AWS Academy Cloud Architecting

Content resources

Module 2: Introducing Cloud Architecting

AWS Well-Architected
Operational Excellence Pillar – AWS Well-Architected Framework
Security Pillar – AWS Well-Architected Framework
Reliability Pillar – AWS Well-Architected Framework
Performance Efficiency Pillar – AWS Well-Architected Framework
Cost Optimization Pillar – AWS Well-Architected Framework
Sustainability Pillar – AWS Well-Architected Framework
AWS Well-Architected Tool User Guide: What Is AWS Well-Architected Tool?
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What Is Infrastructure as Code?
Choosing an AWS Database Service
AWS Cloud Security
AWS Global Infrastructure
AWS Local Zones Locations
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Module 3: Securing Access

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AWS Identity and Access Management User Guide: Apply Least-Privilege Permissions
AWS Identity and Access Management User Guide: AWS Security Credentials
AWS Identity and Access Management User Guide: Security Best Practices in IAM
AWS Identity and Access Management User Guide: Tasks that Require Root User Credentials
AWS IAM Identity Center User Guide: What Is IAM Identity Center?
AWS Identity and Access Management User Guide: Security Best Practices in IAM
AWS Identity and Access Management User Guide: Testing IAM Policies with the IAM Policy Simulator
AWS Identity and Access Management User Guide: Identity-Based Policies and Resource-Based Policies
Service Authorization Reference: Actions, Resources, and Condition Keys for AWS Identity and Access Management (IAM)
IPADDRESSGUIDE's CIDR to IPv4 Conversion

Module 4: Adding a Storage Layer with Amazon S3

Amazon Simple Storage Service User Guide: What Is Amazon S3?
Amazon Simple Storage Service User Guide: How Amazon S3 Works
Amazon Simple Storage Service User Guide: Organizing Objects Using Prefixes
Amazon Simple Storage Service API Reference: PutObject – See Also
AWS CLI Command Reference: S3
Amazon Simple Storage Service API Reference: PutObject
Amazon Simple Storage Service User Guide: Uploading and Copying Objects Using Multipart Upload
Amazon S3 Transfer Acceleration: Speed Comparison
AWS Transfer Family User Guide: What Is AWS Transfer Family?
Amazon S3 Pricing
Amazon S3 Storage Classes
Amazon Simple Storage Service User Guide: Expiring Objects
Amazon Simple Storage Service User Guide: Creating Object Key Names
Amazon Simple Storage Service User Guide: Categorizing Your Storage Using Tags
Amazon Simple Storage Service User Guide: Using Versioning in S3 Buckets
Amazon Simple Storage Service User Guide: Using Cross-Origin Resource Sharing (CORS)
Amazon S3 Strong Consistency
Amazon Simple Storage Service User Guide: Data Protection in Amazon S3
Amazon Simple Storage Service User Guide: Protecting Data with Encryption
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Module 5: Adding a Compute Layer by Using Amazon EC2

Amazon Elastic Compute Cloud User Guide: Amazon Machine Images (AMI)
Amazon Elastic Compute Cloud User Guide: Linux AMI Virtualization Types
Amazon Elastic Compute Cloud User Guide: Instance Types
AWS Compute Optimizer User Guide: What Is AWS Compute Optimizer?
Amazon Elastic Compute Cloud User Guide: Run Commands on Your Linux Instance at Launch
AMS Advanced Application Developer's Guide: Application Maintenance Strategies
AMS Advanced Application Developer's Guide: Amazon EC2 instance mutability in AMS
Amazon Elastic Compute Cloud User Guide: Amazon EC2 Instance Store
Amazon Elastic Compute Cloud User Guide: Amazon EBS Volume Types
Amazon Elastic Compute Cloud User Guide: Amazon EBS-Optimized Instances
Amazon Elastic File System User Guide: What Is Amazon Elastic File System?
Amazon Elastic File System User Guide: Amazon EFS File System Types and Storage Classes
Amazon Elastic File System User Guide: Using the EFS Mount Helper to Mount EFS File Systems
Amazon Elastic File System User Guide: Mounting on Amazon EC2 Linux Instances Using the EFS Mount Helper
Amazon FSx for Windows File Server User Guide: What Is FSx for Windows File Server?
Security Pillar – AWS Well-Architected Framework
Performance Efficiency Pillar – AWS Well-Architected Framework
Cost Optimization Pillar – AWS Well-Architected Framework
Sustainability Pillar – AWS Well-Architected Framework

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Amazon DynamoDB Developer Guide: Setting Up DynamoDB (Web Service)
Amazon DynamoDB Developer Guide: Core Components of Amazon DynamoDB
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Module 7: Creating a Networking Environment

What Is CIDR?
Amazon Virtual Private Cloud – AWS PrivateLink: AWS Services that Integrate with AWS PrivateLink
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Module 8: Connecting Networks

AWS Transit Gateway Pricing
AWS Global Accelerator: Speed Comparison
AWS Direct Connect Locations
Reliability Pillar – AWS Well-Architected Framework
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Module 9: Securing User, Application, and Data Access

AWS Identity and Access Management User Guide: What Is ABAC for AWS?
AWS Identity and Access Management User Guide – IAM tutorial: Define Permissions to Access AWS Resources Based on Tags
Identity Federation in AWS
AWS IAM Identity Center
AWS Identity and Access Management
Amazon Cognito
AWS Identity and Access Management User Guide – Overview of AWS Identity Management: Users
AWS IAM Identity Center User Guide: What Is IAM Identity Center?
SAML V2.0 Standard
Amazon Cognito Developer Guide: Access Your Server-Side Resources with a User Pool
Amazon Cognito Developer Guide: User Pools
Amazon Cognito Developer Guide: Features
AWS Organizations User Guide: What Is AWS Organizations?
AWS Organizations User Guide: Service Control Policies (SCPs)
AWS Identity and Access Management User Guide: Policy Evaluation Logic
AWS Control Tower FAQs
AWS Prescriptive Guidance: When Do I Need Symmetric Encryption?
AWS Prescriptive Guidance: When Do I Need Asymmetric Encryption?
AWS Prescriptive Guidance: About Data Encryption
Amazon Simple Storage Service User Guide: Protecting Data with Encryption
AWS Key Management Service
AWS Key Management Service Developer Guide: How AWS Services Use AWS KMS
AWS Key Management Service Developer Guide: AWS KMS Concepts
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Security, Identity, and Compliance on AWS
AWS WAF, AWS Firewall Manager, and AWS Shield Advanced Developer Guide: What Are AWS WAF, AWS Shield, and AWS Firewall Manager?
Amazon Macie User Guide: What Is Amazon Macie?
Amazon Inspector User Guide: What Is Amazon Inspector?
Amazon Detective Administration Guide: What Is Amazon Detective?
AWS Security Hub
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AWS Support User Guide: AWS Trusted Advisor

Module 10: Implementing Monitoring, Elasticity, and High Availability

Amazon EC2 Auto Scaling User Guide: What Is Amazon EC2 Auto Scaling?
Amazon EC2 Auto Scaling User Guide: How Step Scaling Policies Work
Amazon Aurora User Guide: Managing Performance and Scaling for Aurora DB Clusters
What Is DNS?
Amazon Route 53 Developer Guide: Configuring Amazon Route 53 as Your DNS Service
Amazon Route 53 Developer Guide: Supported DNS Record Types
Reliability Pillar – AWS Well-Architected Framework
Performance Efficiency Pillar – AWS Well-Architected Framework

Module 11: Automating Your Architecture

The Case for Investing in Cloud Automation
Introduction to DevOps on AWS: Automation and Tooling
What Is Infrastructure as Code?
AWS CloudFormation
AWS CloudFormation User Guide: AWS Resource and Property Types Reference
What's the Difference Between YAML and JSON
AWS CloudFormation User Guide: Template Anatomy
AWS CloudFormation User Guide: AWS CloudFormation Designer Interface Overview
AWS CloudFormation User Guide: Example Change Sets
AWS CloudFormation User Guide: Updating Stacks Using Change Sets
AWS CloudFormation User Guide: Resource Type Support
AWS CloudFormation User Guide: Working with Nested Stacks
AWS Quick Starts
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Operational Excellence Pillar: Operational Excellence
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Reliability Pillar: Reliability
Cost Optimization Pillar: Cost Optimization
AWS Well-Architected Framework

Module 12: Caching Content

Let's Architect! Leveraging In-Memory Databases
Caching Challenges and Strategies
AWS Caching Solutions
Amazon CloudFront Developer Guide: What Is Amazon CloudFront?
Amazon CloudFront Key Features
Deliver Content Faster with Amazon CloudFront
Amazon CloudFront Developer Guide: Managing How Long Content Stays in the Cache (Expiration)
Amazon Elastic Transcoder Documentation
How to Help Protect Dynamic Web Applications against DDoS Attacks by Using Amazon CloudFront and Amazon Route 53
Latency Reduction of Hybrid Architectures with Amazon ElastiCache
Amazon ElastiCache Documentation
Amazon ElastiCache User Guide: Caching Strategies
Performance Efficiency Pillar: PERF03-BP05 Implement Data Access Patterns that Utilize Caching
Reliability Pillar: REL02-BP01 Use Highly Available Network Connectivity for Your Workload Public Endpoints
Cost Optimization Pillar: COST08-BP01 Perform Data Transfer Modeling
Cost Optimization Pillar: COST08-BP02 Select Components to Optimize Data Transfer Cost
Cost Optimization Pillar: COST08-BP03 Implement Services to Reduce Data Transfer Costs
AWS Well-Architected

Module 13: Building Decoupled Architectures

Elastic Load Balancing User Guide: What Is Elastic Load Balancing?
Implementing Microservices on AWS
Amazon MQ Developer Guide: What Is Amazon MQ?

Module 14: Building Serverless Architectures and Microservices

Serverless Patterns Collection
Amazon Elastic Container Service Developer Guide: What Is Amazon Elastic Container Service?
Amazon API Gateway Developer Guide: Choosing between REST APIs and HTTP APIs
Serverless Applications Lens – AWS Well-Architected Framework
Serverless on AWS

Module 15: Data Engineering Patterns

AWS Glue User Guide: Detect and Process Sensitive Data
Amazon S3 Storage Classes
AWS Well-Architected Framework: Data Analytics Lens
Security Pillar – AWS Well-Architected Framework
Performance Efficiency Pillar – AWS Well-Architected Framework
Cost Optimization Pillar – AWS Well-Architected Framework
Reliability Pillar – AWS Well-Architected Framework

Module 16: Planning for Disaster

Disaster Recovery (DR) Architecture on AWS, Part II: Backup and Restore with Rapid Recovery
Disaster Recovery (DR) Architecture on AWS, Part III: Pilot Light and Warm Standby
Disaster Recovery (DR) Architecture on AWS, Part IV: Multi-site Active/Active
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AWS Well-Architected Framework – Appendix: Questions and Best Practices
Reliability Pillar: Plan for Disaster Recovery (DR)
AWS Well-Architected Framework: OPS 10. How Do You Manage Workload and Operations Events?
Security Pillar: SEC03-BP03 Establish Emergency Access Process
Introducing Global Endpoints for Amazon EventBridge

Module 17: Bridging to Certification

[AWS Certified Solutions Architect – Associate (SAA-C03) Exam Guide](#)
[AWS Certification](#)
[AWS Certified Solutions Architect – Associate](#)
[Exam Prep Official Practice Exam: AWS Certified Solutions Architect – Associate (SAA-C03 - English)](#)
[Exam Prep Enhanced Course: AWS Certified Solutions Architect – Associate (SAA-C03)](#)
[AWS Cloud Quest: Solutions Architect](#)
[Build Your Future in the AWS Cloud](#)
[AWS Well-Architected](#)
[AWS Architecture Center](#)
[Welcome to AWS Documentation](#)
[AWS FAQs](#)
[Getting Started with AWS](#)
[AWS Builder Labs](#)
[AWS Ramp-Up Guides](#)
[AWS Reference Architecture Diagrams](#)
[AWS Whitepapers & Guides](#)
[AWS Quick Starts](#)
[AWS Glue User Guide: Getting Started with the AWS Glue Data Catalog](#)
[Hands-on Tutorials](#)
[Decision Guides](#)
[AWS Ramp-Up Guide: Solutions Architect](#)

AWS Educate courses

The Accessing AWS Educate document in your course resources provides details on how to set up an AWS Educate account and access courses.

The following self-paced Getting Started courses provide foundational learning on the architectural layers discussed in this course:

- Getting Started with Cloud Operations
- Getting Started with Security
- Getting Started with Storage
- Getting Started with Compute
- Getting Started with Databases
- Getting Started with Networking
- Getting Started with Serverless