sislam1 ▼

Mastering AI Agents: Building Production-Ready Applications ‹

AgentCore ↗

AgentCore Documentation ↗

▼ **AWS account access**

Open AWS console (us-west-2) ⧉

Get AWS CLI credentials

Exit event

Event dashboard › Getting started with Amazon Bedrock AgentCore

Getting started with Amazon Bedrock AgentCore

Welcome to the comprehensive workshop on Amazon Bedrock AgentCore ↗, a fully managed service that enables you to deploy and operate highly capable AI agents securely at scale. AgentCore provides purpose-built infrastructure for dynamic agent workloads, powerful tools to enhance agent capabilities, and essential enterprise controls for production deployment.

In this hands-on workshop, you'll build a **Customer Support Agent** that demonstrates the full spectrum of AgentCore capabilities - from basic conversational AI to enterprise-grade deployment with memory, security, and observability.

What We're Building

In this workshop, you'll build a **comprehensive, production-ready Customer Support Agent** that demonstrates the full power of Amazon Bedrock AgentCore. This isn't just a simple chatbot - it's a sophisticated AI system that can handle complex customer service workflows, integrate with multiple enterprise systems, and scale to serve thousands of customers simultaneously.

Business Scenario

You work for **TechCorp**, an e-commerce company that receives hundreds of customer support requests daily.

Customers contact support for various reasons:

- **Product Information**: Getting specifications, pricing, and availability details
- **Policy Questions**: Understanding return policies, shipping costs, and business hours

Currently, your support team spends significant time on repetitive tasks, leading to longer wait times and higher operational costs.

You need an AI solution that can handle routine inquiries while escalating complex cases to human agents.

Architecture Overview

Our customer support agent represents a real-world enterprise application that showcases all AgentCore capabilities while leveraging the complete Amazon Bedrock AgentCore ecosystem in an integrated architecture.
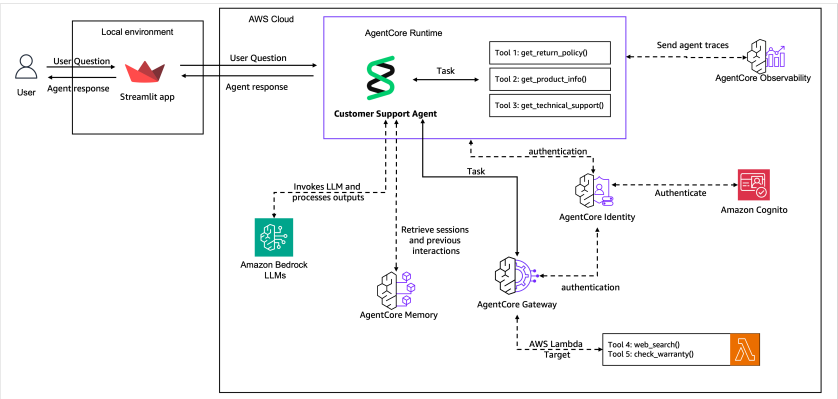
Ready to Begin?

> ⓘ **New to AgentCore?** Start with the Amazon Bedrock AgentCore Fundamentals to understand the concepts and architecture before diving into the labs.

→ **Amazon Bedrock AgentCore Fundamentals** (Optional)

→ **Lab 1: Create Your First Strands Agent**

Workshop Structure

This workshop follows an **incremental enhancement approach**, where each lab builds upon the previous one:

Lab	Focus	Duration	What You'll Learn
Lab 1: Create the Agent Prototype	Foundation	10-15 min	Build foundational customer support agent prototype with local tools

Lab	Focus	Duration	What You'll Learn
Lab 2: Enhance your Agent with Memory	Customer Context	15-20 min	Enable personalized conversations with persistent customer memory
Lab 3: Scale with Gateway and Identity	Enterprise APIs	15-20 min	Connect to real customer data through AgentCore Gateway
Lab 4: Deploy the Agent to production with Observability	Production Scale	15-20 min	Deploy agent to AgentCore Runtime for enterprise workloads
Lab 5: Build a Customer-Facing Frontend Application	Production Monitoring	15-20 min	Add monitoring, debugging, and compliance for production agents
Lab 6: Clean up	Clean up	15-20 min	Cleaning of resources created in the workshop

Total Workshop Time: ~1-2 hours

By completing this workshop, you will master building and operating production-ready AI agents using Amazon Bedrock AgentCore to handle complex enterprise requirements.

Next