

DEVELOPING GENERATIVE AI APPLICATIONS ON AWS

Duration: 2 Days Course Code: GK910010 Delivery Method: Company Event

Overview:

Learn to build and customize AI solutions by using Amazon Bedrock programmatically. In this advanced two-day course, software developers learn to build and customize AI solutions by using Amazon Bedrock programmatically. Through hands-on exercises and labs, participants will invoke foundation models through Amazon Bedrock APIs, implement Retrieval Augmented Generation (RAG) patterns with Amazon Bedrock Knowledge Bases and develop AI agents with tool integration. The course focuses on the practical implementation of prompt engineering techniques, responsible AI practices with Amazon Bedrock Guardrails, open-source framework integration, and architectural patterns for real-world business application.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

This course is intended for Software developers.

Prerequisites:

We recommend that attendees of this course have:

- Completed the Generative AI Essentials AWS instructor-led course
 - Intermediate-level proficiency in Python
 - Familiarity with AWS Cloud
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Content:

Day 1	Hands-on lab: Develop Conversation Patterns with Amazon Bedrock APIs	Hands-on lab: Evaluating Retrieval Augmented Generation (RAG) Applications
Module 1: Exploring Components of Generative AI Applications on AWS	Day 2	Module 8: Implementing Responsible AI
<ul style="list-style-type: none">Understanding generative AI conceptsIdentifying AWS generative AI stack componentsDesigning generative AI application components	Module 5: Customizing Generative AI Responses with RAG	<ul style="list-style-type: none">Understanding responsible AIMitigating bias and addressing prompt misusesUsing Amazon Bedrock Guardrails
Module 2: Programming with Amazon Bedrock	<ul style="list-style-type: none">Implementing Retrieval Augmented Generation (RAG)Using Amazon Bedrock Knowledge Bases	Hands-on lab: Securing Generative AI Applications Using Bedrock Guardrails
<ul style="list-style-type: none">Guiding model response generationUsing Amazon Bedrock programmatically	Hands-on lab: Develop Retrieval Augmented Generation (RAG) Applications with Amazon Bedrock Knowledge Base	Module 9: Using Tools and Agents in Generative AI Applications
Hands-on lab: Develop with Amazon Bedrock APIs	Module 6: Integrating Open Source Frameworks with Amazon Bedrock	<ul style="list-style-type: none">Using toolsUnderstanding AI agentsUnderstanding open source agentic frameworksUnderstanding agent interoperability
Hands-on lab: Develop Streaming Patterns with Amazon Bedrock APIs	<ul style="list-style-type: none">Invoking a foundation model in Amazon Bedrock using LangChainUsing LangChain for context-aware responses	Module 10: Developing Amazon Bedrock Agents
Module 3: Applying Prompt Engineering for Developers	Hands-on lab: Develop a Generative AI Application Pattern using Open Source Frameworks and Amazon Bedrock Knowledge Bases	<ul style="list-style-type: none">Implementing Amazon Bedrock FlowsDesigning Amazon Bedrock AgentsDeveloping Amazon Bedrock Inline AgentsDesigning multi-agent collaborationUsing Amazon Bedrock AgentCore
<ul style="list-style-type: none">Introducing prompt engineeringIntroducing prompt techniquesOptimizing prompts for better result	Module 7: Evaluating Generative AI Application Components	Hands-on lab: Developing Amazon Bedrock Agents Integrated with Amazon Bedrock Knowledge Bases and Guardrails
Module 4: Using Amazon Bedrock APIs in Common Architectures	<ul style="list-style-type: none">Evaluating application componentsEvaluating model outputEvaluating RAG outputOptimizing latency and cost	
<ul style="list-style-type: none">Implementing architecture patterns with Amazon Bedrock APIsExploring common use casesAdding conversational memory to extend context		

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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