

QBee Academy
AWS Course Syllabus

1. Fundamentals of AWS Cloud Computing
2. Elastic Compute Cloud
3. Virtual Private Cloud
4. Storage
5. Elastic Load Balancers and Elasticity
6. Identity & Access Management
7. Databases
8. Decoupling Applications
9. Domain Name System
10. AWS CloudFront
11. AWS ECS
12. AWS Storage Extras
13. Serverless Computing
14. AWS CLI and SDK
15. AWS Encryptions
16. Migration Service and Disaster Recovery
17. Monitoring

AWS Course Syllabus – Sub Topics

1. Fundamentals of AWS Cloud Computing

- Introduction to Cloud Computing
- Cloud Environment Architecture
- Cloud Computing Models
- Introduction to Amazon Web Services
- AWS Global Infrastructure

2. Elastic Compute Cloud

- Launching our first EC2 instance
- EC2 instance types & Pricing Models
- Creating AMI and Image Templates
- Understanding Security Groups - a Server side Firewall

3. Virtual Private Cloud

- Introduction to Network Switches & Virtual Private Cloud
- VPC & Subnets
- Private and Public Subnets
- Internet Gateways, VPC Peering & NAT Gateways
- VPN Setup

- IP Addressing in AWS

4. Storage

- Introduction to Block & Object storage mechanism
- Introduction to Elastic Block Store - EBS
- EBS Snapshots
- EBS Volume Types
- Instance Store Volumes
- Introduction to Simple Storage Service (S3)
- Features of S3
- Storage Types
- Static Website Hosting
- Versioning
- Life Cycle Policy
- Cross Region Replication
- Encryption
- Basics of Athena
- Introduction to EFS
- Connect a drive via network
- Share the drive among multiple servers

5. Elastic Load Balancers and Elasticity

- Understanding High Availability Configuration
- ELB Configuration with Classic and Application Load Balancers
- Auto Scaling

6. Identity & Access Management

- Understanding the IAM Policies
- IAM User, IAM Policy and IAM Role

7. Databases

- Introduction to Relational Databases
- Creating our first database structure in MySQL
- Getting started with DynamoDB
- Know about ElastiCache, Redshift

8. Decoupling Applications

- Amazon SQS
- Amazon SNS
- Amazon SES
- Kinesis Overview

9. Domain Name System

- Introduction to DNS
- Understanding DNS Records
- Introduction to Route53
- Register a Domain using Route 53
- Manage DNS Hosts

10. AWS CloudFront

- Introduction to CloudFront
- CloudFront with S3
- CloudFront Advanced Concepts

11. AWS ECS

- Getting Started with Containerization
- ECS Services and Tasks
- Load Balancing in ECS
- ECS Scaling

12. AWS Storage Extras

- AWS Snowball
- Storage Gateways

- Hands on API Gateways

13. Serverless Computing

- Serverless Introduction
- Lambda
- Setting up Server Auto Start with a Lambda Function
- Elastic Beanstalk
- Host a Sample PHP website using Elastic Beanstalk

14. AWS CLI and SDK

- Getting Started with AWS CLI
- AWS CLI setup on EC2 instances
- Connect EC2 instance with other AWS services like S3 or SNS or SES

15. AWS Encryptions

- AWS Security
- KMS Overview
- SSM Parameter Store
- CloudHSM

16. Migration Service and Disaster Recovery

- Database Migration Services
- DataSync Overview
- AWS Backups

17. Monitoring

- Understanding CloudWatch
- Setup Alarms for Matrix changes
- Auditing AWS environment with CloudTrail
- Schedule Event Rules using Target based services