AWS Cloud Financial Management for Builders



Course ID #: 7000-715-ZZ-Z Hours: 21

Course Content

Course Description:

In this course, you will cover how to implement architectural best practices, explore cost optimization strategies, and design patterns to help you architect cost-efficient solutions on AWS. This course is for individuals who seek an understanding of how to manage, optimize, and predict costs as you run workloads on AWS.

Course Objectives:

In this course, you will learn to:

- Explain the cost of core AWS services
- Determine and predict costs associated with current and future cloud workloads
- Use strategies and best practices to reduce AWS costs
- Use AWS tools to manage, monitor, alert, and optimize your AWS spend
- Apply strategies to monitor service costs and usage
- Implement governance standards, including resource tagging, account structure, provisioning, permissions, and access

Prerequisites:

Architecting on AWS

Target Audience:

- Solutions architects
- Developers
- Cost-optimization leads
- System administrators

Topics:

Lesson 1: Couse Overview

Course Introduction

Lesson 2: Introduction to Cloud Financial Management

- Introduction to Cloud Financial Management
- Four pillars of Cloud Financial Management

Lesson 3: Resource Tagging

- Tagging resources
- Hands-On Lab: Cost optimization: Control Resource Consumption Using Tagging and AWS Config



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Lesson 4: Pricing and Cost

- Fundamentals of pricing
- AWS Free Tier
- Volume discounts
- Savings plans and Reserved Instances

Demonstration: AWS Pricing Calculator

Lesson 5: AWS Billing, Reporting, and Monitoring

- Understanding AWS invoices
- Reporting and planning
- AWS Cost Explorer
- AWS Budgets

Demonstration: AWS Billing Console **Demonstration:** AWS Cost Explorer **Demonstration:** Trusted Advisor **Lab:** Cost optimization: Deploy Ephemeral Environments Using Amazon EC2 Auto Scaling

Lesson 6: Architecting for Cost: Compute

- Evolution of compute efficiency
- Amazon EC2 right-sizing
- Purchasing options
- Architect for Amazon EC2 Spot Instance
- Impact of software licensing

Demonstration: Compute Optimizer **Demonstration:** Spot Instance Advisor **Lab:** Cost optimization: Right Size Amazon EC2 Instances Using Amazon CloudWatch Metrics

Lesson 7: Architecting for Cost: Networking

- Data transfer costs
- Understand data costs for different services
- How to triage network costs

Lab: Cost optimization: Reduce Data Transfer Costs Using Amazon CloudFront and Endpoints

Lesson 8: Architecting for Cost: Storage

- Amazon EBS cost, pricing, and best practices
- Amazon S3 cost, pricing, and best practices
- Amazon EFS cost, pricing, and best practices

Lab: Cost optimization: Reduce Storage Costs Using Amazon S3 Lifecycle Management

Lesson 9: Architecting for Cost: Databases

- Amazon RDS cost, pricing, and best practices
- Amazon Aurora cost, pricing, and best practices
- Amazon DynamoDB cost, pricing, and best practices
- Amazon ElastiCache cost, pricing, and best practices
- Amazon Redshift cost, pricing, and best practices

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Lesson 10: Cost Governance

- Setting up AWS Organizations
- AWS Systems Manager

Lab: Cost optimization: Reduce Compute Costs Using AWS Instance Scheduler

Lesson 11: Course Summary

• Course Review

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