Exam Prep: AWS Certified Machine Learning Engineer – Associate (MLA-C01)
AWS Classroom Training

Course description

Exam Prep: AWS Certified Machine Learning Engineer – Associate (MLA-C01) is a one-day ILT where you learn how to assess your preparedness for the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam. The exam validates a candidate's ability to build, operationalize, and maintain machine learning (ML) solutions and pipelines by using the AWS Cloud.

This intermediate-level course prepares you for the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam by providing a comprehensive exploration of the exam topics. You'll delve into the key areas covered on the exam, understanding how they relate to developing AI and machine learning solutions on the AWS platform. Through detailed explanations and walkthroughs of exam-style questions, you'll reinforce your knowledge, identify gaps in your understanding, and gain valuable strategies for tackling questions effectively. The course includes review of exam-style sample questions, to help you recognize incorrect responses and hone your test-taking abilities. By the end, you'll have a firm grasp on the concepts and practical applications tested on the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam.

Course level: Intermediate

Duration: 1 day

Activities

This course includes subject overview presentations, exam-style questions, use cases, and group discussions and activities.

Course objectives

In this course, you will learn to:

- Identify the scope and content tested by the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam.
- Practice exam-style questions and evaluate your preparation strategy.
- Examine use cases and differentiate between them.

Intended audience

This course is intended for individuals who are preparing for the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam

Prerequisites

You are not required to take any specific training before taking this course. However, the following prerequisite knowledge is recommended prior to taking the AWS Certified Machine Learning Engineer - Associate (MLA-C01) exam.

General IT knowledge

Learners are recommended to have the following:

- Suggested 1 year of experience in a related role such as a backend software developer, DevOps developer, data engineer, or data scientist.

- Basic understanding of common ML algorithms and their use cases

- Data engineering fundamentals, including knowledge of common data formats, ingestion, and transformation to work with ML data pipelines

- Knowledge of querying and transforming data

- Knowledge of software engineering best practices for modular, reusable code development, deployment, and debugging

- Familiarity with provisioning and monitoring cloud and on-premises ML resources

- Experience with continuous integration and continuous delivery (CI/CD) pipelines and infrastructure as code (IaC)

- Experience with code repositories for version control and CI/CD pipelines

Recommended AWS knowledge

Learners are recommended to be able to do the following:

- Suggested 1 year of experience using Amazon SageMaker AI and other AWS services for ML engineering.

- Knowledge of Amazon SageMaker AI capabilities and algorithms for model building and deployment

- Knowledge of AWS data storage and processing services for preparing data for modeling

- Familiarity with deploying applications and infrastructure on AWS

- Knowledge of monitoring tools for logging and troubleshooting ML systems

- Knowledge of AWS services for the automation and orchestration of CI/CD pipelines

- Understanding of AWS security best practices for identity and access management, encryption, and data protection

Course outline

Introduction

Domain 1: Data Preparation for Machine Learning (ML)

1.1 Ingest and store data.

1.2 Transform data and perform feature engineering.

1.3 Ensure data integrity and prepare data for modeling.

Domain 2: ML Model Development

2.1 Choose a modeling approach.

2.2 Train and refine models.

2.3 Analyze model performance.

Domain 3: Deployment and Orchestration of ML Workflows

3.1 Select deployment infrastructure based on existing architecture and requirements.

3.2 Create and script infrastructure based on existing architecture and requirements.

3.3 Use automated orchestration tools to set up continuous integration and continuous delivery (CI/CD) pipelines.

Domain 4: ML Solution Monitoring, Maintenance, and Security

4.1 Monitor model interference.

4.2 Monitor and optimize infrastructure costs.

4.3 Secure AWS resources.

Course completion

AWS updates and occasionally retires services and features as part of ongoing development. While Exam Prep content is regularly updated, there are brief periods when our courses may not reflect the current state of AWS services. We recommend checking the latest AWS documentation and announcements for the most accurate and up-to-date information about the current availability of services and features.