Collabera®

Training on Amazon AWS - Cloud Computing

Course Content

Topics covered in the training

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

Types of Cloud Computing
- Public Cloud
- Private Cloud
- Hybrid Cloud
- Software as a Service
- Platform as a Service
- Infrastructure as a Service
- Horizontal vs. vertical scaling

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

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

Amazon Web Services (AWS)
- 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

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)

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

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

Simple Notification Service (SNS)
- what is SNS?
- Creating a topic
- Create subscription
- Subscribed to the subscription

Auto scaling
- 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

Identity access management (IAM)
- Creating Users and Groups
- Applying policies
- Password Policy
- Roles

Command line management.

Elastic Beanstalk
- Creating environment
- Application versioning
- Deploying a sample app

S3 (Simple Storage Service)
- what is S3?
- S3 Infrequent Access storage
- S3 durability and redundancy
- S3 Buckets
- S3 Uploading Downloading
- S3 Permissions
- S3 Object Versioning
- S3 Lifecycle Policies

Glacier storage

Route53
- Creating zones
- Hosting a website
- Understanding routing policies
- Weighted simple and failover policies

Relational Database Service (RDS)
- Selecting the Database type
- Configuring the database
- Creating database
- Configuring backups
- Configuring the maintenance windows
- Connecting to the database.

Cloud Formation
- What is cloud formation?
- Deploying template
- Create Stack
- Delete Stack
- Provisioning application resources with CloudFormation
- Monitoring the resources

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

Amazon Virtual Private Cloud (VPC)
- What is VPC?
- VPC configuration
- VPC security
- Elastic IP's
- Inbound and outbound ACL's
- Simple Queue Service (SQS)

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

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

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