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Creating Software Professionals

AWS Course: Skill and Certification Oriented Course

AWS Solution Architect Associate Course

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➢ Who can do this course:

Anyone (Students, Working Professionals: Developers, Administrators, Testers, Architects) who wish to learn and/or make career in AWS

➢ Prerequisites

1. Operating Systems Basics (Windows, Linux)
2. Basics of Virtualization concepts
3. Basics of Networking concepts
3. Basics of Private and Public cloud

➢ Course Deliverables: **On completion, student should be able to do the following**

- Ability to explain AWS services
- Describe key services on the AWS platform and their common use cases.
- Describe basic security and compliance aspects of the AWS platform and the shared security model.
- Describe AWS Cloud architectural principles.
- User Management Capability in AWS
- Able to setup various Backup Scenarios in AWS
- Able to create complete Datacenter Network on AWS
- Able to create Virtual Machines on AWS
- Able to create Highly Available and Scalable DNS on AWS
- Able to create Databases on AWS with understanding of best practices
- Understanding of various application Services
- Understanding of AWS best practices
- Can successfully crack below mentioned certification exams:
  1 AWS Cloud Practitioner 2 AWS Solution Architect Associate

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➢ Course Description

This Course will be delivered in two modules

- **Module 1: Cloud Practitioner Architect**

Module 1: Introduction to Cloud Computing ➢ Comparing On-premises data centers vs. Cloud ➢ Private, Public, and Hybrid Cloud ➢ Cloud Services (Offering) - IaaS, PaaS, SaaS, XaaS. ➢ Introduction to AWS Services ➢ AWS Platform ➢ AWS Global Infrastructure & Creating an AWS Account ➢ Regions and Availability Zones **Lab 1:** AWS Management Console Know-How	**Module 4: Overview of AWS Billing** ➢ Introduction ➢ Detailed Billing Reports, Resource ➢ Groups and Tagging ➢ AWS Organizations ➢ Consolidated Billing ➢ AWS EC2 & TCO Calculator **Lab 1:** Creating a Cost Budget to avoid unexpected charges
Module 2: AWS Services Introduction - Part 1 ➢ IAM Introduction ➢ S3 Introduction ➢ EC2 Introduction **Lab 1:** Interacting with these services	**Module 5: AWS Security Overview** ➢ Shared Responsibility Model ➢ AWS Risk and Compliance ➢ AWS Trusted Advisor ➢ AWS Inspector, CloudTrail and Config ➢ AWS WAF and AWS Shield
Module 3: AWS Services Introduction - Part 2 ➢ Load Balancers ➢ Databases ➢ Autoscaling ➢ Elastic Beanstalk ➢ CloudFormation	**Module 6: Architecting for AWS** ➢ AWS Best Practices **Module 7: Course summary and mock exam**

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Module 2: AWS Architect Associate

Module 1: Introduction to AWS Services ➢ Overview of the Exam ➢ Overview of Regions and AZ's **Lab 1:** Securing your AWS account using AWS's best practices. **Lab 2:** Root user-Multi Factor Authentication (MFA)	**Module 2: Deep Dive into IAM** Details of IAM Service **Lab 1:** Creating Users, Groups and Roles **Lab 2**: Cross Region account access by using Security Token Service
Module 3: Deep Dive into AWS Storage Services and CDN ➢ Introduction to S3 and Various classes ➢ S3 Versioning ➢ S3 Lifecycle Management and Glacier ➢ Cross Region Replication ➢ S3 Security and Encryption ➢ S3 Transfer Acceleration **Lab 1:** Exercises on S3 ➢ Introduction to Cloud Front ➢ Storage Gateway ➢ Snowball	**Module 4: Deep Dive into VPC** ➢ Introduction to VPC ➢ Difference Between Default and Custom VPC ➢ Introduction to Gateways ➢ Understanding Route tables and Subnets ➢ Understanding Security Groups and NACL's ➢ NAT's and Bastion Host ➢ VPC Endpoints **Lab1:** VPC flow Logs **Lab2:** Creating a Custom VPC **Lab3:** Creating and Understanding Security Groups **Lab4:**Network Access Control Lists (Network ACLs)
Module 5: Deep Dive into EC2 ➢ Introduction to EC2 ➢ Introduction to EBS Volumes **Lab 1**: Using SSH to connect to a Linux EC2 instance. **Lab 2:** Using Windows PC to connect to a Linux EC2 instance - Using Putty Agent **Lab 3:** Working with EBS Volumes **Lab 4:** Creating AMI's and Launching Instance **Lab 5:** Setting up Cloud Watch Alarms in EC2 **Lab 6:** Private, Public and Elastic IP Addresses. ➢ AWS Command line tool and bootstrapping ➢ S3 CLI and Regions ➢ Understanding Auto scaling ➢ EC2 placement Groups and Elastic File system Introduction to Lambda	**Module 6: Route 53** ➢ Introduction to Route 53 ➢ Routing Policies and Health Checks **Lab 1:** Route 53 Register a Domain Name **Lab 2:** Simple Routing Policy **Lab 3:** Weighted Routing Policy Lab **Lab 4:** Latency Based Routing Policy l **Lab 5:** Failover Routing Policy Lab

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Module 7: Databases on AWS **Relational and No SQL databases** ➢ Introduction to Databases ➢ RDS - Backups ➢ Multi-AZ and Read Replicas Concept ➢ DynamoDB ➢ ElastiCache, Document DB, Neptune ➢ Redshift ➢ Aurora **Lab 1:** Create an RDS Instance	**Module 8: Introduction to Application Services** ➢ SQA ➢ SNS ➢ SWF ➢ Elastic Transcoder ➢ API Gateway ➢ Kinesis
Module 9: AWS Whitepapers Walkthrough ➢ Overview of Amazon Web Services ➢ Overview of Security Processes ➢ AWS Risk and Compliance ➢ Storage Options in the Cloud ➢ Architecting for the AWS cloud Well Architected Framework	**Module 10: Monitoring Services** ➢ Amazon Cloud Watch 101 ➢ Amazon Cloud Trail ➢ **Lab 1**: Setting up Cloud Watch Alarms in EC2 ➢ **Lab 2**: Lab on Cloud Trail
Module No: 11 Analytics Services in AWS ➢ Amazon Redshift Spectrum ➢ Amazon Athena ➢ AWS Glue ➢ Amazon Kinesis Data Streams ➢ Amazon Kinesis Data Firehose & Data Analytics ➢ Amazon QuickSight ➢ AWS Data Pipeline **Lab 1:** Amazon Athena **Lab 2:** AWS Glue **Lab 3:** Kinesis Data Streams **Lab 4:** Kinesis Data Firehose	**Module 12: Security, Identity and Compliance Services in AWS** ➢ AWS CloudHSM (Hardware Security Module) ➢ AWS Shield (Standard and Advanced) for DDoS Protection in AWS ➢ AWS Web Application Firewall (WAF) ➢ Amazon GuardDuty ➢ Amazon Inspector ➢ Amazon Macie ➢ Amazon Cognito ➢ AWS Directory Services ➢ AWS Single Sign-On (SSO) **Lab 1:** AWS Shield Advanced **Lab 2:** AWS WAF

NOTE: Each Module contain quiz session with 40 question

Mock Exams (Full Length)

- ✓ Guidelines for exam
- ✓ Practice Test 1: - Full Length Mock Exam I
- ✓ Practice Test 2: - Full Length Mock Exam II