

## AWS WebService Training

AWS training prepares you for the AWS Certified Cloud Practitioner Examination from AWS. This exam is the first step to opting for any of the different **certification** paths offered by AWS, including Cloud Practitioner, Architect, Developer, and Operations.

With our training in Amazon cloud computing, you gain a comprehensive understanding of the most popular virtualization and cloud computing platforms. You also learn all about cloud computing architecture and different popular PAAS available on the market today. Gain real-life experience of the PaaS and IaaS offerings in the AWS platform with our Cloudlabs. This AWS practitioner training also empowers you with the skills you need to launch your own virtual server (AMI), define storage block, set up relational database, configure Cloudwatch to monitor the resources deployed on Amazon cloud. Through case studies on AWS, learn the best practices and use cases of AWS in the industry

### Prerequisites

- Good to have a basic understanding of IT services and their uses in the AWS Cloud platform and Linux CLI
- A Prior Knowledge of AWS is not mandatory

Duration: 3 days

### Course Objective:

AWS Certified Cloud Computing course, you will be able to:

- Explain what the AWS Cloud is and the basic global infrastructure
- Describe basic AWS Cloud architectural principles
- Describe the AWS Cloud value proposition
- Explain the key services on the AWS platform and their common use cases
- Describe basic security and compliance aspects of the AWS platform and the shared security model
- Identify sources of documentation or technical assistance
- Describe a basic/core characteristics of deploying and operating in the AWS Cloud
- Appear for the official exam to become a AWS Practitioner on cloud technologie

### Course Outline

## 1. Introduction to Cloud Computing

- A short history
- Client Server Computing Concepts
- Introduction to Cloud Computing
- Why Cloud Computing?
- Benefits of Cloud Computing

## 2. Networking Basics

- Understanding Networking Concepts
- OSI Model
- LAN, WAN, MAN
- Virtual Private Network (VPN)

## 3. Virtualization

- Introduction to Virtualization
- Role of Virtualization in Cloud Computing
- Types of Virtualization
- Examples of Virtualization
- Benefits of Virtualization
- Virtualization terminologies
- Emulator
- Hypervisor
- Backup and Snapshotting
- Failover
- Examples of Virtualization
- VMware
- Virtualbox
- Qemu/KVM

## 4. Types of Cloud Computing

- Software as a Service
- Platform as a Service
- Infrastructure as a Service
- Other XaaS's

## 5. Characteristics of Cloud Computing

- API based access
- Cost

- Device independence
- Virtualization
- Multitenancy Cloud Deployment Models
- Public Cloud
- Private Cloud
- Hybrid Cloud
- When to choose what?
- 6. Cloud Computing Issues
  - Privacy
  - Compliance
  - Legality
  - Security

## 7. Cloud Architectures

- Stateless architectures
- Handling failures in the cloud

## 8. Cloud Computing - Analyzing the Space

- Major cloud providers
- Important cloud related software

## 9. PAAS - Deep Dive

- Benefits of PAAS
- Issues with PAAS
- PAAS Examples
  - Google AppEngine
  - Heroku
  - Windows Azure

## 10. Web Application Engineering in the Cloud

- DNS
- Load Balancer
- Web Servers
- Application Servers
- Scaling web and application servers
- Data stores/Cloud Storage
- Relational Databases
- NoSQL databases
- Scaling datastores

- Storing and analyzing unstructured data in the cloud
- Data Analysis and the Hadoop Ecosystem
- Eliminating SPOFs
- 11. Amazon Web Services (AWS)
- Introduction to the AWS products
- Amazon Elastic Compute Cloud (EC2)
- Amazon Simple Storage Service (S3)
- Elastic Block Storage (EBS)
- Elastic Load Balancing (ELB)
- Amazon Relational Database Service (RDS)
- Amazon DynamoDB
- Auto Scaling
- Amazon ElastiCache
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## 12. IAAS - Deep Dive

- Understanding cloud terminologies
- Compute
- Storage
- Networking
- Other services on the periphery
- IAAS Providers
- Amazon AWS
- Google Compute Engine
- Elastic Compute Cloud Essentials
- Introduction to the AWS Management Console
- Regions and Availability Zones - How to choose the right one
- Amazon Machine Images (AMI)
- Setting up security
- Finding the right AMI
- Launching an instance - How to choose the right instance type
- Security via Key Pairs
- Working with the Security Group
- Assigning Elastic IPs
- Logging into the instance

## 13. EC2 Instances

- Deciding between
- On-demand instances
- Spot instances
- Reserved instances
- EC2 Reserved Instance Marketplace

## 14. Working with AMIs

- Choosing the right AMI
- Creating your own AMI
- Deciding what goes into an AMI

## 15. Elastic Block Store (EBS)

- Creating and deleting volumes
- Attaching and detaching volumes
- Mounting and Unmounting the attached volume
- Creating snapshots

## 16. Simple Storage Service (S3)

- Creating and deleting buckets
- Adding objects to buckets
- Getting objects
- Deleting objects

## 17. Relational Database Service (RDS)

- Selecting the Engine
- Configuring the Database Engine
- Creating your Database
- Setting up automatic backups
- Authorizing access to the DB via DB Security Groups

## 18. Cloudwatch

- Debugging cloud related issues
- Monitoring the AWS Service Health Dashboard
- Monitoring with Cloudwatch
- Getting statistics for a specific EC2 instance
- Getting aggregated statistics
- Metrics for other AWS Services and related namespaces
- Setting up notifications
- Using command-line tools

## 19. IAM

- Users and Groups
- Permissions and Policies
- Roles
- Creating admin groups via UI and the command line



- Elastic Beanstalk
- Simple Notification Service (SNS)
- Simple Email Service (SES)
- Simple Queue Service (SQS)

## 20. Case Studies - Amazon Web Services

- Building a simple web application in the cloud
- Building a community based photo/video sharing site
- Building an ad-serving site in the cloud