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AWS SysOps Associate Certification Training Course

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Program Overview:

This AWS SysOps Associate Training establishes your expertise in deploying, managing, and operating highly scalable systems on the Amazon Web Services (AWS) cloud platform. As a prerequisite to the DevOps Engineer certification, this course will help you migrate on-premise applications to AWS, control the flow of data to and from AWS, master the AWS management console, implement operational cost controls, and enhance your ability to leverage AWS resources and services in the most efficient way.

Program Features:

- ➢ Trusted content
- ➢ Re-learn for free anytime in a year

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- ➢ Rigorous assignments and assessments

- ➢ Learn at your own pace

- ➢ Mandatory feedback sessions

- ➢ Mock-interview

- ➢ Hands-on real-time experience

- ➢ Free Mentorship

- ➢ Live chat for instant solutions

- ➢ Job-ready employees post-training

- ➢ End-to-end training

- ➢ Download the certificate after the course

Delivery Mode:

- ➢ Online Training

Prerequisites:

To apply for the AWS SysOps Administrator Associate certification, you must fulfill the

Following prerequisites

- ➢ Complete AWS Technical Essentials course or have significant hands-on professional

- ➢ experience in operating AWS-based applications

- ➢ Experience provisioning, operating, and maintaining systems running on AWS

- ➢ Be able to define a solution that is to be built and operated on AWS

- ➢ Possess the capabilities to provide AWS operations and deployment guidance, and best

- ➢ practices, throughout a project's lifecycle

Target Audience:

- ➢ System administrators

- ➢ Cloud architects

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- ➢ Cloud developers
- ➢ IS/IT auditors/consultants
- ➢ IT compliance managers

Key Learning Outcomes:

By the end of the course you'll be able to:

- ➢ Deploy, manage, and operate scalable, highly available, and fault-tolerant systems on AWS
- ➢ Migrate an existing on-premises application to AWS
- ➢ Ensure data integrity and data security on AWS technology
- ➢ Select the appropriate AWS service based on computer, data, or security requirements
- ➢ Identify appropriate use of AWS operational best practices
- ➢ Understand operational cost control mechanisms and estimate AWS usage costs

Certification Details and Criteria:

- ➢ The AWS Certified SysOps Administrator – Associate examination is intended for systems
- ➢ administrators in a systems operations role with at least one year of experience in deployment,
- ➢ management, and operations on AWS.
- ➢ The AWS Solutions Architect Associate exam is 130 minutes long and features multiple-choice questions
- ➢ AWS Certification exams are administered at Kryterion testing centers in more than 750 locations worldwide; register to secure your exam appointment
- ➢ AWS Certification Cost: The registration fee for the AWS SysOps Associate Exam is USD 150

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- To unlock your AWS certificate from Hatigen, you must:

Online Classroom:

- Attend one complete batch
- ⬜ Complete one project and one simulation test with a minimum score of 60 percent

Online Self-learning:

- Complete at least 85 percent of the course
- Complete one project and one simulation test with a minimum score of 60 percent

Course Curriculum:

Lesson 01 - Course Introduction

- Course Introduction

Lesson 02 - Monitoring and Metrics

- Monitoring and Metrics
- Amazon CloudWatch
- Monitoring EC2 Service in AWS
- Demo: How to Create an Alarm for a Service
- Monitoring AWS EBS
- Monitoring Elastic Load Balancer in AWS
- Demo: Monitoring ELB and EBS Volume in AWS CloudWatch
- Monitoring Relational Database (RDS) Service in AWS
- Demo: Monitor RDS Instance in AWS Through CloudWatch
- Monitoring ElastiCache Service in AWS
- Monitoring EFS in AWS
- Troubleshooting Common Monitoring Issues
- Demo: CloudWatch

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- Features and Usage of CloudWatch Logs Filters and Alarms
- Demo: Set up CloudWatch Alarm on Log Filter Metrics
- Features and Usage of AWS CloudTrail
- Monitoring Pricing
- AWS Billing and Cost Management
- Demo: Set Up Billing Metric Alerts Using CloudWatch
- Implementing Cost Optimization in AWS
- Demo: Set up Alarm That Will Automatically Stop EC2 Instance if CPU Utilization is Less
- Than or Equal to Twenty
- Key Takeaways
- Knowledge Check

Lesson 03 - Networking

- Networking
- VPC
- VPC Sizing and IP Addresses
- Subnets
- IGW
- Route Tables
- NAT Gateway
- VPC Endpoints
- VPC Flow Logs
- VPC Peering
- Network Security Bastion Hosts and Security Groups
- Security Group
- Demo: VPC Properties-Subnet IGW Route NAT Security Group

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- ➢ Demo: VPC Peering Connection
- ➢ Limitations and Disadvantages of Increasing Security Groups
- ➢ VPC Sizing and IP Addresses
- ➢ Demo: Configuring VPC
- ➢ Concepts of VPN
- ➢ Demo: VPN Connection
- ➢ CloudFront
- ➢ Route 53
- ➢ Demo: Create a Hosted Zone in Route 53 and Test the Routing Policies
- ➢ Cloud Networking Direct Connect0
- ➢ Demo: Launching EC2 instance and Private Subnet
- ➢ Key Takeaways
- ➢ Knowledge Check

Lesson 04 - Analysis and Cost Effectiveness in AWS

- ➢ Analysis and Cost Effectiveness in AWS
- ➢ Analysis in Cloud
- ➢ Demo: Troubleshoot the AutoScaling Issues
- ➢ Cost Management in Cloud
- ➢ Demo: Create Billing Alert
- ➢ Cost Explorer Tool, Consolidated Billing, and Trusted Advisor
- ➢ Demo: Walkthrough AWS Cost and Billing Dashboard
- ➢ EC2 Pricing
- ➢ Cost Optimization
- ➢ Tagging in the Cloud
- ➢ Demo: Enable Detailed Billing on Your Account
- ➢ Demo: Create Billing Alert for Idle EC2 Instance

- ➤ Key Takeaways
- ➤ Knowledge Check

Lesson 05 - Security

- ➤ Security
- ➤ Features and Uses of IAM
- ➤ AWS Identities and Access Management
- ➤ Demo: Create an IAM group with EC2 Full Access Permission
- ➤ Demo: IAM Roles
- ➤ Demo: IAM Policy
- ➤ Overview of AWS Shared Responsibility Model
- ➤ Data Protection in Amazon S3
- ➤ Demo: Create an S3 bucket and Add Policy
- ➤ Account and Instance Security
- ➤ Security Assessment: An Overview
- ➤ Key Takeaways
- ➤ Knowledge Check

Lesson 06 - Data Management

- ➤ Data Management
- ➤ Key Concepts of Storage in AWS
- ➤ AWS Storage Services: EBS
- ➤ Elastic Block Storage (EBS)
- ➤ Amazon S3
- ➤ Storage Gateway
- ➤ Data Life Cycle and Backups in AWS
- ➤ Amazon Elastic Block Storage (EBS) and Amazon S3

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- ➤ Managing Amazon S3
- ➤ Amazon Read Replicas (RDS) and Amazon Glacier
- ➤ Demo: Creating an Amazon S3 Bucket and Archiving it in Amazon Glacier
- ➤ Security and Troubleshooting Storage in AWS
- ➤ Storage Troubleshooting Storing Log Files
- ➤ Backup and Restore
- ➤ Demo: Synchronize the Content of a Directory with Your Amazon S3 bucket
- ➤ AWS Pilot Light
- ➤ Compliance in AWS
- ➤ Disaster Recovery
- ➤ Warm Standby
- ➤ Multi-Site Setup
- ➤ Key Takeaways
- ➤ Knowledge Check

Lesson 07 - High Availability

- ➤ High Availability
- ➤ Scalability and Elasticity Essentials
- ➤ Elastic Load Balancing
- ➤ Configure Load Balancer
- ➤ High Availability of Multi-AZ for Amazon RDS
- ➤ Auto Scaling
- ➤ Create and Update Auto Scaling
- ➤ Auto Scaling: Examples
- ➤ Capacity Thrashing, Life Cycle Hooks, and Scaling
- ➤ Configure an AutoScaling group
- ➤ SQS and SNS Scalability

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- Amazon Route 5305:02
- Troubleshooting Scalable Deployments
- Demo: Create an AutoScaling Group and Add a Scheduled Action for it
- Key Takeaways
- Knowledge Check

Lesson 08 - Deployment and Provisioning

- Deployment and Provisioning
- Elastic Load Balancing
- Demo: Working of ALB
- Lambda and ECS Deployments
- Demo: Deploy a Dockerized Application on an ECS Cluster
- RDS and DynamoDB Deployments
- S3 Provisioning and EFS Deployment
- Demo: Mount EFS to an Instance
- LightSail and Batch
- Demo: Deploy an Application Using Elastic Beanstalk
- Deployment Automation
- AWS OpsWorks
- Demo: Deploy an Application Using OpsWork
- Demo: CloudFormation
- CloudFormation Using a Sample Template
- CloudFormation Template and Stacks
- Components of CloudFormation
- CloudFormation Errors and Template
- Demo: Debug a CloudFormation Template
- Key Takeaways

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➢ Knowledge Check

Lesson 09 - Best Practices for AWS SysOps Administrator Associate

➢ Best Practices for AWS SysOps Administrator - Associate

➢ Implementing Monitoring Plan

➢ Key Takeaways

Practice Projects

➢ Create Custom VPC

Course-end Project:

Project 1:

Create a small Linux instance and deploy a PHP application to it. Prerequisites to run the application are apache (httpd) + mod_php. Application is uploaded to an S3 bucket. Deploy the application to a secure, load balanced environment.