Architecting on AWS

Category: Cloud Platforms | **Vendor:** Amazon Web Services

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Related Exam: AWS Certified Solutions Architect – Associate

Course Overview

Over 90% of Fortune 100 companies use AWS, and demand for skilled AWS Solutions Architects continues to grow. In this course, you'll gain the hands-on experience and technical knowledge needed to design secure, high-performing, resilient, and efficient cloud infrastructure on AWS. Learn best practices using the AWS Well-Architected Framework while building real-world solutions that align with business objectives. This course also helps prepare you for the AWS Certified Solutions Architect – Associate exam and is ideal for professionals working toward becoming a certified AWS Solution Architect.

About This Course

Over 90% of Fortune 100 companies use AWS, and demand for skilled AWS Solutions Architects continues to grow. In this course, you'll gain the hands-on experience and technical knowledge needed to design secure, high-performing, resilient, and efficient cloud infrastructure on AWS. Learn best practices using the AWS Well-Architected Framework while building real-world solutions that align with business objectives. This course also helps prepare you for the AWS Certified Solutions Architect – Associate exam and is ideal for professionals working toward becoming a certified AWS Solution Architect.

Who Should Attend

This course is intended for solutions architects, solution-design engineers, developers seeking an understanding of AWS architecting and individuals seeking the AWS Solutions Architect-Associate certification.

Prerequisites & Entry Requirements

General Prerequisites:

- AWS Cloud Practitioner Essentials classroom or digital training, or
- Working knowledge of distributed systems
- Familiarity with general networking concepts
- Familiarity with IP addressing
- Working knowledge of multi-tier architectures
- Familiarity with cloud computing concepts

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Learn to identify services and features that make up the core of AWS solutions and apply them using the AWS Well-Architected Framework. You'll gain experience designing cloud computing environments that are scalable, secure, and resilient. This hands-on course covers compute services like EC2, database services like RDS and DynamoDB, and modern architectures including containers and serverless architecture. You'll also explore automation tools and monitoring solutions that support the creation of highly available IT solutions, helping you build the skills needed to become an AWS Certified Solutions Architect.

Detailed Course Outline

Introductions & Course Map Review

Overview of course structure, AWS certification path, and key learning outcomes

Architecting Fundamentals Review

Explore AWS services and infrastructure models, learn how to identify services and features to build resilient solutions, and review the AWS Well-Architected Framework.

Hands-on Lab: Deploy an EC2 instance using the AWS CLI.

Account Security

Apply best practices for IAM policies, account federation, and managing multiple AWS accounts.

Networking Part 1

Design AWS networking with VPCs, routing, subnets, NACLs, and security groups to support highly available IT solutions.

Compute

Understand compute options in AWS including EC2 instance types, high-performance computing, and serverless architecture options.

Hands-on Lab: Build a VPC and deploy EC2 resources.

Storage

Compare AWS storage services including S3, EBS, and EFS. Learn data migration techniques and storage class use cases.

Database Services

Use Amazon RDS, DynamoDB, and Redshift for different database workloads. Learn to build fault-tolerant and scalable database layers.

Hands-on Lab: Create a highly available RDS instance.

Monitoring and Scaling

Monitor resources using CloudWatch and CloudTrail. Respond to events with automated scaling solutions.

Automation

Automate deployments using AWS CloudFormation and manage resources through AWS Systems Manager.

Containers

Implement container-based architectures on AWS using ECS and EKS. Explore how containers support modern application development.

Networking Part 2

Dive deeper into AWS networking with VPC endpoints, Transit Gateway, hybrid cloud integration, and Route 53 for DNS.

Serverless Architecture

Build scalable applications using AWS Lambda, API Gateway, SQS, and Step Functions.

Hands-on Lab: Design and deploy a serverless architecture.

Edge Services

Reduce latency and improve performance using AWS Global Accelerator, CloudFront, and WAF.

Hands-on Lab: Deploy CloudFront with an S3 backend.

Backup and Recovery

Explore AWS Backup and recovery strategies to ensure business continuity and resiliency in the cloud.

, Day 1

Module 1: Architecting Fundamentals Review

- AWS Services

- AWS Infrastructure

- AWS Well-Architected Framework

- Hands-on lab: Explore and interact with the AWS Management Console and AWS Command Line Interface

Module 2: Account Security

- Principals and identities

- Security policies

- Managing multiple accounts

Module 3: Networking 1

- IP addressing

- VPC fundamentals

- VPC traffic security

Module 4: Compute

- Compute services

- EC2 instances

- Storage for EC2 instances

- Amazon EC2 pricing options

- AWS Lambda

- Hands-On Lab: Build your Amazon VPC infrastructure

Day 2

Module 5: Storage

- Storage services

- Amazon S3

- Shared file systems
- Data migration tools
- Module 6: Database Services
- Database services
- Amazon RDS
- Amazon DynamoDB
- Database caching
- Database migration tools
- Hands-on Lab: Create a database layer in your Amazon VPC infrastructure

Module 7: Monitoring and Scaling

- Monitoring
- Alarms and events
- Load balancing
- Auto scaling
- Hands-on Lab: Configure high availability in your Amazon VPC

Module 8: Automation

- AWS CloudFormation
- Infrastructure management
- Module 9: Containers
- Microservices
- Containers
- Container services

Day 3

Module 10: Networking 2

- VPC endpoints
- VPC peering
- Hybrid networking
- AWS Transit Gateway

Module 11: Serverless

- What is serverless?
- Amazon API Gateway
- Amazon SQS
- Amazon SNS
- Amazon Kinesis
- AWS Step Functions
- Hands-on Lab: Build a serverless architecture

Module 12: Edge Services

- Edge fundamentals
- Amazon Route 53
- Amazon CloudFront
- DDoS protection
- AWS Outposts
- Hands-On Lab: Configure an Amazon CloudFront distribution with an Amazon S3 origin

Module 13: Backup and Recovery

- Disaster planning
- AWS Backup
- Recovery strategies

- Hands-on Lab: Capstone lab – Build an AWS Multi-Tier architecture. Participants review the concepts and services learned in class and build a solution based on a scenario. The lab environment provides partial solutions to promote analysis and reflection. Participants deploy a highly available architecture. The instructor is available for consultation., Day 1, Day 2, Day 3

Skills You Will Learn:

- Identify AWS architecting basic practices
- Summarize the fundamentals of account security
- Identify strategies to build a secure virtual network that includes private and public subnets
- Practice building a multi-tier architecture in AWS
- Identify strategies to select the appropriate compute resources based on business use cases
- Compare and contrast AWS storage products and services based on business scenarios
- Compare and contrast AWS database services based on business needs
- Identify the role of monitoring, load balancing, and auto scaling responses based on business needs
- Identify and discuss AWS automation tools that will help you build, maintain, and evolve your infrastructure
- Discuss hybrid networking, network peering, and gateway and routing solutions to extend and secure your infrastructure
- Explore AWS container services for the rapid implementation of an infrastructure-agnostic, portable application environment
- Identify the business and security benefits of AWS serverless services based on business examples
- Discuss the ways in which AWS edge services address latency and security
- Explore AWS backup, recovery solutions, and best practices to ensure resiliency and business continuity

Frequently Asked Questions

Q: What delivery options are available for Architecting on AWS?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: Which exam does this course prepare me for?

This course prepares you for the AWS Certified Solutions Architect – Associate official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 3-day Architecting on AWS course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Architecting on AWS training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Architecting on AWS?

Yes, we provide corporate training, dedicated training, and closed classes for Architecting on AWS. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Architecting on AWS, AWS System Architecture, AWSA, Amazon Web Services, vILT

Q: Why choose Nexus Human for Architecting on AWS?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Architecting on AWS training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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