

Course description

In this course, you'll explore the core principles and strategies for designing agentic AI systems using AWS services. You'll learn how agentic AI differs from traditional conversational systems. You'll also discover how to use tools like Amazon Q Developer, Amazon Quick Suite, Kiro, Strands Agents SDK, and Amazon Bedrock AgentCore to build autonomous, goal-driven solutions that solve real-world problems.

• Course level: Fundamental
• Duration: 1 day

Activities

This course includes presentations, hands-on labs, and group exercises.

Course objectives

In this course, you will learn to:

- Summarize the evolution of agentic AI and define what makes something agentic
- Identify core components of agentic systems
- Distinguish between workflow, autonomous, and hybrid agents
- Identify basic implementation patterns for agentic AI
- Compare AWS service options for agentic AI

- Describe capabilities and use cases of Amazon Quick Suite, Amazon Q Developer, and Kiro
- Explain Strands Agents framework and its applications
- Build and customize a basic AI agent using Strands Agents SDK
- Develop a simple task-specific agent for real-world application using Strands Agents SDK
- Explain Amazon Bedrock AgentCore
- Describe observability and interoperability patterns for production agentic AI systems

Intended audience

This course is intended for:

- Software developers new to agentic AI seeking foundational knowledge
- Technical professionals exploring AI capabilities and interested in core components and applications of agentic AI
- Development teams evaluating agentic AI solutions and needing to differentiate between agent types
- AWS Users expanding into agentic AI, including current users of Amazon Q Developer, Amazon Quick Suite, and Amazon Bedrock AgentCore

Prerequisites

We recommend that attendees of this course have:

- Generative AI Essentials or equivalent work experience
- Basic AWS knowledge and software development experience

Course outline

Module 1: From LLMs to Agents

- Limitations of Large Language Models (LLMs)
- Innovations powering agents
- Evolution from LLMs to agentic AI systems

Module 2: Exploring Agentic AI

- Understanding agentic AI
- Types of AI agents
- Agentic AI applications

Module 3: Understanding Agentic AI Workflows

- Workflow patterns
- Amazon Bedrock flows overview

Module 4: AWS Agentic Development and Productivity Tools

- AWS agentic AI solutions
- Amazon Quick Suite • Amazon Q Developer
- Hands-on lab: Accelerating software development using Amazon Q Developer
- Kiro: AI-powered integrated development environment (IDE) with spec-driven development

Module 5: Implementing agentic AI Frameworks with Amazon Bedrock AgentCore

- Agentic AI frameworks
- Hands-on lab: Getting started with Strands Agents
- Amazon Bedrock AgentCore

Module 6: Building Custom Solutions

- Customizing agentic infrastructure
- Observability and monitoring
- Agent interoperability

Module 7: Course Wrap-up

- Next steps and additional resources
- Course summary

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Your course overview ends here.

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About CloudThat

Established in 2012, CloudThat is an award-winning company and the first in India to offer cloud training and consulting services for individuals and enterprises worldwide. Recently, it won Google Cloud's New Training Partner of the Year Award for 2025, becoming the first company in the world in 2025 to hold awards from all three major cloud giants: AWS, Microsoft, and Google. CloudThat notably won consecutive AWS Training Partner of the Year (APJ) awards in 2023 and 2024 and the Microsoft Training Services Partner of the Year Award in 2024, bringing its total award count to an impressive 12 awards in the last 8 years.

CloudThat specializes in Cloud Migration, Data Platforms, DevOps, IoT, and cutting-edge technologies like Gen AI & AI/ML. As a Microsoft Solutions Partner, AWS Premier Tier Training Partner, Google Cloud Platform Partner, and collaborator with leading organizations like HPE, Oracle, Nvidia and Databricks, CloudThat has trained over 850,000 professionals across 600+ cloud certifications, empowering students and professionals worldwide to advance their skills and careers.

To know more about our cloud certification training, email at sales@cloudthat.com or call us at +91-8880002200 or +1-8555588830 for those from outside India.