

[AWS-DAW]: AWS Cloud – Developer Associate Workshop

Length : 4 days
Delivery Method : Instructor-led (Classroom)

At Course Completion

Prepares you as per certification requirements for AWS Developer Associate.

Pre-Requisites

Basic Linux commands like working with files and directories is desired.

Course Outline

Day 1: AWS Technical Essentials

Module 1: AWS Technical Essentials

Lessons

- User Sign Up
- Overview Amazon Management Console
- Management Activity and Billing overview
- Amazon Pricing

Module 2: AWS Big Picture – 10000 feet overview?

Lessons

- An overview of AWS
- EC2- An overview
- EBS- An Overview
- Security Group-An Overview
- Elastic IP- An overview
- Cloud Front-An Overview
- S3- An overview
- Glacier- An overview
- IAM – An Overview
- RDS- AN overview

Module 3: Amazon EC2- Win server 2012

Lessons

- Launch Windows server 2012 Instance
- Decrypt Password and download RDP shortcut client
- connect to the EC2 Windows 2012 instance
- Terminate the Windows server 2012 Instance

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com

Module 4: Amazon EC2- Security Groups**Lessons**

- Creating Security Groups
- Modify Security Groups
- Delete Security Groups

Module 5: Amazon Elastic Block Store**Lessons**

- Create Standard Volume
- Create and delete snapshots
- Create Provisioned I/o Volume
- Assign volumes to Windows server 2012 and Ubuntu 14.04 server
- Disassociate and Delete volumes

Module 6: Amazon Elastic Load Balancing (ELB)**Lessons**

- **Lab 6.1**
 - Launch Two Ubuntu EC2 Instances- apache web servers with user data
 - Edit HTML files to both the servers
 - Test your web Servers through internet
- **Lab 6.2**
 - Create Elastic Load Balancer
 - Add both the Ubuntu servers to ELB
 - Test your Elastic Load Balancer
 - Delete your Elastic Load Balancer

Module 7: AWS Route 53**Lessons**

- What is Route 53
- Route 53 demo integration with ELB you created

Module 8: AWS S3**Lessons**

- AWS s3 - Overview and pricing
- Create Bucket and Folder
- Upload, download, share and delete object
- Delete Bucket

Day 2: EC2, S3, Glacier, EBS, AutoScaling, OpsWorks**Module 9: Amazon EC2 - Ubuntu 14.04 with user data and metadata****Lessons**

- Launch the EC2 Ubuntu cloud server
- Using User-data of web-server
- Validate user data is executed successfully

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com

- Fetch information about VM from metadata URL

Module 10: Amazon EC2 and EBS System operations

Lessons

- EC2- Advanced theory ec2 EBS vs instance store
- EC2- Operations (Status checks)
- EC2 – Creating your own AMI
- EC2 – Launching instance using own AMI
- EC2 – copy snapshot across region and share across accounts
- EBS – Snapshot
- EBS- creating volume using snapshot
- EBS – copy EBS snapshot across region and share across accounts
- EBS - upgrade volume types
- Security groups - create, edit and modify rules

Module 11: AWS Elastic File System

Lessons

- AWS elastic File System – Overview and pricing
- Create EFS share and mount to an ec2 instance
- Store and retrieve from EFS

Module 12: AWS S3

Lessons

- AWS s3- Overview and pricing
- Create Bucket and Folder
- Upload, download, share and delete object
- Delete Bucket
- File Versioning (s3 version control)
- Create a static website on s3
- Create a server less webpage
- Cross Region replication
- CORS configuration
- S3 Life cycle management
- S3 security and encryption

Module 13: AWS CloudFront

Lessons

- CloudFront overview and pricing
- Create an origin bucket for CloudFront
- Upload file to origin bucket
- Create CDN distribution and use origin bucket
- Access files through CloudFront distribution

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com

Module 14: AWS other storage options**Lessons**

- Storage Gateway – Overview and pricing
- Snowball – Overview and Pricing
- Glacier – Overview and pricing
- Glacier – Live demo by instructor using fast glacier client

Day 3: AWS Security- IAM, AWS CLI, SDK, DynamoDB**Module 15: AWS- IAM (Identity and Access Management)****Lessons**

- What is IAM? – A comprehensive introduction
- AWS federation with Active directory- Theory only
- Web Identity Federation - Theory Only
- Security Token Service – Theory only
- Getting started with IAMs
- IAM user- groups
 - Creating a user and group
 - Adding a user to the group
 - Password policy setup for users
 - Attaching policy to users
 - Enabling dual /Multi factor authentication to the users
- IAM roles
 - Creating a role
 - Launching a EC2 instance using a S3 full access role
 - Deleting a role

Module 2: AWS CLI**Lessons**

- Working with the AWS cli
- Launch instance with S3 and ec2 full access
- Configure AWS cli client
- Create a security group using cli
- Create a key pair using cli
- Launch a ec2 instance using cli
- Stop an ec2 instance using cli
- Terminate an ec2 instance using cli
- Create an S3 bucket using cli
- Upload and download an object from your local machine to S3 through cli
- List buckets through cli
- Delete buckets through cli

Module 3: AWS DynamoDB Database using Python SDK**Lessons**

- AWS Database options: RDS and Dynamo DB differences
- Describe Amazon DynamoDB

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com

- DynamoDB Provisioned throughput
- Using web identity to connect to authenticate with DynamoDB - overview
- DynamoDB Indexes
- Aspects of DynamoDB

Lab: Configure python SDK to access to DynamoDB

Lab: Create tables using python SDK

Lab: Put item in using SDK

Lab: Scan and Query API call using python SDK

Lab: Delete item using SDK

Module 4: AWS route 53

Lessons

- Route 53 - routing options
- Simple routing - Hands on lab
- weighted routing policy lab
- latency based routing lab
- Geolocation based routing lab
- failover routing lab

Day 4: VPC, Cloud Formation, Beanstalk, SNS, SQS, SWF

Module 1: AWS- Virtual Private Cloud (VPC)

Lessons

- What is VPC? – A comprehensive introduction
- Networking bottlenecks
- Understanding VPC configurations
 - VPC with single public subnet
 - VPC with public and private subnet
 - VPC Peering
 - Access control List
- Configuring VPC Instances
 - Creating a VPC
 - Subnets
 - Internet Gateway
 - Routing
 - Configuring a NAT Gateway
 - Creating security groups
 - Launching instances in public and private subnets
- NAT vs Bastions
- VPC Flow Logs
- VPC clean up

Module 2: Cloud Formation

Lessons

- Infrastructure as Code using Cloud Formation

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com

- Cloud formation – Create a new stack
- Create and deploy sample template in JSON format
- Use existing templates and deploy

Module 3: Compute Part II operations

Lessons

- Bash Scripting
- Lambda

Module 4: Application Development and Deployment Best Practices

Lessons

- Application deployment using AWS Elastic Beanstalk
- Deploy java beanstalk environment
- Deploy web application to environment
- Terminate beanstalk environment

Module 5: AWS- Simple Notification Service (SNS)

Lessons

- Simple Notification Service (SNS) – Overview and use case
- Create SNS notification
- Subscribe for notification

Module 6: AWS- SQS and SWF

Lessons

- Simple Queue Service (SQS) - Overview and use case
- Simple Workflow (SWF) - Overview and use case

AVANTUS TRAINING PTE LTD

80 Jurong East Street 21 #04-04 Devan Nair Institute Singapore 609607

Main Line: +65 6661 0888 | Fax: +65 6661 0886

Email: enquiries@AvantusTraining.com

www.AvantusTraining.com