

# Generative AI Essentials on AWS

AWS Classroom Training

## Course description

In this course, you will learn about the fundamental concepts, methods, and strategies for using generative AI. You will gain a solid understanding of use cases where generative AI can provide solutions and address business needs. Additionally, you will learn about practical insights into technologies related to generative AI and how you can use those technologies to solve real-world problems. By the end of the course, you will explore project planning and how to discuss implementation of generative AI in your organization.

- Course level: Fundamental
- Duration: 1 day

## Activities

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

## Course objectives

In this course, you will learn to:

- Summarize generative AI concepts, methods, and strategies
- Discuss the appropriate use of generative AI and machine learning and their technologies
- Describe how to use generative AI responsibly and safely
- Recognize the types of generative AI solutions with specific use cases
- Explain implementation and project planning of generative AI to your organization

## Intended audience

This course is intended for those with limited prior knowledge of generative AI:

- Business analysts
- IT supports
- Marketing professionals
- Product or project managers
- Line-of-business or IT managers
- Sales professionals

## Prerequisites

We recommend that attendees of this course have:

- None

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## Course outline

### Day 1

#### Module 1: Introducing Generative AI

- Generative AI explained
- Foundation models
- AWS generative AI services
- Demo: Generative AI solution

#### Module 2: Exploring Generative AI Use Cases

- Identify suitable use cases
- Generative AI applications and use cases
- Explore generative AI use case scenarios
- Use case for class

#### Module 3: Essentials of Prompt Engineering

- Introduction to prompt engineering
- Prompt design best practices
- Advanced prompting strategies
- Model settings and parameters
- Hands-on Lab: Optimizing Slogan Generation with Amazon Bedrock

#### Module 4: Responsible AI Principles and Considerations

- Introduction to responsible AI
- Core dimensions of responsible AI
- Generative AI considerations
- Hands-on Lab: Implementing Responsible AI Principles with Amazon Bedrock Guardrails

#### Module 5: Security, Governance, and Compliance

- Security overview
- Adverse prompts
- Generative AI security services
- Governance
- Compliance

#### Module 6: Implementing Generative AI Projects

- Introduction – Generative AI application
- Define a use case
- Select a foundational model
- Improve performance
- Evaluate results
- Deploy the application
- Demo: Amazon Q Business

#### Module 7: Integrating Generative AI into the Development Lifecycle

- Introduction
- Hands-on Lab: Capstone – Creating a Project Plan with Generative AI

#### Module 8: Course Wrap-up

- Next steps and additional resources
- Course summary