

## AWS Course Outline

- Instruction to virtualization Technology
- Instruction to cloud Computing
  - Types of Cloud
  - Services of Cloud
- Virtualization VS Cloud Computing

### AWS

- **Introduction and overview of AWS**  
**History of AWS**

## Brief Description of AWS Services

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| <ul style="list-style-type: none"><li>■ <b>Compute</b><ul style="list-style-type: none"><li>EC2</li><li>Elastic Container Service</li><li>Lambda</li><li>Elastic Beanstalk</li></ul></li><li>■ <b>Database</b><ul style="list-style-type: none"><li>Relational Database Service</li><li>DynamoDB</li><li>ElastiCache</li><li>Amazon Redshift</li></ul></li></ul> | <ul style="list-style-type: none"><li>■ <b>Storage</b><ul style="list-style-type: none"><li>S3</li><li>EFS</li><li>Glacier</li><li>Storage Gateway</li></ul></li><li>■ <b>Migration</b><ul style="list-style-type: none"><li>AWS Migration Hub</li><li>Application Discovery Service</li><li>Database Migration Service</li><li>Server Migration Service</li><li>Snowball</li></ul></li></ul> |
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## ■ Networking & Content Delivery

- VPC
- CloudFront
- Route 53
- API Gateway
- Direct Connect

## ■ Management Tools

- CloudWatch
- AWS Auto Scaling
- CloudFormation
- CloudTrail
- Config
- OpsWorks
- Service Catalog
- Systems Manager
- Trusted Advisor
- Managed Services

## Security, Identity & Compliance

- IAM
- AWS Single Sign-On
- WAF & Shield

## ■ Application Integration

- Simple Notification Service
- Simple Queue Service
- SWF

## Customer Engagement

- Amazon Connect
- Simple Email Service

## Desktop & App Streaming

- WorkSpaces

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## ■ Sign up to AWS Free Tier.

### ■ Compute

#### ➤ EC2

- EC2 - The Backbone of AWS

  - Launch an EC2 Instance - Part 1

  - Launch an EC2 instance - Part 2

  - How to use Putty (Windows Users Only)

- Security Groups Basics

- Upgrading EBS Volume Types - Lab

  - Encrypt Root Device Volume and Create an AMI -

  - Lab AMIs - EBS Root Device Volumes vs Instance

  - Store Load Balancers and Health Checks

## Cloud Watch EC2

The AWS Command Line and  
EC2 Using IAM Roles with EC2

## S3 CLI & Regions

Using Bootstrap Scripts  
EC2 Instance Metadata  
Autoscaling Groups Lab  
EC2 Placement Groups  
Elastic File System Lab  
Lambda - Concepts

## Build A Serverless Webpage

Using Polly To Help You Pass Your Exam - A Serverless Approach -  
Part 1

Using Polly To Help You Pass Your Exam - A Serverless Approach -  
Part 2

Build An Alexa Skill  
Guru Of The Week  
EC2 Summary

## EC2 Quiz

## ■ Storage



### S3

- AWS Object Storage and CDN - S3, Glacier and CloudFront
- S3 101
- Lab: Create an S3 Bucket
- Lab: S3 Version Control
- Cross Region Replication
- Lab: S3 Life Cycle Management & Glacier
- CloudFront CDN Overview
- Create a CloudFront CDN
- S3 Security and Encryption
- Storage Gateway
- Snowball
- Snowball Lab

- S3 Transfer Acceleration
- Create A Static Website Using S3
- Summary
- S3 Quiz

➤ **EFS**

■ **Database**

- RDS Instance
- Lab: Create our first RDS Instance
- RDS - Back Ups, Multi-AZ & Read Replicas
- DynamoDB
- RedShift
- Elasticache
- Aurora
- Databases Summary
- Databases Quiz

■ **Networking & Content Delivery**

➤ **VPC**

- Introduction and Overview
- Build Your Own Custom VPC
- Build A Custom VPC - Part 2
- Network Address Translation (NAT) Access Control Lists (ACLs)
- Custom VPCs and ELBs
- VPC Flow Logs
- NATs vs Bastions
- VPC End Points
- VPC Clean Up
- Summary
- VPC Quiz

➤ **Route 53**  
DNS 101

Route 53 Register A Domain Name  
Lab Setup Our EC2 Instances Lab  
Simple Routing Policy Lab  
Weighted Routing Policy Lab  
Latency Routing Policy Lab  
Failover Routing Policy Lab  
Geolocation Routing Policy  
Lab DNS Exam Tips

Route53 Quiz

## ■ **Management Tools**

CloudWatch  
AWS Auto Scaling

## ■ **Security, Identity & Compliance**

➤ IAM  
IAM  
IAM Lab  
Create A Billing Alarm -  
Lab IAM Summary  
IAM Quiz

## ■ **Application Services**

- SQS
- SWF
- SNS
- Elastic Transcoder
- API Gateway
- Kinesis 101
- Kinesis Lab
- Application Services Summary
- Application Services Quiz

## ■ **Simple Notification Service**