APPLIED TECHNOLOGY ACADEMY

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Building Data Lakes on AWS Training

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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.

LEVEL	DURATION	EXPERIENCE	AVERAGE SALARY	LABS
Intermediate	**1 Day**	**1 year: Data Analytics**	**$115,000**	**Yes**

Course Overview

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

Course Outline

- **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
- **Lesson 3:**
  - Data processing and analytics
  - Recognize how data processing applies to a data lake

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  - 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

Intended Audience

This course is intended for:

- Data platform engineers
- Solutions architects
- IT professionals

Prerequisites

We recommend that attendees of this course have:

- Completed the AWS Technical Essentials classroom course
- One year of experience building data analytics pipelines or have completed the Data Analytics Fundamentals digital course

Follow-On Courses

- Building Batch Data Analytics Solutions Using Amazon Redshift
- Building Batch Data Analytics Solutions on AWS
- The Machine Learning Pipeline

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.