

Building Data Lakes on AWS

Course ID #: 7000-720-ZZ-Z

Hours: 7



Course Content

Course Description:

In this course, you will learn how to build an operational data lake that supports analysis of both structured and unstructured data. You will learn the components and functionality of the services involved in creating a data lake. You will use AWS Lake Formation to build a data lake, AWS Glue to build a data catalog, and Amazon Athena to analyze data. The course lectures and labs further your learning with the exploration of several common data lake architectures.

Course Objectives:

In this course, you will learn to:

- Apply data lake methodologies in planning and designing a data lake
- Articulate the components and services required for building an AWS data lake
- Secure a data lake with appropriate permission
- Ingest, store, and transform data in a data lake
- Query, analyze, and visualize data within a data lake

Prerequisites:

AWS Technical Essentials

Target Audience:

This course is intended for:

- Data platform engineers
- Solutions architects
- IT professionals

Topics:

Lesson 1: Introduction to data lakes

- Describe the value of data lakes
- Compare data lakes and data warehouses
- Describe the components of a data lake
- Recognize common architectures built on data lakes

Lesson 2: Data ingestion, cataloging, and preparation

- Describe the relationship between data lake storage and data ingestion
- Describe AWS Glue crawlers and how they are used to create a data catalog
- Identify data formatting, partitioning, and compression for efficient storage and query

Lab 1: Set up a simple data lake



Building Data Lakes on AWS

Course ID #: 7000-720-ZZ-Z

Hours: 7

Lesson 3: Data processing and analytics

- Recognize how data processing applies to a data lake
- Use AWS Glue to process data within a data lake
- Describe how to use Amazon Athena to analyze data in a data lake

Lesson 4: Building a data lake with AWS Lake Formation

- Describe the features and benefits of AWS Lake Formation
- Use AWS Lake Formation to create a data lake
- Understand the AWS Lake Formation security model

Lab 2: Build a data lake using AWS Lake Formation

Lesson 5: Additional Lake Formation configurations

- Automate AWS Lake Formation using blueprints and workflows
- Apply security and access controls to AWS Lake Formation
- Match records with AWS Lake Formation FindMatches
- Visualize data with Amazon QuickSight

Lab 3: Automate data lake creation using AWS Lake Formation blueprints

Lab 4: Data visualization using Amazon QuickSight

Lesson 6: Architecture and course review

- Post course knowledge check
- Architecture review
- Course review

Register for this class by visiting us at:
www.tcworkshop.com or calling us at 800-639-3535