

## Get live, expert instruction from anywhere.



# AWS Certified Solutions Architect Associate Boot Camp

The Architecting on AWS course is designed for solutions architects, solution-design engineers, developers who want to learn fundamental skills to identify services and features to build resilient, secure and highly available IT solutions on the AWS Cloud and more.

## Course description

This 3-day Boot Camp is focused on teaching fundamental, applications in the areas of architecting basic AWS practices, exploring the use of AWS Command Line Interface (CLI) environments, determine strategies for implementing a layered security approach to Virtual Private Cloud (VPC) subnets and more.

This boot camp not only teaches you the knowledge and skills of the scaling solutions on the Amazon Web Services (AWS) platform, it also prepares you to successfully pass the challenging AWS Certified Solutions Architect Associate exam.

This course offers enrollment with a voucher. The voucher is pre-paid access to sit for the certifying exam upon eligibility.

## Who should attend

- » Solutions Architects
- » Cloud Architects
- » Cloud Engineers
- » Software Engineers
- » Full Stack Developers

## Boot camp at a glance



### What you'll learn

- ✓ Follow AWS architectural principles and best practices for better decision-making.
- ✓ Utilize AWS services for scalable and highly available infrastructure.
- ✓ Optimize AWS-based infrastructure for performance and cost-effectiveness, leveraging Managed Services and the Well-Architected Framework.



### Delivery methods

- ✓ Online
- ✓ In person
- ✓ Team onsite



### Training duration

- ✓ Immediate access to Infosec Skills
- ✓ 3-day boot camp
- ✓ 90-day extended access to all boot camp materials

## The hands-on cybersecurity training platform that moves as fast as you do

Infosec Skills boot camps are engineered to match the way today's cybersecurity professionals prefer to learn. In addition to days of live training from an experienced pro, you'll get unlimited access to hundreds of additional hands-on cybersecurity courses and cyber ranges to help you advance your skills before, during and after your boot camp. Your Infosec Skills access extends 90 days past your boot camp, so you can take additional time to prepare for your exam, or get a head start on your next certification goal.



### Start training immediately

Prepare for your boot camp with immediate access to the Infosec Skills on-demand training library.



### Learn by doing in the cyber range

Put what you've learned into practice with 100s of browser-based labs and hands-on projects.



### Get unlimited custom practice exams

Uncover knowledge gaps with unlimited practice exams attempts and skill assessments.



### 700+ IT and security courses

Earn CPEs and build new skills with hundreds of additional training courses.

## What's included

- » Three days of expert, live AWS instruction
- » Exam Pass Guarantee
- » Exam voucher
- » Unlimited practice exam attempts
- » 100% Satisfaction Guarantee
- » Free 90-day Infosec Skills subscription (access to 1,400+ additional courses and lab)
- » 90-day extended access to Boot Camp components, including class recordings
- » Knowledge Transfer Guarantee

### Prerequisites

None, but prior to enrolling in Infosec's AWS Certified Solutions Architect Associate Boot Camp, it is recommended that you have completed the AWS Cloud Practitioner course, working knowledge of distributed systems, familiarity with general networking concepts, working knowledge of multi-tier architectures and familiarity with cloud computing concepts.

## Exam objectives

This boot camp prepares you to pass AWS Certified Solutions Architect Associate exam, which covers 4 domain areas designed to ensure relevancy across all disciplines of information security.

- » Domain 1: Design Secure Architectures
- » Domain 2: Design Resilient Architectures
- » Domain 3: Design High-Performing Architectures
- » Domain 4: Design Cost-Optimized Architectures

## Learn from experts

We don't just have great instructors, our instructors have years of industry experience and are recognized as experts. Over the past 15 years, we've helped tens of thousands of students get certified and advance their careers.

## Skill up and get certified, guaranteed



### Exam Pass Guarantee

If you don't pass your exam on the first attempt, get a second attempt for free. Includes the ability to re-sit the course for free for up to one year.



### 100% Satisfaction Guarantee

If you're not 100% satisfied with your training at the end of the first day, you may withdraw and enroll in a different online or in-person course.



### Knowledge Transfer Guarantee

If an employee leaves within three months of obtaining certification, Infosec will train a different employee for free for up to one year.

# Architecting on AWS details

Our instructors give you 100% of their time and dedication to ensure that your time is well spent. You receive an immersive experience with no distractions! The typical daily schedule is:

	Day 1	Day 2	Day 3
Morning session	Course Introduction Intro to SAA-C03 Domain 1: Design Secure Architectures	Domain 2: Design Resilient Architectures	Domain 4: Design Cost-Optimized Architectures
Afternoon session	Domain 1: Design Secure Architectures	Domain 3: Design High-Performing Architectures	Recap & Review Exam Tips & Practice Exam

*Schedule may vary from class to class*

## Before your boot camp

Start learning now. You'll get immediate access to all the content in Infosec Skills the moment you enroll. Prepare for your live boot camp, uncover your knowledge gaps and maximize your training experience.

## During your boot camp

### Design Secure Architectures

- » Apply AWS security best practices to IAM users and root users (e.g., multi-factor authentication [MFA])
- » Design a flexible authorization model including IAM users, groups, roles, and policies
- » Design a role-based access control strategy (e.g., AWS Security Token Service [AWS STS], role switching, cross-account access)
- » Design a security strategy for multiple AWS accounts (e.g., AWS Control Tower, service control policies [SCPs])
- » Determine the appropriate use of resource policies for AWS services
- » Determine when to federate a directory service with IAM roles
- » Design VPC architectures with security

components (e.g., security groups, route tables, network ACLs, NAT gateways)

- » Determine network segmentation strategies (e.g., using public subnets and private subnets)
- » Integrate AWS services to secure applications (e.g., AWS Shield, AWS WAF, IAM Identity Center, AWS Secrets Manager)
- » Secure external network connections to and from the AWS Cloud (e.g., VPN, AWS Direct Connect)
- » Align AWS technologies to meet compliance requirements
- » Encrypt data at rest (e.g., AWS Key Management Service [AWS KMS])
- » Encrypt data in transit (e.g., AWS Certificate Manager [ACM] using TLS)
- » Implement access policies for encryption keys
- » Implement data backups and replications
- » Implement policies for data access, lifecycle, and protection
- » Rotate encryption keys and renewing certificates

### Design Resilient Architectures

- » Design event-driven, microservice, and/or multi-tier architectures
- » Determine scaling strategies for components

- used in an architecture design
- » Determine the AWS services required to achieve loose coupling
- » Determine when to use containers
- » Determine when to use serverless technologies and patterns
- » Recommend appropriate compute, storage, networking, and database technologies
- » Use purpose-built AWS services for workloads
- » Determine automation strategies to ensure infrastructure integrity
- » Determine the AWS services required to provide a highly available and/or fault-tolerant architecture across AWS Regions or Availability Zones
- » Identify metrics based on business requirements to deliver a highly available solution
- » Implement designs to mitigate single points of failure
- » Implement strategies to ensure the durability and availability of data (e.g., backups)
- » Select an appropriate DR strategy to meet business requirements
- » Use AWS services that improve the reliability of legacy applications and applications not built for the cloud (e.g., when application changes are not possible)
- » Use purpose-built AWS services for workloads

### Design High-Performing Architectures

- » Determine storage services and configurations that meet performance demands
- » Determine storage services that can scale to accommodate future needs
- » Decoupling workloads so that components can scale independently
- » Identify metrics and conditions to perform scaling actions
- » Select the appropriate compute options and features (e.g., EC2 instance types)
- » Select the appropriate resource type and size (e.g., the amount of Lambda memory)
- » Configure read replicas

- » Design database architectures
- » Determine an appropriate database engine (e.g., MySQL compared with PostgreSQL)
- » Determine an appropriate database type (e.g., Amazon Aurora, Amazon DynamoDB)
- » Integrate caching
- » Create a network topology for various architectures (e.g., global, hybrid, multi-tier)
- » Determine network configurations that can scale to accommodate future needs
- » Determine the appropriate placement of resources
- » Select the appropriate load balancing strategy
- » Build and securing data lakes
- » Design data streaming architectures
- » Design data transfer solutions
- » Implement visualization strategies
- » Select appropriate compute options for data processing (e.g., Amazon EMR)
- » Select appropriate configurations for ingestion
- » Transform data between formats (e.g., .csv to .parquet)

### Design Cost-Optimized Architectures

- » Design appropriate storage strategies (e.g., batch uploads to Amazon S3 compared with individual uploads)
- » Determine the correct storage size for a workload
- » Determine the lowest cost method of transferring data for a workload to AWS storage
- » Determine when storage auto scaling is required
- » Manage S3 object lifecycles
- » Select the appropriate backup and/or archival solution
- » Select the appropriate service for data migration to storage services
- » Select the appropriate storage tier
- » Select the correct data lifecycle for storage
- » Select the most cost-effective storage service for a workload
- » Determine an appropriate load balancing strategy (e.g., Application Load Balancer [Layer 7])

- » compared with Network Load Balancer [Layer 4] compared with Gateway Load Balancer
- » Determine appropriate scaling methods and strategies for elastic workloads (e.g., horizontal compared with vertical, EC2 hibernation)
- » Determine cost-effective AWS compute services with appropriate use cases (e.g., Lambda, Amazon EC2, Fargate)
- » Determine the required availability for different classes of workloads (e.g., production workloads, non-production workloads)
- » Select the appropriate instance family for a workload
- » Select the appropriate instance size for a workload
- » Design appropriate backup and retention policies (e.g., snapshot frequency)
- » Determine an appropriate database engine (e.g., MySQL compared with PostgreSQL)
- » Determine cost-effective AWS database services with appropriate use cases (e.g., DynamoDB compared with Amazon RDS, serverless)
- » Determine cost-effective AWS database types (e.g., time series format, columnar format)
- » Migrate database schemas and data to different locations and/or different database engines
- » Configure appropriate NAT gateway types for a network (e.g., a single shared NAT gateway compared with NAT gateways for each Availability Zone)
- » Configure appropriate network connections (e.g., Direct Connect compared with VPN compared with the internet)
- » Configure appropriate network routes to minimize network transfer costs (e.g., Region to Region, Availability Zone to Availability Zone, private to public, Global Accelerator, VPC endpoints)
- » Determine strategic needs for content delivery networks (CDNs) and edge caching
- » Review existing workloads for network optimizations
- » Select an appropriate throttling strategy
- » Select the appropriate bandwidth allocation for a network device (e.g., a single VPN compared with multiple VPNs, Direct Connect speed)

## After your boot camp

Your Infosec Skills access extends 90 days past your boot camp, so you can take additional time to prepare for your exam, get a head start on your next certification goal or start earning CPEs.

## About Infosec

Infosec's mission is to put people at the center of cybersecurity. We help IT and security professionals advance their careers with skills development and certifications while empowering all employees with security awareness and phishing training to stay cyber-safe at work and home. Learn more at [infosecinstitute.com](https://infosecinstitute.com).