

**AWS Cloud Financial Management for Builders**

**Course Number:** AWS-160  
**Duration:** 3 days

**Overview**

This AWS Cloud Financial Management for Builders training course teaches attendees how to manage, optimize, and predict costs as they run workloads on AWS. Attendees learn how to implement architectural best practices, explore cost optimization strategies, and use design patterns to help them architect cost-efficient solutions on AWS.

Accelebrate is an AWS Training Partner (ATP) and this hands-on official AWS Classroom Training course is taught by an accredited Amazon Authorized Instructor (AAI).

**Prerequisites**

Attendees should have taken [Architecting on AWS](file:////training/aws-architecture) classroom training or have equivalent knowledge.

**Materials**

All AWS training students receive comprehensive courseware.

**Software Needed on Each Student PC**

A modern web browser and an Internet connection that allows connections by SSH or Remote Desktop (RDP) into AWS virtual machines.

**Objectives**

* Explain the cost of core AWS services
* Determine and estimate 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 AWS spend
* Apply strategies to monitor service costs and usage
* Implement governance standards, including resource tagging, account structure, provisioning, permissions, and access

**Outline**

* Introduction to Cloud Financial Management
  + Introduction to Cloud Financial Management
  + Four pillars of Cloud Financial Management
* Resource Tagging
  + Tagging resources
  + Cost optimization: Control Resource Consumption Using Tagging and AWS Config
* Pricing and Cost
  + Fundamentals of pricing
  + AWS Free Tier
  + Volume discounts
  + Savings plans and Reserved Instances
  + AWS Pricing Calculator
* AWS Billing, Reporting, and Monitoring
  + Understanding AWS invoices
  + Reporting and planning
  + AWS Cost Explorer
  + AWS Budgets
  + AWS Billing Console
  + AWS Cost Explorer
  + Trusted Advisor
  + Cost optimization: Deploy Ephemeral Environments Using Amazon EC2 Auto Scaling
* Architecting for Cost: Compute
  + Evolution of compute efficiency
  + Amazon EC2 right-sizing
  + Purchasing options
  + Architect for Amazon EC2 Spot Instance
  + Impact of software licensing
  + Compute Optimizer
  + Spot Instance Advisor
  + Cost optimization: Right Size Amazon EC2 Instances Using Amazon CloudWatch Metrics
* Architecting for Cost: Networking
  + Data transfer costs
  + Understand data costs for different services
  + How to triage network costs
  + Cost optimization: Reduce Data Transfer Costs Using Amazon CloudFront and Endpoints
  + AWS Cloud Financial Management for Builders
  + AWS Classroom Training
* 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
  + Cost optimization: Reduce Storage Costs Using Amazon S3 Lifecycle Management
* 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
* Cost Governance
  + Setting up AWS Organizations
  + AWS Systems Manager
* Conclusion
  + Course review
  + Cost optimization: Reduce Compute Costs Using AWS Instance Scheduler