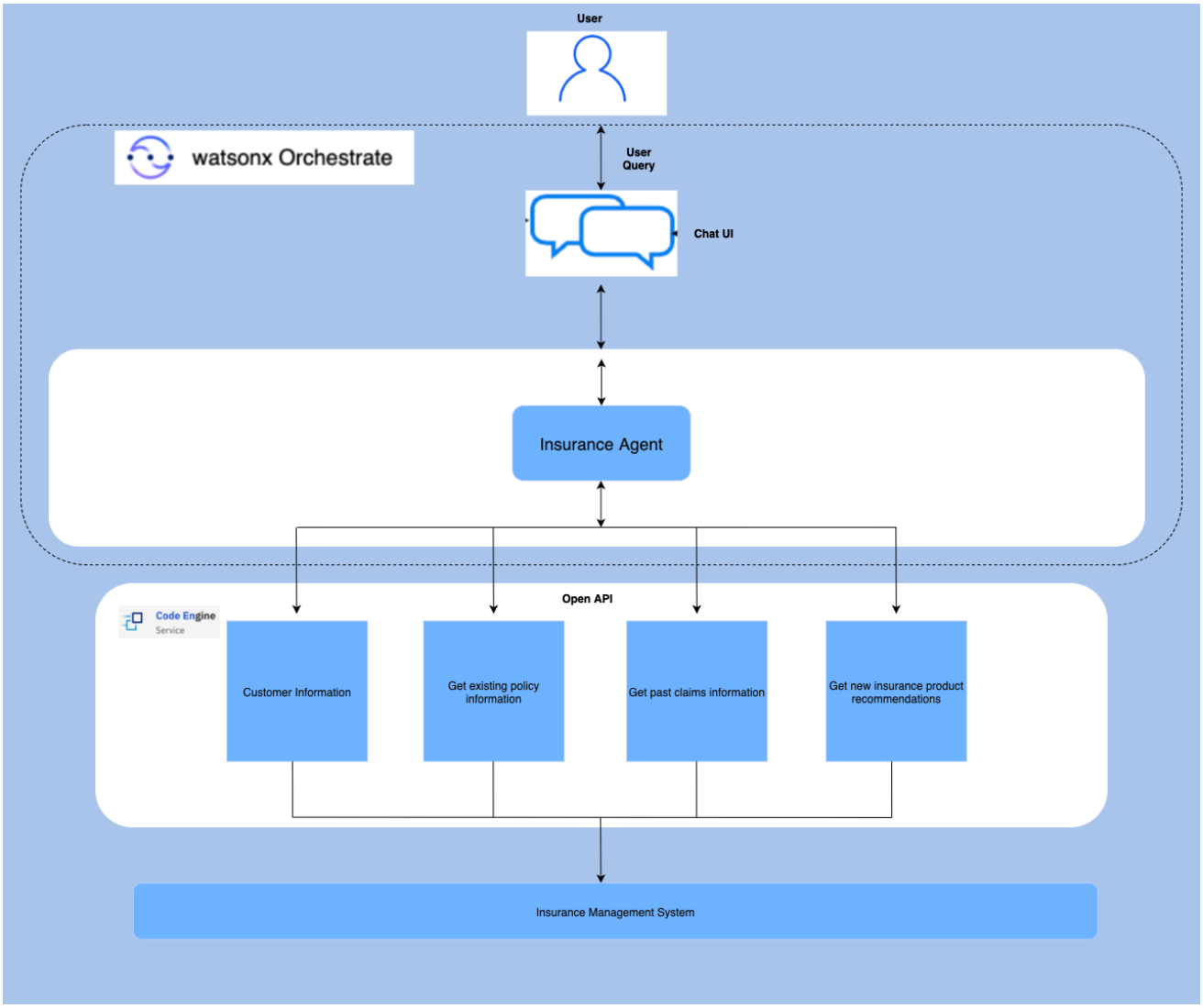
- Retrieve and summarize key details from customer insurance policies, including coverage, premiums, and terms.
- Provide a consolidated view of a customer's past and current claims, including status, reimbursement history, and reasons for approval or rejection.
- Perform intelligent search over public and internal data sources to surface relevant updates, policy changes, or regulatory shifts.
- Leverage recommendation engines to suggest suitable policy upgrades, add-on riders, or bundled insurance products based on customer profiles and history.
- Generate a contextual summary or response tailored to customer queries in real time.

By automating these tasks, the company aims to reduce agent workload, improve response times, and deliver a more consistent and personalized customer experience at scale.

Business Value

- **Significant reduction in operational overhead** by minimizing time spent on manual policy and claims research.
- **Instant, automated access to up-to-date customer and policy data**, enabling faster and more accurate service delivery.
- **Smarter product recommendations** driven by AI, improving customer satisfaction and increasing revenue opportunities through targeted upselling.

Architecture



Pre-requisites

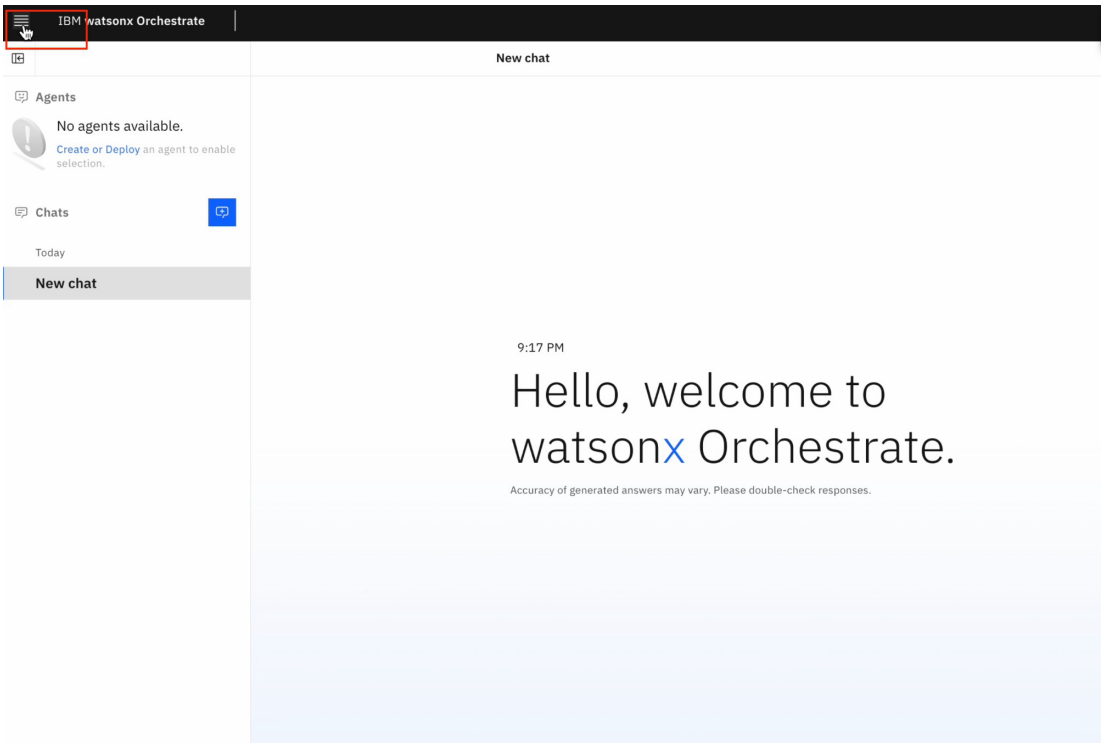
- Check with your instructor to make sure **all systems** are up and running before you continue.
- Validate that you have access to the right techzone environment for this lab.
- Validate that you have access to a credentials file that you instructor will share with you before starting the labs.

Accessing Your Watsonx Orchestrate Instance

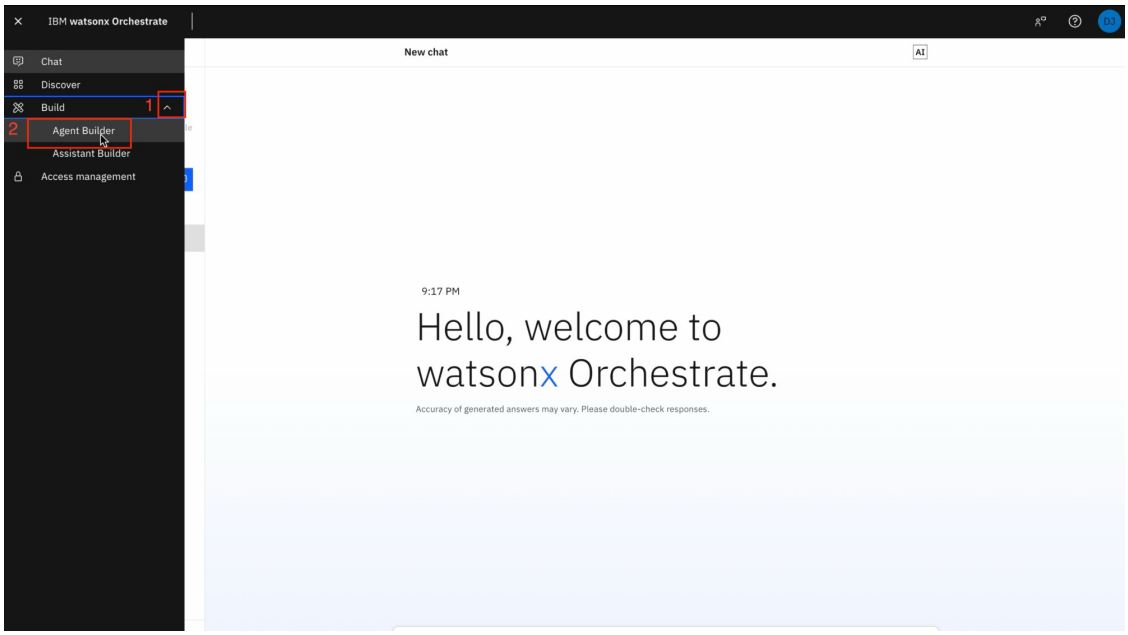
→ A TechZone environment has been reserved for you, and you will receive the access details via email.
→ To access your Watsonx Orchestrate instance**, please check with your instructor** for the access link and the necessary steps.

Step by step instructions to build the Insurance Agent:

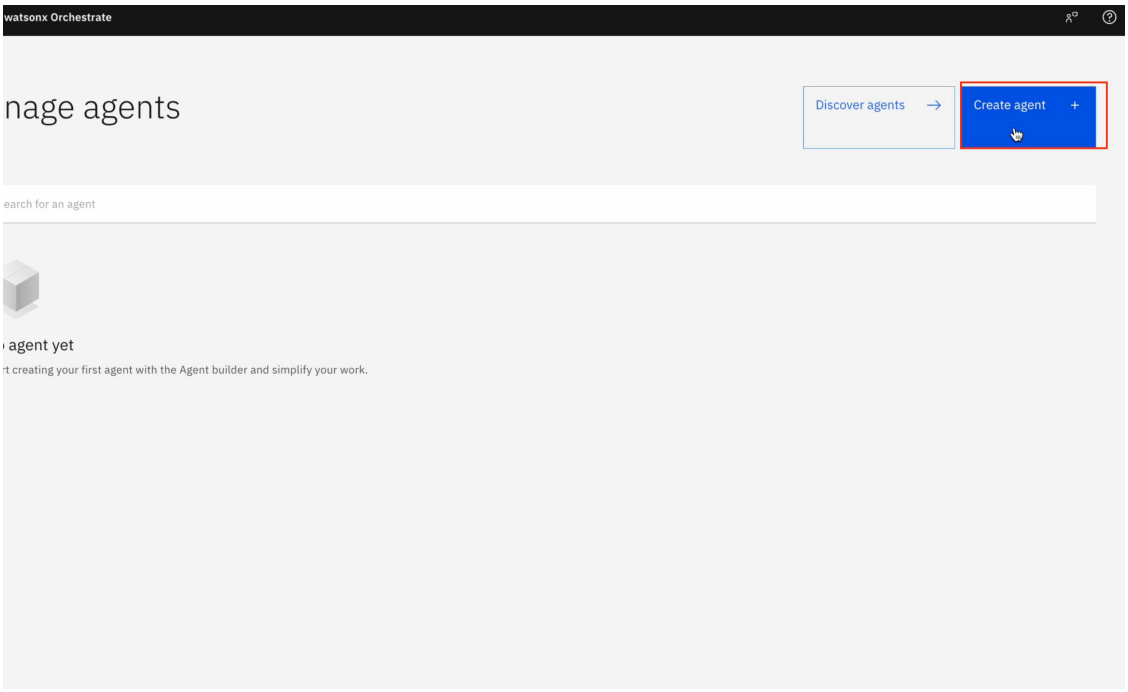
1. When you launch watsonx Orchestrate, you'll be directed to this page. Click on the hamburger menu in the top left corner:



2. Click on the down arrow next to **Build**. Then click on **Agent Builder**:



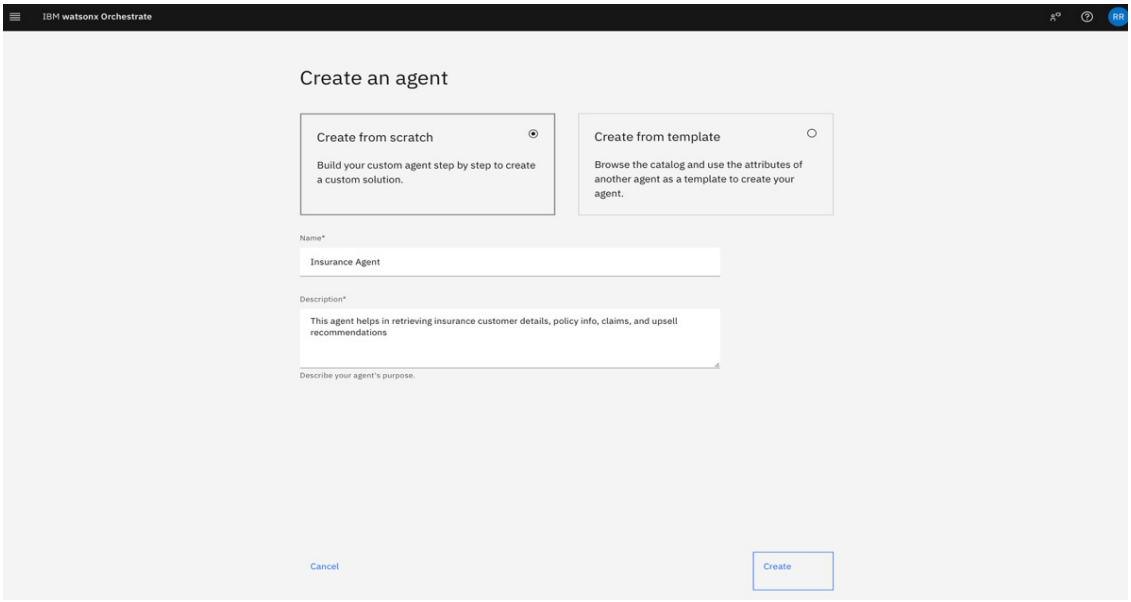
3. Click on **Create agent +**:



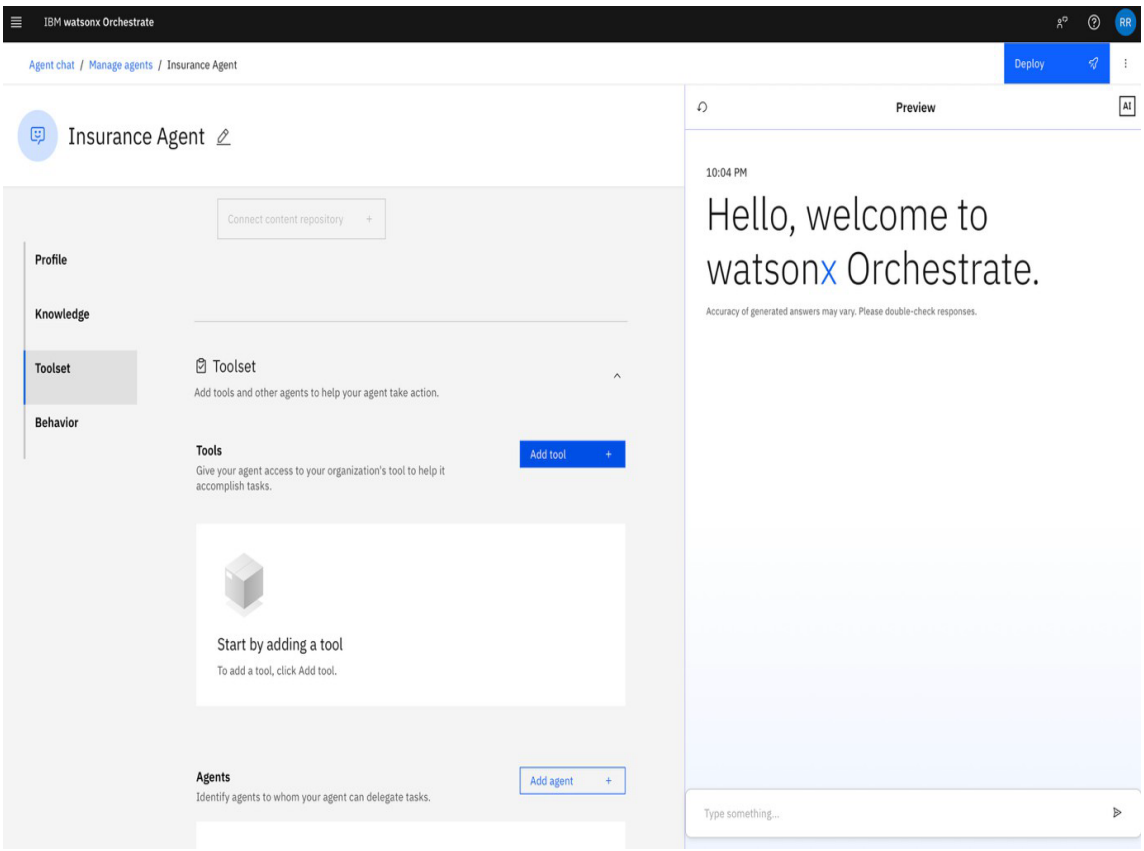
4. Select "Create from scratch", give your agent a name, e.g. "Insurance Agent", and fill in the description as shown below:

This agent helps in retrieving insurance customer details, policy info, claims, and upsell recommendations

Click on **Create**



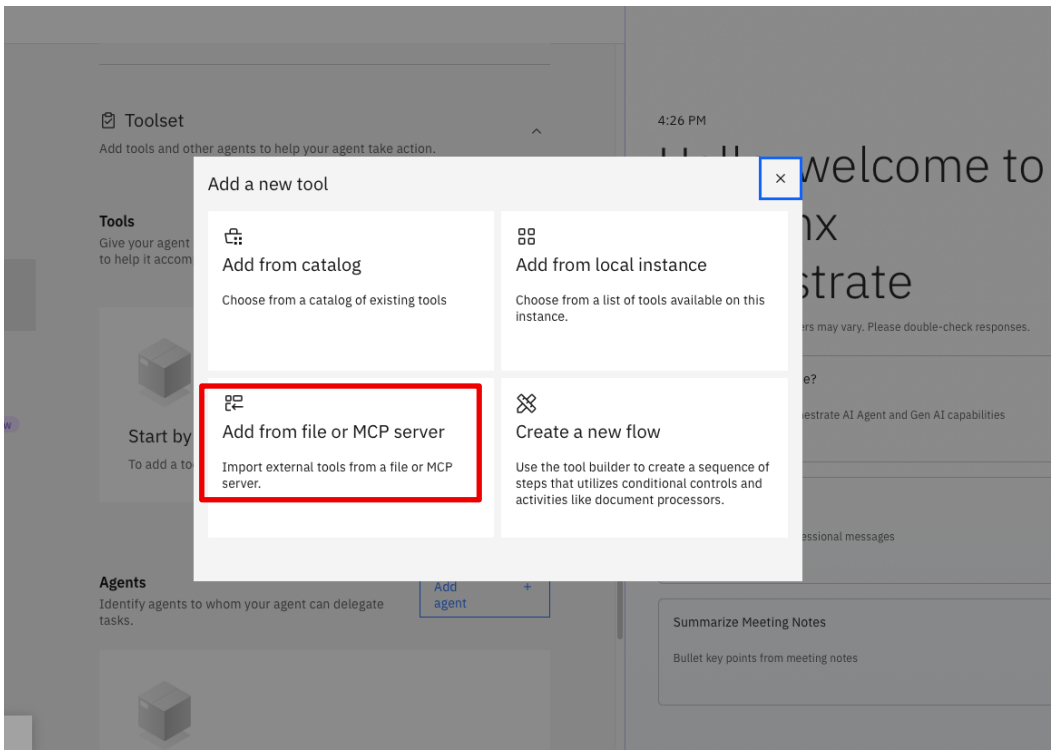
5. Scroll down to the Toolset section. Click on Add tool +:



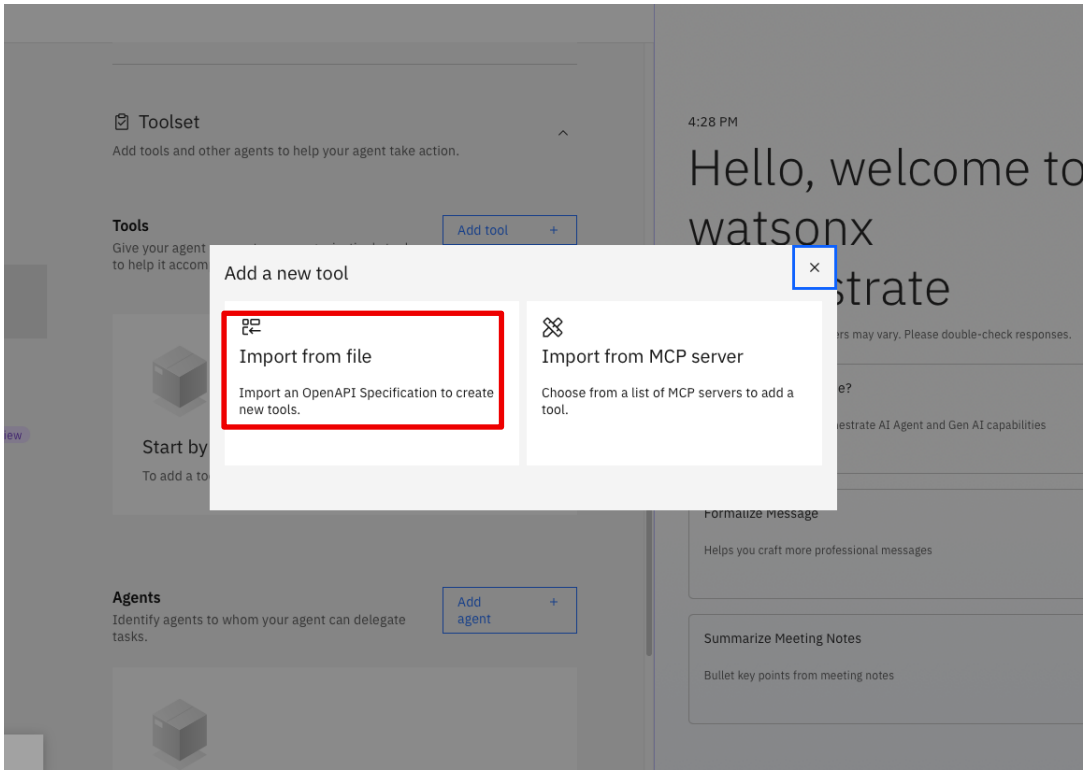
What happens behind the scene?

We have developed a backend FastAPI application containing custom tools for various insurance-related use cases and deployed it on IBM Code Engine. An OpenAPI specification (YAML file) has been generated for this application, with the deployed Code Engine URL included. To make these tools available to your AI agents, you simply need to upload the OpenAPI spec file into Watsonx Orchestrate—no additional configuration required.

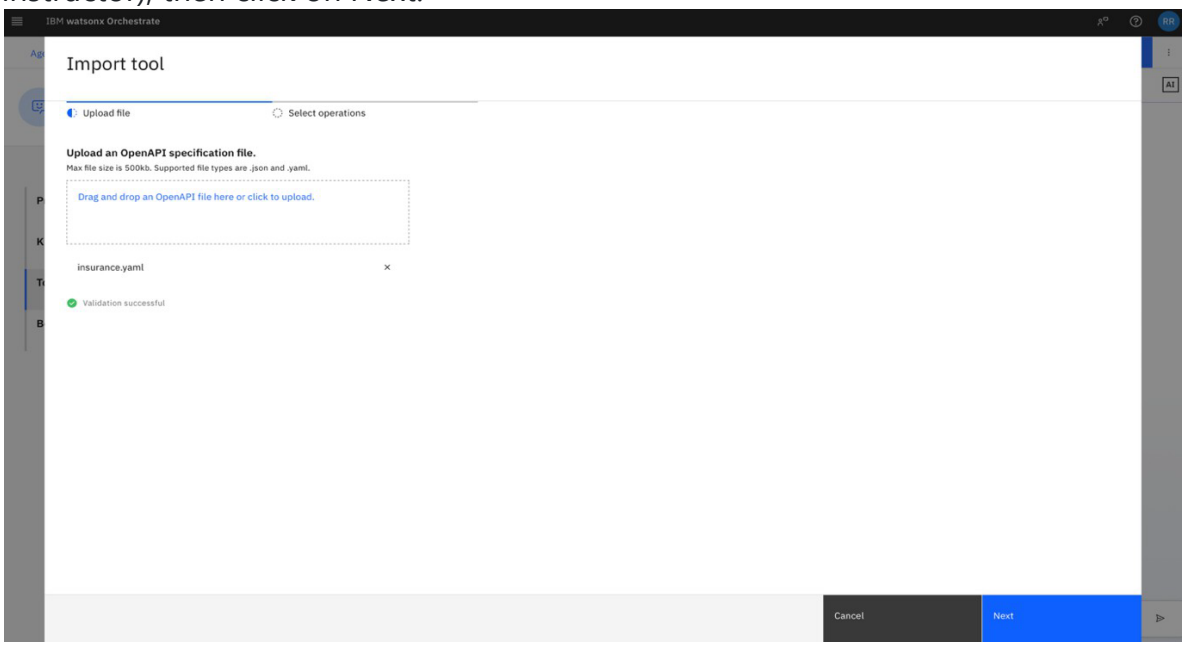
6. Select Add from file or MCP Server:



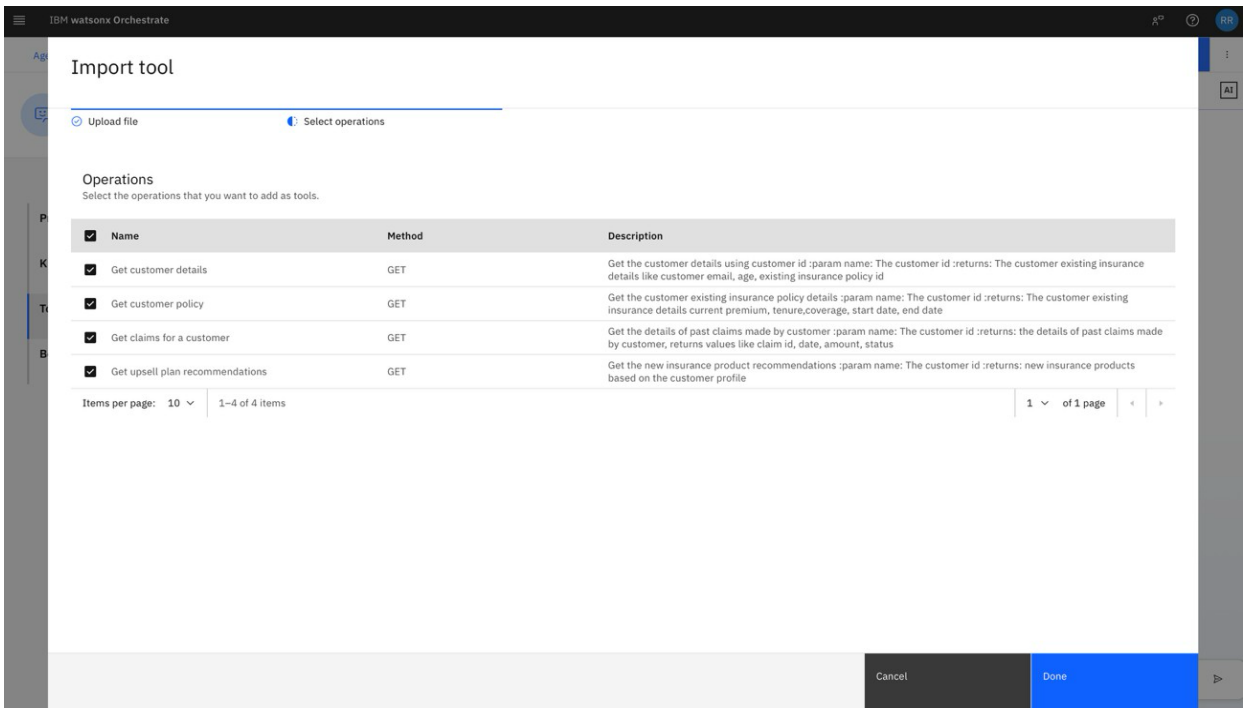
7. Select “Import from File” :



8. Drag and drop or click to upload the insurance.yaml file (provided to you by the instructor), then click on Next:

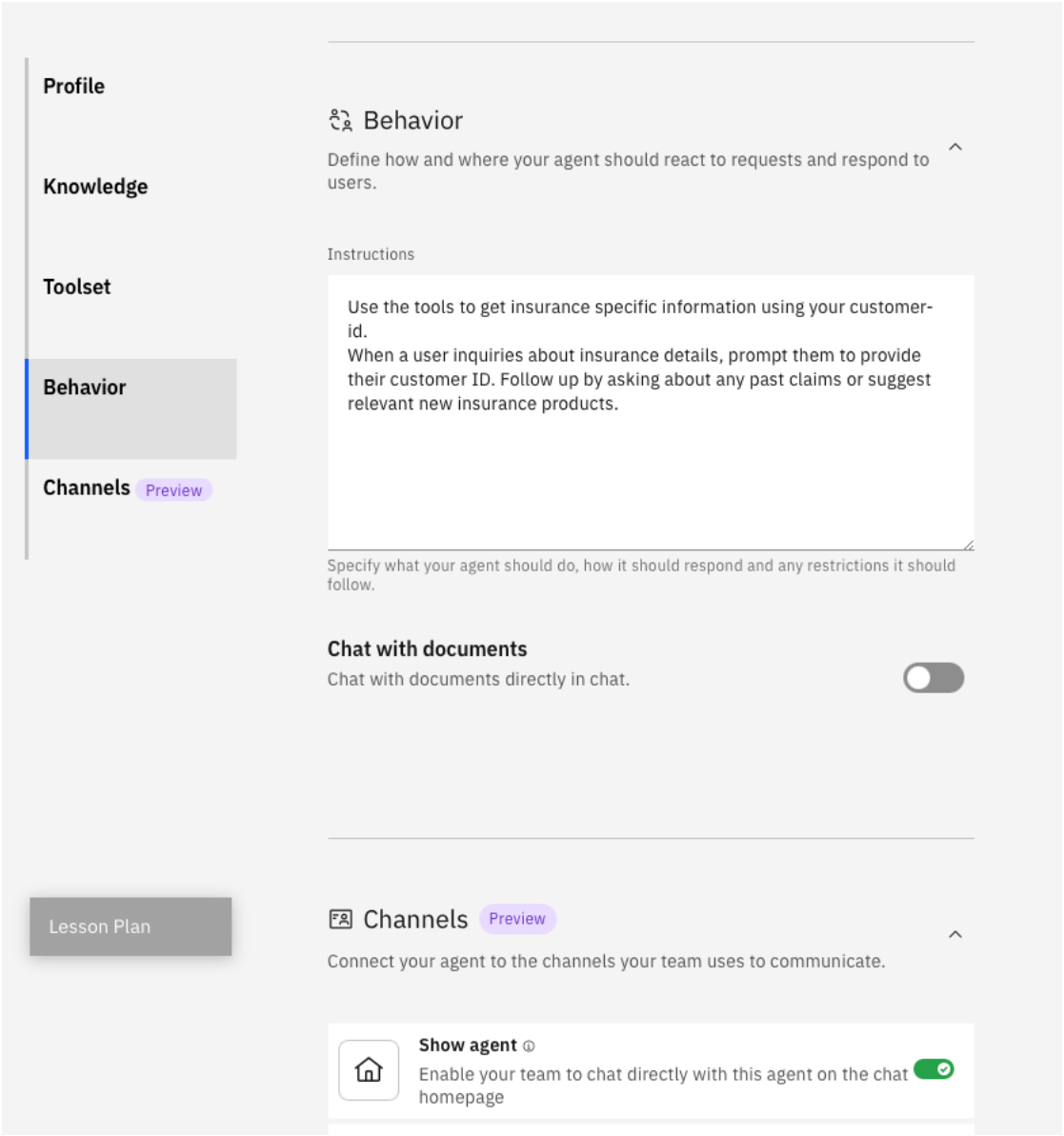


9. Select all the operations and click on Done:



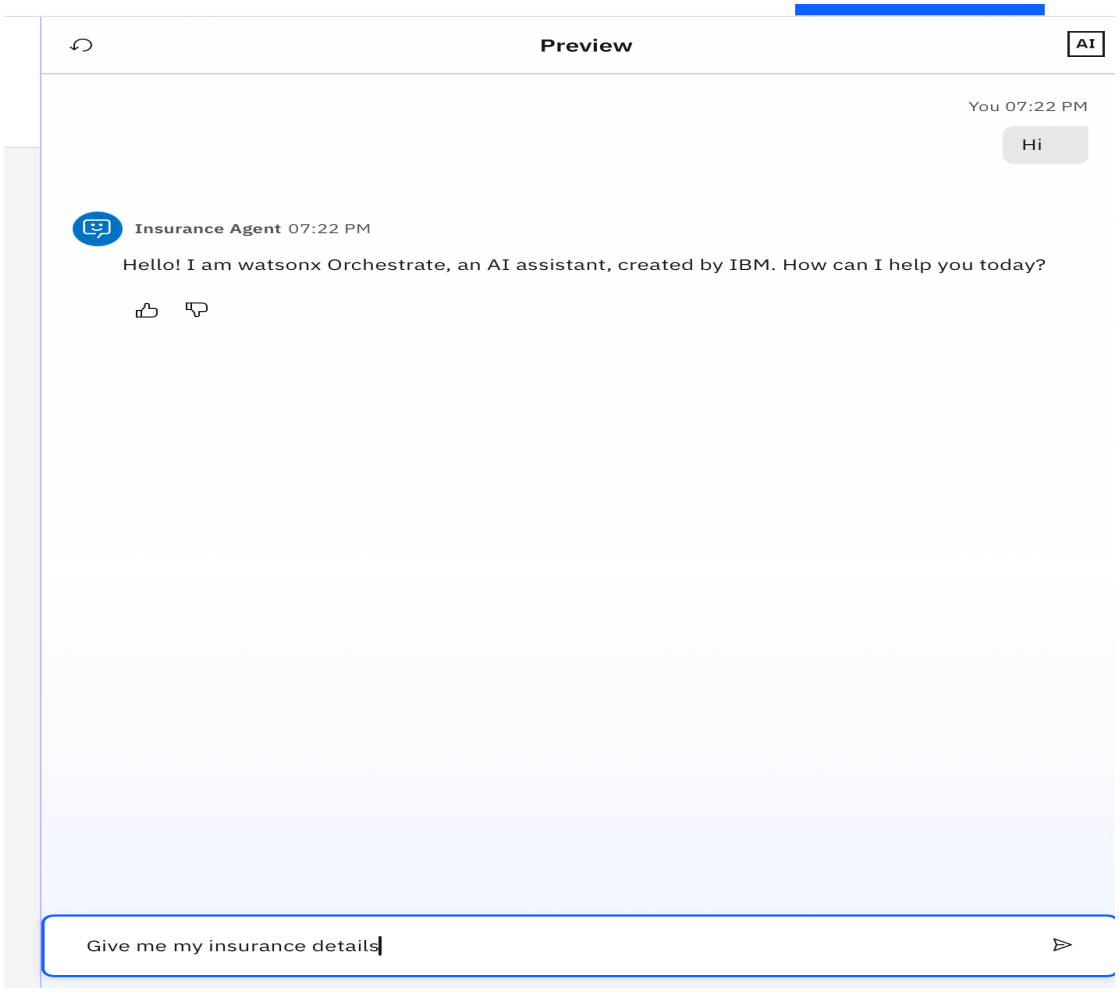
10. Scroll down to the Behavior section. Insert the instructions below into the Instructions field:

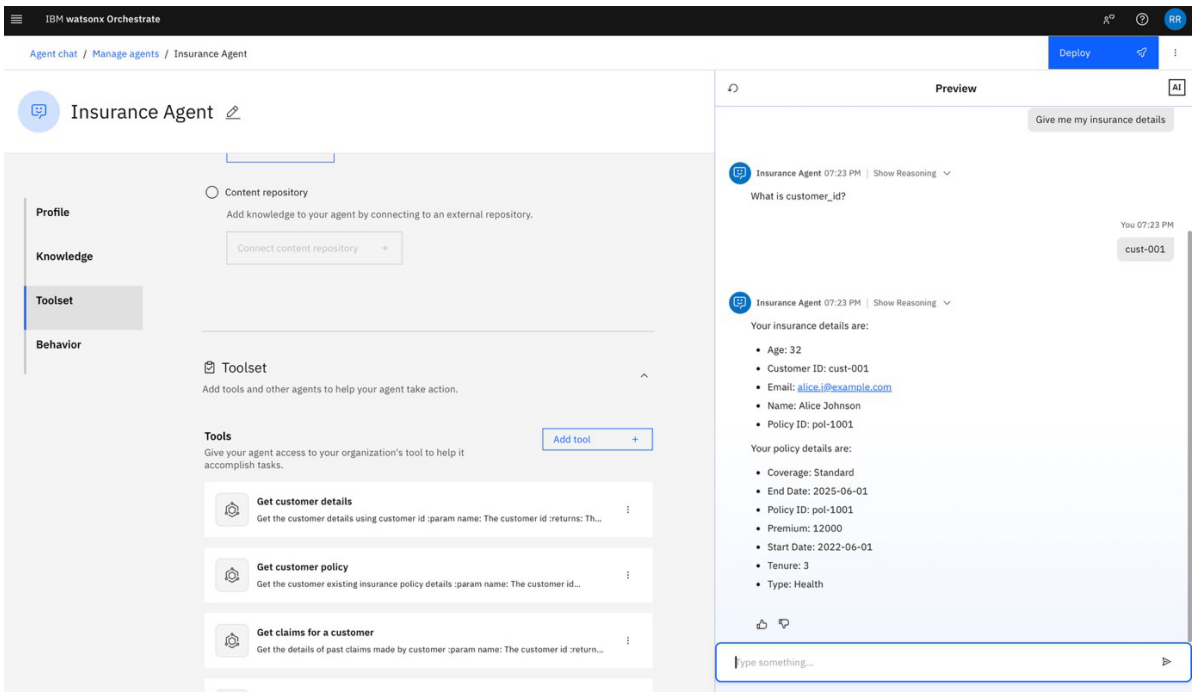
Use the tools to get insurance specific information using your customer-id. When a user inquiries about insurance details, prompt them to provide their customer ID. Follow up by asking about any past claims or suggest relevant new insurance products.

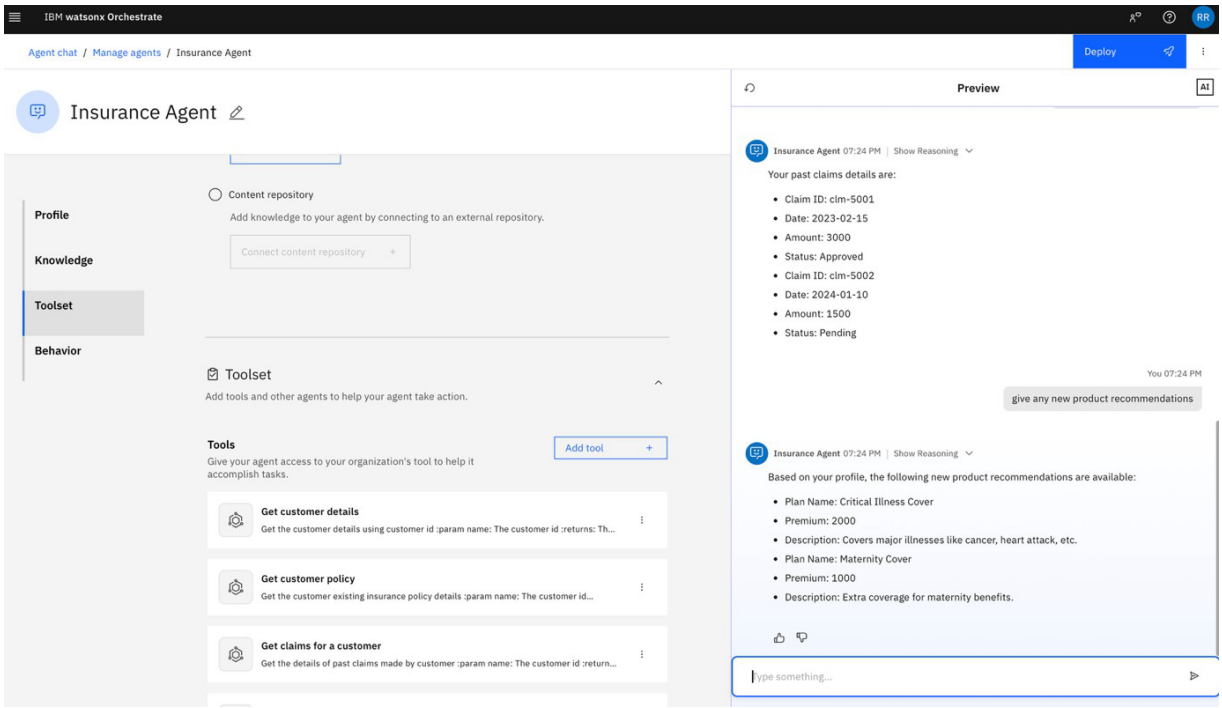


11. Test your agent in the preview chat on the right side by asking the following questions and validating the responses. They should look similar to what is shown in the screenshots below:

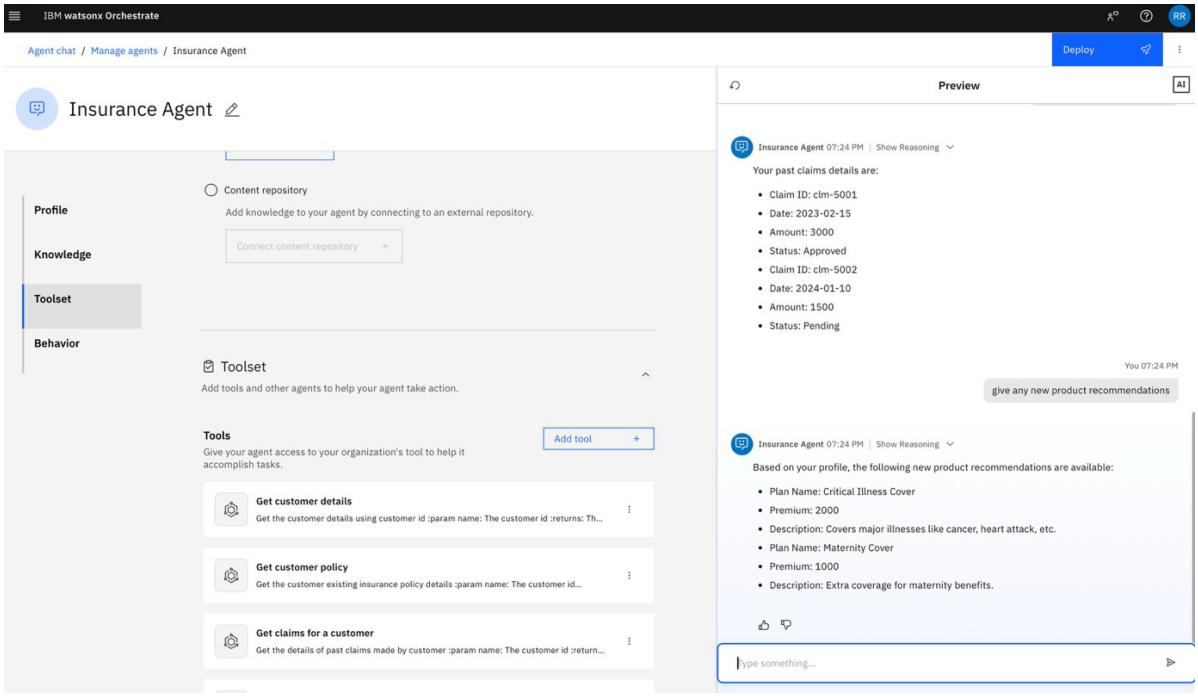
1. Give my insurance details ? 2. Enter customer-id cust-001 when the agent prompts for customer id from the user 3. Give details of my past claims. 4. Recommend any new insurance plan?


Preview
AI
You 07:22 PM
Hi
Insurance Agent 07:22 PM
Hello! I am watsonx Orchestrate, an AI assistant, created by IBM. How can I help you today?
Give me my insurance details

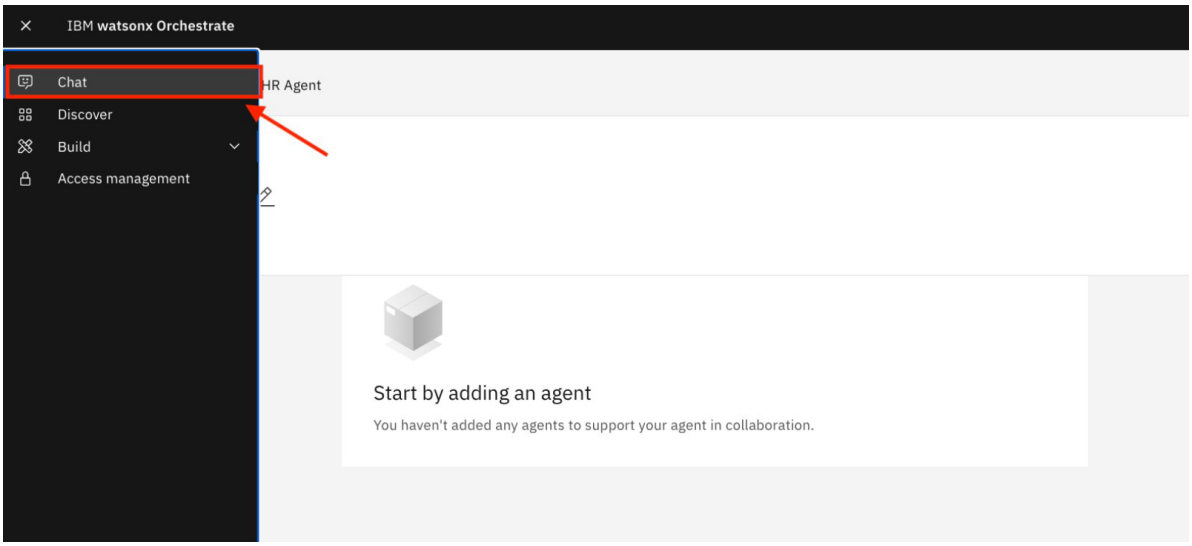

IBM watsonx Orchestrate
Agent chat / Manage agents / Insurance Agent
Deploy
Insurance Agent
Profile
Knowledge
Toolset
Behavior
Content repository
Add knowledge to your agent by connecting to an external repository.
Connect content repository
Toolset
Add tools and other agents to help your agent take action.
Tools
Give your agent access to your organization's tool to help it accomplish tasks.
Add tool
Get customer details
Get the customer details using customer id :param name: The customer id :returns: Th...
Get customer policy
Get the customer existing insurance policy details :param name: The customer id...
Get claims for a customer
Get the details of past claims made by customer :param name: The customer id :return...
Preview
Give me my insurance details
Insurance Agent 07:23 PM | Show Reasoning
What is customer_id?
You 07:23 PM
cust-001
Insurance Agent 07:23 PM | Show Reasoning
Your insurance details are:
Age: 32
Customer ID: cust-001
Email: alice.j@example.com
Name: Alice Johnson
Policy ID: pol-1001
Your policy details are:
Coverage: Standard
End Date: 2025-06-01
Policy ID: pol-1001
Premium: 12000
Start Date: 2022-06-01
Tenure: 3
Type: Health
Type something...



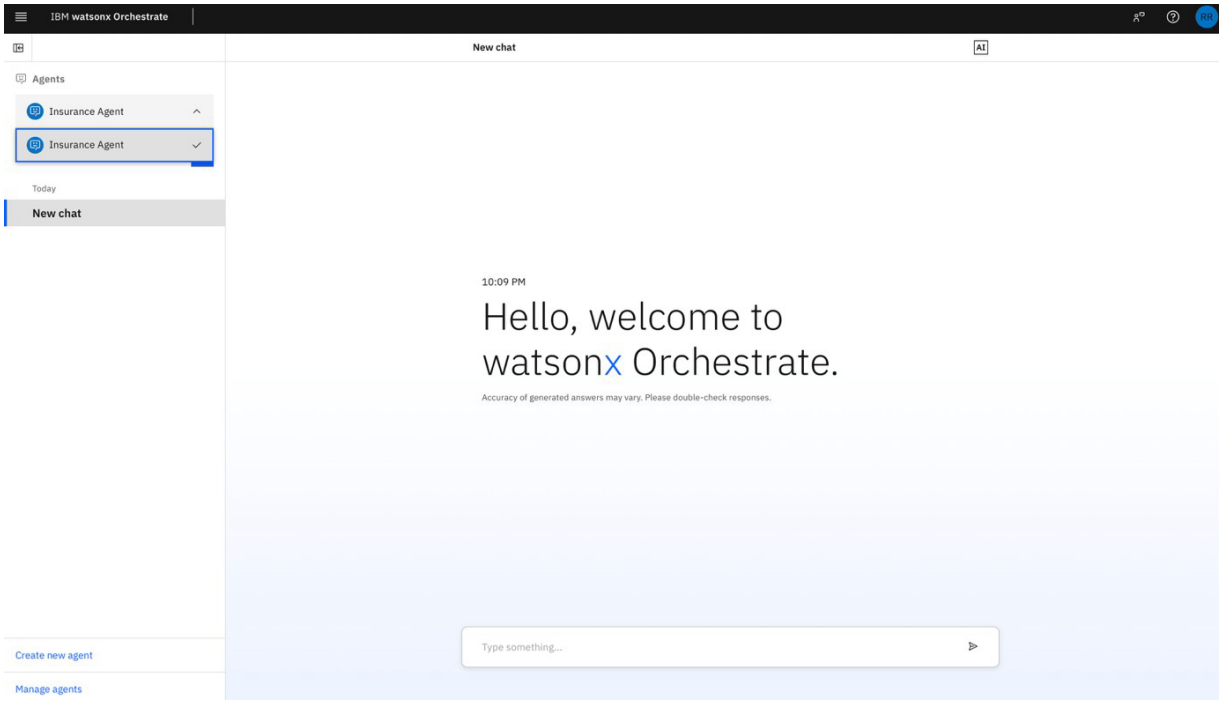
12. Once you have validated the answers, click on **Deploy** in the top right corner to deploy your agent:



13. Click on the hamburger menu in the top left corner and then click on **Chat**:



14. Make sure **Insurance Agent** is selected. You can now test your agent:



That’s a wrap on today’s learning!