



Eduva Tech

AWS AMAZON WEB SERVICES SYLLABUS

Prepared For :
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aws



AWS SOLUTIONS ARCHITECT (ASSOCIATE)

Course Outline

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
- Community Cloud
- Infrastructure as a Service
- Software as a Service
- Platform as a Service

VIRTUALIZATION

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

AMAZON WEB SERVICES (AWS)

- Introduction to AWS
- 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
- Spoor instance pricing
- Spot instance pricing
- Setting up security Security group
- Choosing the AMI
- Creating the new AMI
- IP Addresses Scheme
- Public and Private IP's
- Deploying a new instance from the created AMI
- AMI Migrations
- Key Pairs
- Elastic IP's
- Exercise(s)

ELB (ELASTIC LOAD BALANCER)

- Introduction to ELB
- Basic ELB concepts
- Internet-facing ELB
- VPC-facing ELB
- Create an ELB (Elastic Load Balancer)
- Adding and removing instances on ELB Exercise(s)

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
- Exercise(s)



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S3 (SIMPLE STORAGE SERVICE) AND AMAZON GLACIER STORAGE

- Object Storage versus Traditional Block and File Storage
- What is S3?
- RRS (Reduced Redundancy Storage) S3 durability and redundancy
- S3 Buckets
- S3 Uploading Downloading
- S3 Permissions
- S3 Object Versioning
- S3 Lifecycle Policies
- Amazon Glacier
- Exercise(s)

AMAZON VIRTUAL PRIVATE CLOUD (AMAZON VPC)

- Introduction
- Amazon Virtual Private Cloud (Amazon VPC) Subnets
- Route Tables
- Internet Gateways
- Dynamic Host Configuration Protocol (DHCP) Option
- Sets Elastic IP Addresses (EIPs)
- Elastic Network Interfaces



- (ENIs) Endpoints
- Peering
- Security Groups
- Network Access Control Lists (ACLs)
- Network Address Translation (NAT) Instances and NAT Gateways
- Virtual Private Gateways (VPGs), Customer Gateways (CGWs), and Virtual Private Networks (VPNs)
- Exercise(s)

CLOUD WATCH

- CloudWatch dashboard
- Configuring Monitoring services
- Settings thresholds
- Configuring actions
- Creating a CloudWatch alarm Getting statistics for EC2 instances Monitoring other AWS services
- Configuring Notifications
- Integrating CloudWatch with Autoscaling
- Exercise(s)

SIMPLE NOTIFICATION SERVICES (SNS)

- What is SNS?
- Creating a topic
- Create subscription
- Subscribe to the subscription (SQS, Email, HTTP)
- Exercise(s)



SES (SIMPLE EMAIL SERVICES)

SQS (SIMPLE QUEUE SERVICE)

AUTO-SCALING

- Horizontal vs, vertical scaling
- Bootstrapping
- Create a launch configuration
- Create an Autoscaling group
- Create a policy for your Auto Scaling group Set up an auto-scaled, load-balanced Amazon EC2 application
- Exercise(s)

AWS IDENTITY AND ACCESS MANAGEMENT (IAM)

- Creating Users and Groups
- Applying Policies
- Password Policy
- Roles
- Command line management
- Exercise(s)





.RELATIONAL DATABASE SERVICE (RDS)

- Selecting the Database type
- (MySQL) Configuring the database
- Creating database
- Configuring the backups
- Configuring the maintenance windows
- Connecting to the database
- Exercise(s)

RELATIONAL DATABASE SERVICE (RDS)

- Creating a DynamoDB
- Configuring alarms
- Adding data manually
- Exercise(s)

CLOUD FORMATION

- What is cloud formation?
- Deploying template
- Create Stack
- Delete Stack
- Provisioning application resources with CloudFormation
- Exercise(s)





CLOUD FRONT

- Use of CloudFront
- Creating a CloudFront distribution
- Hosting a website of CloudFront distribution
- Implementing restriction
- Configuring origins and behaviours
- CND (Content Delivery Network)
- Exercise(s)

DOMAIN NAME SYSTEM (DNS) AND AMAZON ROUTE 53

- Domain Name system (DNS) overview
- Understanding DNS records
- Route 53 overview
- Routing Policies
- Health Check

