

AWS Technical Essentials introduces you to essential AWS services and common solutions. The course covers the fundamental AWS concepts related to compute, database, storage, networking, monitoring, and security. You will start working in AWS through hands-on course experiences. The course covers the concepts necessary to increase your understanding of AWS services, so that you can make informed decisions about solutions that meet business requirements. Throughout the course, you will gain information on how to build, compare, and apply highly available, fault tolerant, scalable, and cost-effective cloud solutions.

- **Course level:** Fundamental
- **Duration:** 16 hours

Activities

This course includes presentations, Demonstrations, videos, knowledge checks, and assessment.

Course objectives

In this course, you will learn to:

- Introduction to cloud computing
- Why Amazon AWS Cloud
- Describe terminology and concepts related to AWS services
- Navigate the AWS Management Console
- Articulate key concepts of AWS security measures and AWS Identity and Access Management (IAM)
- Distinguish among several AWS compute services, including Amazon Elastic Compute Cloud (Amazon EC2), AWS Lambda, AWS Autoscaling & Load balancing services, Amazon Elastic Container Service (Amazon ECS), and Cloudfront Services.
- Understand AWS database and storage offerings, including Amazon Relational Database Service (Amazon RDS), Amazon DynamoDB, and Amazon Simple Storage Service (Amazon S3)
- Explore AWS networking services
- Access and configure Amazon CloudWatch monitoring features

Intended audience

This course is intended for:

- Individuals responsible for articulating the technical benefits of AWS services to customers
- Individuals interested in learning how to get started with AWS
- SysOps administrators
- Solutions architects
- Developers
- Server Administrator
- Cloud Engineer

Prerequisites

We recommend that attendees of this course have:

- IT experiences
- Operating System Concepts
- Basic knowledge of common data center architectures and components (servers, networking, databases, applications, and so on)
- No prior cloud computing or AWS experience required

Course outline

Module 1: Introduction to Cloud Computing

- What is Cloud Computing
- Cloud Terminology
- On premises vs Cloud Computing
- Cloud Service Model
- IaaS, PaaS, SaaS Architecture
- Public, Private & Hybrid Cloud Model
- Public Cloud Market Share
- AWS, Azure, Google, Oracle Cloud Service

Module 02: Introduction to Amazon Web Services

- Introduction to AWS Cloud Service
- Why AWS Cloud
- AWS Architecture (Region, AZ, Datacenter)
- Different Types of AWS Services
- Security in the AWS Cloud
- Hosting the employee directory application in AWS
- **Demonstration:** Introduction to AWS Identity and Access Management (IAM)

Module 03: AWS Compute Services

- Compute as a service in AWS
- Introduction to Amazon Elastic Compute Cloud
- Amazon EC2 instance lifecycle
- AWS container services
- What is serverless?
- Introduction to AWS Lambda
- Choose the right compute service
- **Demonstration:** Launch the Employee Directory Application on Amazon EC2

Module 04: AWS Networking Services

- Networking in AWS
- Introduction to Amazon Virtual Private Cloud (Amazon VPC)
- Amazon VPC routing
- Amazon VPC security
- Amazon DNS Services
- **Demonstration:** Create a VPC and launch a Web Server

Module 05: AWS Storage Services

- Introduction to AWS Storage
- AWS storage types
- Amazon EC2 instance storage and Amazon Elastic Block Store (Amazon EBS)
- Object storage with Amazon S3
- Choose the right storage service
- **Demonstration:** Add an Amazon EBS volume and create partition

Module 06: AWS Databases Services

- Explore databases in AWS
- Amazon Relational Database Service
- Purpose-built databases
- Introduction to Amazon DynamoDB
- Choose the right AWS database service
- **Demonstration:** Implement and Manage Amazon DynamoDB

Module 07: Monitoring, Optimization, and Serverless

- Cloud Watch Introduction
- Cloud Monitoring
- Cloud Optimization
- Alternate server less employee directory application architecture
- **Demonstration:** Configure High Availability for Your Application

Module 08: Other AWS Core Services

- What is AWS EC2 Autoscaling
- The AWS Elastic Load Balancer
- AWS Cloudfront services
- AWS Container Services
- **Demonstration: Scale and Load-Balance Your Web Application**