

Architecting on AWS Course Outline

This comprehensive Architecting on AWS covers the basics of building and designing an IT infrastructure on AWS. This course will teach solution architects how to create and deploy the different AWS cloud features and help understand the AWS services and how they interact and fit into a cloud-based platform and solution.

AWS Foundations

Module 1

- Cloud Concepts
- Introduction to AWS
- Intro to Compute & Network Services
- AWS Storage Services
- Intro to Database Services
- AWS Free tier

Module 2

- Amazon VPC
- VPC Networking Fundamentals
- Elastic Network Interface
- AWS VPC Endpoints
- VPC Peering
- Routing Inside VPC
- Managing Security Group
- Create Availability Zone
- Building NAT Gateway

Module 3

- Identity and Asset Management (IAM)
- Creating an S3 Bucket and Hosting our Website
- S3 Version Control and Lifecycle Management
- Storage Class in AWS
- AWS Command line interface (CLI)
- Direct Connect

Module 4

- Databases on AWS
- Elastic Compute Cloud (EC2)
- Serverless Architectures on AWS

- Cloudwatch
- CloudTrail
- Amazon Simple Queue Service (SQS)
- AWS Simple Notification Service (SNS)

Module 5

- Deployment on AWS
- Demonstration - Blue-Green Deployments on AWS
- Serverless Architectures on AWS
- Creating a CloudFront Distribution
- AWS CloudFormation

Module 6

- Route 53
- Routing Traffic with AWS Route 53
- Purchasing Domain Names with Route 53
- Demonstration AWS Workspace
- Managing Cost in AWS

Module 7

- Encryption on AWS
- Essentials AWS Network Load Balancers
- AWS Application Load Balancers
- Creating an SSL Certificate with AWS Certificate Manager
- AWS Auto Scaling

Module 8

- Serverless Architectures on AWS
- Highly Available and Fault Tolerance Architecture
- AWS Backup and Recovery
- Data Security

Hands-On Lab

Lab 1 - Amazon Virtual Private Cloud (VPC)

- Creating a VPC
- Creating the Subnets, Route Tables, and Internet Gateway
- Launching a Web-Server Instance into the Public Subnet
- Lab Session - Connecting to EC2 Linux Instances
- Lab Session - Connecting to EC2 Windows Instances
- Setting Up Network Address Translation Gateway

Lab 2 – Identity Access and Management

- Creating a New User
- Create Administrators Group
- Adding Users to the Administrators Group
- Creating Developers Group
- Adding Users to the Developers Group
- Creating a Role
- Launching an EC2 Instance with a Role
- Checking Role Permissions

Lab 3 – Build a Wordpress Website

- Creating an S3 Bucket and hosting our website
- Launch and configure a WordPress instance with Amazon Lightsail
- Create a Load Balanced WordPress website

Lab 4 – Route 53

- Registering a Domain Name
- Configuring Domain for Use with Route 53
- Configure Domain Record Sets

Lab 5 – Amazon CloudFormation and Cloud Front

- Creating a Stack
- Deleting a Stack
- Creating an Amazon S3 Bucket and Populating it with Files
- Configuring a Cloud Distribution

What will you learn?

- Learn how to become an AWS cloud Architect.
- Understand how to build and deploy AWS cloud solutions.
- Manage solutions on the AWS platform using specialist infrastructures.
- Deep understanding of Identity access and management and Route 53
- Learn about Amazon CloudFormation and Amazon CloudFront
- How to Launch an EC2 Instance with Role.
- Gain experience of working in an AWS environment