

## DEVELOPING GENERATIVE AI APPLICATIONS ON AWS

**Varighed: 2 Days    Kursus Kode: GK910010    Leveringsmetode: Virtuel deltagelse**

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### Beskrivelse:

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.

#### Virtuel deltagelse

Et V&C Select kursus indholder nøjagtig det samme som et almindeligt kursus. Før kursusstart modtager man kursusmaterialet. Dernæst logger man på kurset via internettet og ser via sin pc den selvsamme præsentation som de øvrige deltagere, man kommunikerer via chat med underviseren og de øvrige deltagere på kurset. Denne uddannelsesmodel er både tids-og omkostningsbesparende og kan være et oplagt alternativ til almindelig klasseundervisning, hvis man f.eks. har et begrænset rejsebudget.

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### Målgruppe:

This course is intended for Software developers.

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### Forudsætninger:

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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## Indhold:

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| 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"><li>Understanding generative AI concepts</li><li>Identifying AWS generative AI stack components</li><li>Designing generative AI application components</li></ul> | Module 5: Customizing Generative AI Responses with RAG                                                                                                                              | <ul style="list-style-type: none"><li>Understanding responsible AI</li><li>Mitigating bias and addressing prompt misuses</li><li>Using Amazon Bedrock Guardrails</li></ul>                                                                                   |
| Module 2: Programming with Amazon Bedrock                                                                                                                                                          | <ul style="list-style-type: none"><li>Implementing Retrieval Augmented Generation (RAG)</li><li>Using Amazon Bedrock Knowledge Bases</li></ul>                                      | Hands-on lab: Securing Generative AI Applications Using Bedrock Guardrails                                                                                                                                                                                   |
| <ul style="list-style-type: none"><li>Guiding model response generation</li><li>Using Amazon Bedrock programmatically</li></ul>                                                                    | 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"><li>Using tools</li><li>Understanding AI agents</li><li>Understanding open source agentic frameworks</li><li>Understanding agent interoperability</li></ul>                                                                |
| Hands-on lab: Develop Streaming Patterns with Amazon Bedrock APIs                                                                                                                                  | <ul style="list-style-type: none"><li>Invoking a foundation model in Amazon Bedrock using LangChain</li><li>Using LangChain for context-aware responses</li></ul>                   | 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"><li>Implementing Amazon Bedrock Flows</li><li>Designing Amazon Bedrock Agents</li><li>Developing Amazon Bedrock Inline Agents</li><li>Designing multi-agent collaboration</li><li>Using Amazon Bedrock AgentCore</li></ul> |
| <ul style="list-style-type: none"><li>Introducing prompt engineering</li><li>Introducing prompt techniques</li><li>Optimizing prompts for better result</li></ul>                                  | 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"><li>Evaluating application components</li><li>Evaluating model output</li><li>Evaluating RAG output</li><li>Optimizing latency and cost</li></ul> |                                                                                                                                                                                                                                                              |

## Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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