



Training on Amazon AWS – Cloud Computing Course Content

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Amazon Web Services (AWS) – Cloud Computing

1) Introduction to cloud computing

- Introduction to Cloud Computing
- Why Cloud Computing?
- Benefits of Cloud Computing

2) Types of Cloud Computing

- Public Cloud
- Private Cloud
- Hybrid Cloud
- Community Cloud
- Software as a Service
- Platform as a Service
- Infrastructure as a Service
- Horizontal v/s vertical scaling

3) Cloud Computing Issues

- Security
- Costing Model
- Service Level Agreement (SLA)
- Cloud Interoperability Issue
- What to migrate?
- Legal and compliance

4) Virtualization

- What is virtualization?
- Virtualization and cloud computing
- Types of virtualization
- Virtualization terminologies
- Hypervisor
- Benefits
- Vendors

➤ Amazon Web Services (AWS)

5) Introduction to AWS

- Elastic computing
- Introduction to the AWS products
- Regions and Availability Zones
- Signing up for AWS
- AWS Free usage tier
- Introduction AWS management console

6) EC2 Instances

- Understanding AMI
- Launching your first AWS instance
- On-demand Instance pricing
- Reserved Instance pricing
- Spot instance pricing
- Setting up security
- Security groups
- Choosing the AMI
- Creating a new AMI
- Public and Private IP's
- Deploying a new instance from the created AMI
- Key Pairs
- Elastic IP's
- ELB (Elastic Load Balancer)

7) EBS (Elastic Block Storage)

- Create EBS volumes
- Delete EBS Volumes
- Attach and detach EBS volumes
- Mounting and un-mounting EBS volume
- Creating and deleting snapshots
- Creating volumes from snapshots

8) S3 (Simple Storage Service)

- What is S3?
- RRS (Reduced Redundancy storage)
- S3 durability and redundancy
- S3 Buckets
- S3 Uploading Downloading
- S3 Permissions
- S3 Object Versioning
- S3 Lifecycle Policies

➤ Glacier storage

9) Route53

- Creating zones
- Hosting a website
- Understanding routing policies
- Weighted simple and failover policies

10) CloudFront

- Use of CloudFront
- Creating a CloudFront distribution
- Hosting a website of CloudFront distribution
- Implementing restrictions
- Configuring origins and behaviors

11) Identity access management (IAM)

- Creating Users and Groups
- Applying policies
- Password Policy
- Roles

12) Amazon Virtual Private Cloud (VPC)

- What is VPC?
- VPC configuration
- VPC security
- Elastic IP's
- Inbound and outbound ACL's

13) Cloud Formation

- What is cloud formation?
- Deploying template
- Create Stack
- Delete Stack
- Monitoring the resources

14) Relational Database Service (RDS)

- Selecting the Database type
- Configuring the database
- Creating database
- Configuring backups
- Configuring the maintenance windows
- Connecting to the database.

15) CloudWatch

- CloudWatch dashboard
- Configuring Monitoring services
- Setting thresholds
- Configuring actions
- Creating a CloudWatch alarm
- Getting statistics for ec2 instances
- Monitoring other AWS services
- Configuring Notifications

- Integrating CloudWatch with Auto scaling

16) Autoscaling

- Boot strapping
- Create a launch configuration
- Create an Auto Scaling group
- Create a policy for your Auto Scaling group
- set up an auto-scaled, load-balanced Amazon EC2 application

17) Simple Notification Service (SNS)

- What is SNS?
- Creating a topic
- Create subscription
- Subscribed to the subscription

➤ Simple Email Service (SES)

➤ Simple Queue Service (SQS)

➤ Command line management.

18) Scaling Applications in AWS

- Deploying scalable applications in AWS
- Selecting and launching an application environment
- Provisioning application resources with CloudFormation

19) Dynamo DB

- Creating a Dynamo db
- Configuring alarms
- Adding data manually

20) Elastic Beanstalk

- Creating environment
- Application versioning
- Deploying a sample app

21) AWS troubleshooting

- Troubleshooting EC2 instances
- Troubleshooting using CloudWatch
- Troubleshooting using ELB
- Using CloudTrail

22) Project and AWS Case study

- Creating and managing a multitier application on AWS platform
- Best practices for AWS

- Cost control strategies
- Overview of AWS certification