Generative AI Essentials on AWS

Duration: 1 Day Course Code: GK910027

Overview:

The course covers foundational concepts in responsible AI, provides practical experience with AWS generative AI services (Amazon Bedrock, Amazon Nova 2, Amazon Bedrock Knowledge Bases, and Amazon Bedrock AgentCore).

Participants gain hands-on implementation experience with responsible AI principles through Amazon Bedrock Guardrails. Responsible AI serves as a foundational theme throughout all modules, connecting ethical principles to technical implementation. Participants progress from understanding AI fundamentals through implementing solutions, exploring agentic AI capabilities, understanding security and governance considerations, and describing project planning components. Approximately 40% of course time is dedicated to hands-on labs and demonstrations.
- Course level: Fundamental
- Duration: 1 day

Updated August 2026

Target Audience:

Generative AI Essentials on AWS is a comprehensive one-day, instructor-led training course designed for professionals with limited prior knowledge of generative AI.
This course is intended for:
- Business Analysts
- IT Support Professionals
- Marketing Professionals
- Product or Project Managers
- Line-of-Business or IT Managers
- Sales Professionals

Objectives:

- **In this course, you will learn to do the following:**
- Explain responsible AI foundations
- Describe multimodal AI capabilities
- Implement generative AI solutions using Amazon Bedrock and Amazon Nova 2
- Explain how retrieval-augmented generation (RAG) enhances AI responses by connecting agents to organizational knowledge sources
- Describe Amazon Bedrock AgentCore capabilities
- Apply responsible AI practices using Amazon Bedrock Guardrails
- Explain security and governance considerations
- Describe key components of generative AI project planning

Prerequisites:

- None - No prior AI or generative AI knowledge required

Testing and Certification

None

Follow-on-Courses:

- GK0630 - Practical Data Science with Amazon SageMaker
- GK1979 - DevOps Engineering on AWS
- GK910010 - Developing Generative AI Applications on AWS
- GK910029 - Machine Learning Engineering on AWS

Content:

Module 0: Course Introduction

- Course structure/schedule
- Five-phase learning journey
- Responsible AI foundational theme

Module 1: Responsible AI Foundations

- AI evolution: from traditional to generative
- Eight dimensions of responsible AI
- AWS commitment to responsible AI

Module 2: Introducing Generative AI

- Generative AI Foundation
- Foundation models and embeddings deep dive
- Amazon Bedrock and Amazon Nova 2 models
- Comparing models

Module 3: Multi-Modal AI and use cases

- Multimodal AI capabilities
- Industry applications and use cases
- Use case evaluation framework

Module 4: Essentials of prompt engineering

- Prompt engineering fundamentals
- Prompting strategies
- Prompt security and attach vectors
- Lab 1 - Optimizing Slogan Generation with Amazon Bedrock

Module 5: Implementing responsible AI with Amazon Bedrock Guardrails

- Amazon Bedrock guardrails overview and configuration
- Lab 2 - Implementing Responsible AI Principles with Amazon Bedrock Guardrails

Module 6: Introduction to Amazon Agents

- Agentic AI concepts
- Amazon Bedrock capabilities
- Amazon Bedrock AgentCore overview
- RAG and Knowledge Bases

Module 7: Introduction to Security, Governance, and Compliance

- From security principles to organizational accountability
- Governance frameworks
- Compliance requirements

Module 8: Implementing generative AI projects

- Project planning fundamentals
- Lab 3: Building an HR Assistant with Amazon Bedrock

Module 9: Summary

- Learning journey recap
- Next steps

Additional Information:

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

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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