Building Agentic AI with Amazon Bedrock AgentCore

Category: AI, Data & Analytics | **Vendor:** Amazon Web Services

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

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, and how to use tools like Strands Agents SDK, and Amazon Bedrock AgentCore to build autonomous, goal-driven solutions that solve real-world problems.

About This Course

Module 1: Foundations of Agentic AI Patterns

- Agent building blocks
- Amazon Bedrock AgentCore introduction

Module 2: AgentCore Runtime and Framework Integration

- Supported frameworks and implementation
- AgentCore Runtime overview
- Infrastructure and deployment

Module 3: Security and Identity Management

- Security and identity management
- Securing your agents with AgentCore Identity

Module 4: Tool Integration and AgentCore Gateway

- Amazon Bedrock AgentCore Policy
- Built-in tools and custom integration
- Model Context Protocol (MCP)
- AgentCore Gateway
- Implementing AgentCore Gateway
- Amazon Bedrock AgentCore Policy

Module 5: Agentic Memory Implementation

- Agentic memory core concepts
- AgentCore Memory
- Securing AgentCore Memory

Hands-on Lab: Enhance and Scale Agents with Amazon Bedrock AgentCore

Module 6: Production Monitoring and Observability

- Monitoring agents with AgentCore Observability
- Verifying agent performance with AgentCore Evaluation

Module 7: Course Wrap-up

- Next steps and additional resources
- Course summary

Who Should Attend

- Software developers seeking intermediate knowledge for building advanced agentic AI systems
- Technical professionals exploring AI capabilities and interested in building advanced agentic AI systems.
- Development teams building advanced agentic AI solutions.

Prerequisites & Entry Requirements

General Prerequisites:

We recommend that attendees of this course have:

Agentic AI Foundations (AAIF)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

In this course learners will:

- Define agentic AI characteristics and differentiate them from traditional AI systems.
- Identify the core agent components and their interactions.
- Describe how Bedrock AgentCore services support agentic AI.
- Deploy agents by using supported frameworks with AgentCore Runtime.
- Describe the core features of AgentCore Runtime.
- Configure serverless execution with session isolation.
- Configure AgentCore Identity for enterprise security requirements.
- Create policies to secure agent tool calls using AgentCore Policy.
- Implement secure token management and permission delegation.
- Ensure compliance with data governance and audit requirements.
- Implement different tool integration patterns, including built-in tools and protocol-based tools.
- Design and deploy Model Context Protocol (MCP) servers and clients for extensible agent capabilities.
- Describe common authentication patterns for agent tool use.
- Configure AgentCore Gateway components for secure and authorized tool access.
- Implement agentic memory patterns for different use cases.
- Configure AgentCore Memory operations for context-aware development.
- Optimize memory performance for production workloads.
- Configure AgentCore Observability for production monitoring.
- Implement Amazon CloudWatch integration and specialized tracing.
- Describe the core features of AgentCore Evaluations.
- Integrate agentic systems with production APIs and services.
- Design deployment strategies for production environments.
- Assess production readiness and establish continuous improvement processes

Detailed Course Outline

Foundations of Agentic AI Patterns

Agent building blocks

Amazon Bedrock AgentCore introduction

Skills You Will Learn:

In this course learners will:

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- Describe how Bedrock AgentCore services support agentic AI.
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Frequently Asked Questions

Q: What delivery options are available for Building Agentic AI with Amazon Bedrock AgentCore?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 1-day Building Agentic AI with Amazon Bedrock AgentCore course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Building Agentic AI with Amazon Bedrock AgentCore training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Building Agentic AI with Amazon Bedrock AgentCore?

Yes, we provide corporate training, dedicated training, and closed classes for Building Agentic AI with Amazon Bedrock AgentCore. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Building Agentic AI with Amazon Bedrock AgentCore, Machine Learning, BAIABA, Amazon Web Services, vILT

Q: Why choose Nexus Human for Building Agentic AI with Amazon Bedrock AgentCore?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Building Agentic AI with Amazon Bedrock AgentCore training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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