

Exam Readiness: AWS Solutions Architect Associate

Resources Links

Note: The “Resources” section below shows the module numbers as found in the *Architecting on AWS* course (not the same modules you’ll find in the slide deck for the Exam Readiness course).

Resources

The following resource links will provide more information and help reinforce topics covered during the course “Architecting on AWS”:

Module 1: Introduction

- [AWS Well-Architected](#)
- [Labs and Quests](#)
- [AWS Global Cloud Infrastructure \(Interactive\)](#)
- [Global Infrastructure](#)
- [How AWS Came to Be](#)
- [Learn how we secure AWS data centers by design](#)
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Module 2: The Simplest Architectures

- [Amazon S3 Storage Classes](#)
- [S3 Bucket URLs and the Different Formats](#)
- [Amazon S3 Transfer Acceleration](#)
- [AWS Policy Generator](#)
- [AWS Policy Simulator](#)
- [Amazon S3 pricing](#)
- [Region Table](#)
- [How do I add an S3 Bucket policy?](#)
- [Restrictions and Limitations](#)
- [Bucket Access](#)
- [Hosting a static website on Amazon S3](#)
- [Multipart Upload Overview](#)
- [Multipart Upload Limits](#)
- [Amazon S3 Glacier Access Control with Vault Lock Policies](#)
- [Using Amazon S3 block public access](#)
- [Object lifecycle management](#)
- [How do I block public access to S3 buckets?](#)
- [Locking objects using S3 Object Lock](#)
- [Cross-origin resource sharing \(CORS\)](#)
- [AWS Snowball](#)
- [AWS Snowmobile](#)

Module 3: Adding a Compute Layer

- [Amazon EC2 Instance Types](#)
- [EC2 Instance Comparison](#)
- [Amazon EBS volume types](#)
- [Spot Instance Advisor](#)
- [Update to Spot Instances that allow Stop instead of Terminate](#)
- [Instance metadata and user data](#)
- [Tagging Best Practices](#)
- [Amazon Machine Image \(AMI\)](#)
- [Amazon Elastic Block Store \(Amazon EBS\)](#)
- [Amazon EFS How It Works](#)
- [SSD Instance Store Volumes](#)
- [New – Stop & Resume Workloads on EC2 Spot Instances](#)
- [Amazon EC2 Spot Lets you Pause and Resume Your Workloads](#)
- [Compute Optimizer](#)

Module 4: Adding A Database Layer

- [What Is AWS Database Migration Service?](#)
- [What is Amazon Aurora?](#)
- [Amazon DynamoDB](#)
- [Tutorial on DynamoDB](#)
- [Global Tables Multi-Region Replication with DynamoDB](#)
- [Global Tables](#)
- [Global Tables - More](#)
- [What Is the AWS Schema Conversion Tool?](#)
- [Getting Started with Amazon DynamoDB](#)
- [Cache for DynamoDB](#)
- [Best Practices for Designing and Architecting with DynamoDB](#)
- [Amazon RDS for Oracle](#)
- [Amazon DynamoDB Transactions](#)
- [Snowball Edge](#)

Module 5: Networking In AWS Part 1

- [IP Addressing in your VPC](#)
- [VPC and subnet sizing for IPv6](#)
- [CIDR.xyz](#)
- [Subnetting Secret Book – free on Amazon.com with Kindle-Unlimited](#)
- [Another Day, Another Billion Packets](#)
- [A Day in the Life of a Billion Packets – Revision 3](#)
- [Networking and Content Delivery on AWS](#)
- [Using DNS with your VPC](#)
- [Building a Scalable and Secure Multi-VPC AWS Network Infrastructure](#)

Module 6: Networking In AWS Part 2

- [AWS Global Transit Network](#)
- [What is AWS Site-to-Site VPN?](#)
- [AWS Site-to-site VPN – more info](#)
- [AWS Direct Connect features](#)
- [AWS Direct Connect Resiliency Recommendations](#)
- [AWS Direct Connect does **not** encrypt traffic during transit](#)
- [Assigning my own IP address space to instances created in a VPC](#)
- [Internet Gateway](#)
- [AWS Transit Gateway](#)
- [OSI model](#)
- [Elastic Load Balancing features](#)
- [Deregistration Delay](#)
- [Application Load Balancers now Support Advanced Request Routing](#)
- [Amazon Route53](#)
- [Amazon Route53 Health Checking](#)
- [AWS Global Accelerator FAQs](#)

Module 7: AWS Identity and Access Management (IAM)

- [AWS Identity & Access Management](#)
- [AWS Account Root User](#)
- [Identity Providers and Federation](#)
- [AWS Security Token Service](#)
- [Logging IAM and AWS STS API Calls with AWS CloudTrail](#)
- [AWS Federated Authentication with Active Directory Federation Services \(AD FS\)](#)
- [AWS Service Catalog](#)
- [AWS Landing Zone](#)
- [Service control policies in AWS Organizations enable fine-grained permission controls](#)
- [How to Rotate Access Keys for IAM Users](#)
- [Become an AWS IAM Policy Ninja in 60 Minutes or Less](#)
- [Policies and Permissions](#)
- [IAM DeepDive Video re:Invent 2016 – Be an IAM Policy Ninja in 60 minutes or less](#)
- [Root User Guide](#)
- [Federation with ADFS and SAML](#)
- [Federated Authentication with Active Directory - Blog](#)
- [Cognito User Guide](#)
- [AWS Landing Zone](#)
- [Service Control Policies and AWS Organizations](#)
- [Which AWS Services Work with IAM?](#)

Module 8: Elasticity, High Availability, and Monitoring

- [What Is Amazon CloudWatch?](#)
- [What Is Amazon CloudWatch Logs?](#)

- [Amazon CloudWatch Logs Insights – Fast, Interactive Log Analytics](#)
- [How Amazon CloudWatch Works](#)
- [CloudWatch Metrics](#)
- [CloudWatch Metrics - More](#)
- [Auto Scaling Creates CloudWatch Metrics](#)
- [AWS CloudTrail](#)
- [CloudTrail Supported Services and Integrations](#)
- [CloudTrail Supported Services and Integrations](#)
- [Scaling Your Amazon RDS Instance Vertically and Horizontally](#)
- [CDP:Sharding Write Pattern](#)
- [Amazon DynamoDB On-Demand – No Capacity Planning and Pay-Per-Request Pricing](#)
- [Best Practices for Designing and Using Partition Keys Effectively](#)
- [Designing Partition Keys to Distribute Your Workload Evenly](#)
- [AWS Auto Scaling](#)
- [What Happens When Auto Scaling Policies Conflict?](#)
- [Auto Scaling Termination Policy](#)
- [Step and Simple Scaling Policies for Amazon EC2 Auto Scaling](#)
- [Controlling Which Auto Scaling Instances Terminate During Scale In](#)
- [AWS Services That Publish CloudWatch Metrics](#)
- [Auto Scaling for Amazon DynamoDB](#)
- [Setting up a Billing Alarm for Your Account](#)

Module 9: Automation

- [AWS CloudFormation](#)
- [CloudFormation Sample Templates](#)
- [Detect Drift on an Entire CloudFormation Stack](#)
- [CloudFormation Limits](#)
- [Updating Stacks Using Change Sets](#)
- [AWS Quick Starts](#)
- [AWS System Manager](#)
- [AWS Systems Manager Patch Manage](#)
- [AWS Systems Manager Maintenance Windows](#)
- [AWS Systems Manager State Manager](#)
- [AWS Systems Manager Session Manager](#)
- [AWS Systems Manager Inventory](#)
- [Walkthrough: Refer to resource outputs in another AWS CloudFormation stack](#)
- [AWS OpsWorks](#)
- [AWS Elastic Beanstalk](#)

Module 10: Caching

- [Caching Overview](#)
- [Request and Response Behavior for Amazon S3 Origins](#)
- [What are AWS WAF, AWS shield, and AWS Firewall Manager?](#)

- [AWS Shield](#)
- [Amazon DynamoDB Accelerator \(DAX\) A Read-Through/Write-Through Cache for DynamoDB](#)
- [DAX FAQs](#)
- [What Is Amazon CloudFront?](#)
- [Amazon S3 + Amazon CloudFront A Match Made in the Cloud](#)
- [Amazon ElastiCache](#)

Module 11 Building Decoupled Architectures

- [Building Loosely Coupled, Scalable, C# Applications with Amazon SQS and Amazon SNS](#)
- [Encrypting messages published to Amazon SNS with AWS KMS](#)
- [Can SNS Trigger Lambda Functions?](#)
- [Video: API Gateway \(5/29/2018\)](#)

Module 12: Microservices and Serverless Architectures

- [Microservices](#)
- [AWS Cloud Map](#)
- [Introducing AWS Cloud Map and AWS App Mesh](#)
- [AWS App Mesh Features](#)
- [AWS Fargate](#)
- [Using AWS Lambda with CloudFront Lambda@Edge](#)
- [Lambda Functions as Targets](#)
- [AWS Lambda Examples](#)
- [Is Lambda Fast Enough to Respond to Real-Time Events?](#)
- [AWS Lambda Getting Started](#)
- [AWS Lambda - Customer Case Studies](#)
- [AWS Lambda – Other Use Cases](#)
- [Best Practices for Working with AWS Lambda Functions](#)
- [Building API-Driven Microservices with Amazon API Gateway - AWS Online Tech Talks](#)
- [Using AWS Lambda with Other Services](#)
- [What are AWS WAF, AWS shield, and AWS Firewall Manager?](#)
- [Monitoring AWS WAF, AWS Firewall Manager, and AWS Shield Advanced](#)

Module 13: RTO_RPO and Backup Recovery Setup

- [AWS DataSync](#)
- [AWS Direct Connect Resiliency Recommendations](#)
- [What Is AWS Storage Gateway?](#)
- [AWS Storage Gateway \(File, Volume, Tape\)](#)
- [Large Scale Disaster Recovery Using AWS regions](#)
- [Disaster Recovery Options with AWS - AWS Online Tech Talks](#)
- [RTO/RPO White Paper](#)

- [Large-Scale Recovery](#)
- [Video: DR Options \(11/25/2017\)](#)

Module 14: Optimization

- [Continuous Optimization](#)
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Additional Resources, Tools, and Links

- [Compute Abstractions on AWS: A Visual Story](#)
- [AWS Well-Architected - Learn, measure, and build using architectural best practices](#)
- [AWS Well-Architected Framework](#)
- [Updates to the Well-Architected Framework \(July 2020\)](#)
- [AWS Well-Architected Tool – Review Workloads Against Best Practices](#)
- [AWS Well-Architected Tool – DEMO](#)
- [Amazon EC2 Instance Types](#)
- [Spot Instance Advisor](#)
- [Amazon EC2 Auto Scaling Lifecycle Hooks](#)
- [Running high-scale web applications on Amazon EC2 Spot Instances](#)
- [Amazon EBS Volume Types](#)
- [Recovering files from an Amazon EBS volume backup](#)
- [Amazon Aurora Backtrack – Turn Back Time](#)
- [Best Practices for DynamoDB](#)
- [Best Practices for Designing and Using Partition Keys Effectively](#)
- [Building resiliency at scale at Tinder with Amazon ElastiCache](#)
- [Introducing Amazon Elasticsearch Service as a target in AWS Database Migration Service](#)
- [Migration Complete – Amazon’s Consumer Business Just Turned off its Final Oracle Database](#)
- [Scaling Your Amazon RDS Instance Vertically and Horizontally](#)
- [Right-size Amazon RDS instances at scale based on Oracle performance metrics](#)
- [Amazon S3 + Amazon CloudFront: A Match Made in the Cloud](#)
- [How to set up a CloudFront distribution for Amazon S3](#)
- [Overview of Managing Access on S3](#)
- [New – AWS Storage Gateway Hardware Appliance](#)
- [Using static IP addresses for Application Load Balancers](#)
- [New – Application Load Balancer Simplifies Deployment with Weighted Target Groups](#)
- [How to securely publish Internet applications at scale using Application Load Balancer and AWS PrivateLink](#)
- [Debugging tool for network connectivity from Amazon VPC](#)

- [VPC sharing: A new approach to multiple accounts and VPC management](#)
- [Multiple Region Multi-VPC Connectivity](#)
- [Working with Direct Connect Gateways](#)
- [AWS Direct Connect Partners](#)
- [How do I provision an AWS Direct Connect connection?](#)
- [Building a Serverless Dynamic DNS System with AWS](#)
- [How do I create an IAM policy to control access to Amazon EC2 resources using tags?](#)
- [Simplify granting access to your AWS resources by using tags on AWS IAM users and roles](#)
- [Writing IAM Policies: Grant Access to User-Specific Folders in an Amazon S3 Bucket](#)
- [Now Create and Manage AWS IAM Roles More Easily with the Updated IAM Console](#)
- [Guidelines for protecting your AWS account while using programmatic access](#)
- [Creating a Billing Alarm to Monitor Your Estimated AWS Charges](#)
- [How to better monitor your custom application metrics using Amazon CloudWatch Agent](#)
- [CloudWatch Search Expression Examples](#)
- [CloudWatch Logs Subscription Consumer + Elasticsearch + Kibana Dashboards](#)
- [Running Scripts from GitHub and Amazon S3](#)
- [Validating AWS CloudFormation Templates](#)
- [Amazon CloudFront Dynamic Content Delivery](#)
- [Implementation Considerations - Learn Caching Design Patterns](#)
- [Caching Content Based on Query String Parameters](#)
- [AWS Serverless Application Model](#)
- [Firecracker – Lightweight Virtualization for Serverless Computing](#)
- [Chaos Monkey](#)
- [Netflix's Simian Army](#)
- [Netflix's Conformity Monkey \(now OSS\) for Watching Configurations](#)

Architecture Reference & Tools

- [AWS Quick Starts](#)
- [AWS Solutions](#)
- [AWS Simple Monthly Calculator](#)
- [AWS Pricing Calculator](#)
- [The Amazon Builders' Library](#)
- [AWS Samples](#)
- [AWS CloudFormation Sample Templates](#)
- [AWS SAM - Serverless Application Repository](#)
- [AWS Geek Cloud Diagrams & Notes](#)
- [TOOLS] [CloudPing](#)
- [TOOLS] [AWS Policy Generator](#)
- [TOOLS] [S3 Transfer Acceleration Speed Comparison Tool](#)
- [TOOLS] [AWS Global Accelerator - Speed Comparison](#)
- [TOOLS] [Amazon WorkSpaces - Connection Health Check](#)

- [TOOLS] [Web Identity Federation Playground](#)
- [TOOLS] [AWS Elastic Load Balancer Demos](#)
- [TOOLS] [Amazon S3 Find and Forget](#)
- [TOOLS unofficial] [JMESPath](#)
- [TOOLS unofficial] [AWS IP Ranges](#)
- [TOOLS unofficial] [Cloudcraft - Create smart AWS diagrams](#)
- [TOOLS unofficial] [Bees with Machine Guns!](#)
- [TOOLS unofficial] [The Grinder](#)
- [TOOLS unofficial] [Apache JMeter](#)
- [TOOLS unofficial] [CloudFormation Lint: CFN Nag](#)
- [TOOLS unofficial] [CloudFormation Lint: CFripper](#)
- [TOOLS unofficial] [Awesome Honey Pots](#)
- [TOOLS unofficial] [Modern Honey Network](#)
- [TOOLS unofficial] [Rhino Security Labs - Pacu](#)
- [TOOLS unofficial] [Rhino Security Labs - CloudGoat](#)
- [TOOLS unofficial] [Rhino Security Labs - Cloud Container Attack](#)
- [TOOLS unofficial] [Console Recorder for AWS](#)
- [TOOLS unofficial] [AWS CloudFront CDN Edge Locations](#)
- [TOOLS unofficial] [Lambda Load Testing](#)
- [TOOLS unofficial] [MySQL Samples](#)
- [TOOLS unofficial] [Third-Party Tool to Create Visualizations of Security Groups](#)

Workshops & Labs

- [LABS] [AWS Qwiklabs](#)
- [LABS] [AWS Well-Architected Labs](#)
- [LABS] [VMware Cloud on AWS](#)
- [LABS] [Self-paced Labs](#)
- [Workshop] [AWS Cloud Champion](#)
- [Workshop] [AWSome AWS Workshops](#)
- [Workshop] [Networking Workshop - Transit Gateway and Traffic Mirroring](#)
- [Workshop] [Amazon EC2 Spot Instances Workshop](#)
- [Workshop] [Amazon CloudWatch](#)
- [Workshop] [SSM & Config](#)
- [Workshop] [Amazon FSx Workshop](#)
- [Workshop] [Amazon ECS Workshop for AWS Fargate](#)
- [Workshop] [Amazon EKS Workshop](#)
- [Workshop] [Amazon Lightsail Workshop](#)
- [Workshop] [Amazon DynamoDB Labs](#)
- [Workshop] [Amazon Aurora Labs for MySQL](#)
- [Workshop] [CloudEndure Deep Dive - Workshop](#)
- [Workshop] [Migration and Modernization Workshop Guide](#)
- [Workshop] [Kinesis Streaming Analytics Workshop](#)
- [Workshop] [Workshop: Choose Your Own SAML Adventure](#)
- [Workshop] [Landing Zone Workshop](#)

- [Workshop] [Security Workshops - Permission Boundaries: How to Truly Delegate Permissions on AWS](#)
- [Workshop] [Security Workshops - Data Protection, Detection, Identity, Threat Detection](#)
- [Workshop] [AWS Protecting Workloads Workshops](#)
- [Workshop] [Getting Hands on with Amazon GuardDuty](#)
- [Workshop] [Integrating security into your container pipeline](#)
- [Workshop] [DevSecOps with Snyk](#)
- [Workshop] [Microsoft Workloads Immersion Day](#)
- [Workshop] [Learn Python On AWS Workshop](#)
- [Workshop unofficial] [Welcome to the flAWS challenge](#)
- [Workshop unofficial] [Welcome to the flAWS 2 challenge](#)
- [Workshop unofficial] [Play with Docker](#)
- [Workshop unofficial] [Hello Kubernetes w/ Minikube](#)
- [SLIDES] [Technical Essentials on AWS](#)
- [EBOOK] [Hands-On AWS Penetration Testing with Kali Linux](#)
- [FILES] [Security Engineering on AWS - script lab 2](#)
- [FILES] [Developing on AWS - Additional Resources](#)
- [FILES] [Developing on AWS - Solutions for Labs](#)
- [FILES] [AWSome Days - Additional Resources](#)
- [VIDEO-LABS] [How to use QwikLabs](#)
- [VIDEO-LABS] [AWS Technical Essentials](#)
- [VIDEO-LABS] [AWS Cloud Practitioner Essentials](#)
- [VIDEO-LABS] [Architecting on AWS](#)
- [VIDEO-LABS] [Systems Operations on AWS](#)
- [VIDEO-LABS] [Developing on AWS](#)
- [VIDEO-LABS] [Security Engineering on AWS](#)
- [VIDEO-LABS] [Planning and Designing Database on AWS](#)
- [VIDEO-LABS] [Deep Learning on AWS](#)
- [VIDEO-LABS] [Moving to AWS Serverless](#)
- [VIDEO-LABS] [Advanced Architecting on AWS](#)
- [VIDEO-LABS] [IoT in Scale: IoT Solution using AWS Services](#)

GENERAL LINKS

- [AWS News Blog](#)
- [AWS YouTube channel](#)
- [Reinvent Videos](#)
- [AWS Service Health Dashboard](#)
- [A digital tour of an AWS data center](#)
- [AWS re:Invent 2016 | Amazon Global Network Overview with James Hamilton](#)
- [Service Availability by Region](#)
- [Completing the Netflix Cloud Migration \(Feb 2016\)](#)
- [Diagramming and Budgeting tool that is still early in development but shows great promise](#)