AWS Certified SysOps Administrator Associate

About Course

Sunshine Learning & Technologies, map out this AWS SysOps Administrator Associate training for those who are interested in learning to deploy, operate and manage scalable, highly available and fault tolerant systems on Amazon Web Services. After this course, you'll be prepared to pass the latest released associate level AWS Certified SysOps Administrator. Aspirants will learn different AWS products including CloudWatch, Elastic Load Balancer, EC2, RDS, VPC, Network ACLs, Security Groups, DDOS, S3, KMS, IAM, Systems Manager, Route53, Direct Connect and Cloud Formation. We recommend before joining this course, clear the AWS Certified Solutions Architect Associate exam or aspirants should have working experience as an AWS SysOps Administrator.

Responsiblities of AWS SysOps Administrator

The AWS SysOps Administrators are responsible for managing, using and operating systems on the AWS platform. They also are responsible for maintaining and managing the AWS infrastructure company and managing the bills and optimize the costs.

How hard is AWS SysOps certification?

AWS SysOps certification is considered as the toughest one among all the associate level AWS certifications. So if you want to pass this certification exam, you need to prepare well. This exam tests your knowledge of how to deploy and configure each service in the cloud environment.

AWS Certified SysOps Administrator Associate Training Curriculum:

Getting Started :-

- Introduction
- AWS Identity and Access Management (IAM)
- Amazon Virtual Private Cloud (VPC)
- AWS Public & Private Services
- Security groups & Network ACLs
- Stateful & Stateless Firewalls
- The AWS Shared Responsibility Model
- Installing the CLI and Code Editor

Compute Amazon EC2 & AWS Lambda

- Introduction
- Amazon EC2 instances
- Launching and Terminating EC2 Instances
- Modifying EC2 Instances Types
- Amazon EC2 Placement Groups
- Amazon EC2 Pricing Models
- Reserved Instances and Dedicated Hosts
- Choosing an EC2 Pricing Model
- Public Private and Elastic IP addresses
- Elastic Network Interfaces
- Authenticating to AWS Services using Access Keys
- Authenticating to AWS Services using IAM Roles
- Create instance profile and assign IAM role using the CLI
- Private Subnets and Bastion Hosts
- NAT gateways and NAT instances
- Create a NAT Gateway
- Amazon CloudWatch metrics for Amazon EC2
- Publish CloudWatch Metric Manually
- Automatically reporting memory usage with a script
- Unified CloudWatch Agent for Amazon EC2
- IAM Policy Examples for Amazon EC2
- AWS Lambda serverless functions
- Create and invoke a serverless Lambda function using Amazon SNS
- Configure Lambda function to run on a schedule
- Exam scenarios for EC2 and Lambda

Scaling Compute: Elastic Load Balancing and Auto Scaling

- Introduction
- High availability with Elastic Load Balancing (ALB and NLB)
- Create an Application Load Balancer (ALB)
- Path-based routing and host-based routing
- Enable Sticky Sessions on an ELB
- [NEW] Sticky Session Configuration Options
- Security Groups for Amazon ELB
- EC2 Auto Scaling, launch configurations, and launch templates
- Auto Scaling health checks (ASG and ELB)
- ASG scaling and termination policies
- Add scaling policy and cause scaling events
- EC2 Auto Scaling lifecycle hooks
- Monitoring and Logging for ELB and EC2 Auto Scaling

- Cleaning up
- Exam scenarios for ELB and EC2 Auto Scaling

Storage: Amazon EBS, EFS and AWS Storage Gateway

- Introduction
- Amazon EBS Overview
- Amazon EBS - Deployment and Volume Types
- Creating and resizing Amazon EBS volumes
- Amazon EBS snapshots, AMIs and migrating instances
- Amazon EBS Copying, Sharing and Encryption
- EBS vs instance store
- Using RAID with EBS volumes
- EBS encryption
- [NEW] CloudWatch Metrics for EBS
- Monitoring EBS volumes with Amazon CloudWatch
- [NEW] Amazon Data Lifecycle Manager (DLM)
- Amazon EFS Overview
- Creating and mounting an EFS filesystem
- IAM Policy Examples for Amazon EFS
- Monitoring EFS volumes
- [NEW] Amazon EFS Encryption
- AWS Storage Gateway - File Gateway
- AWS Storage Gateway - Volume Gateway
- AWS Storage Gateway - Tape Gateway
- Exam scenarios for EBS, EFS, and AWS Storage Gateway

Operations: AWS Systems Manager and OpsWorks

- Introduction
- AWS Systems Manager Overview
- Create Tags and Resource Groups
- Systems Manager Automation
- Systems Manager Run Command
- Systems Manager Inventory and Patching EC2 Instances
- Systems Manager Configuration Compliance
- Systems Manager Secure Shell
- Systems Manager Parameter Store Overview
- Systems Manager Parameter Store with Lambda
- [NEW] AWS Secrets Manager
- AWS OpsWorks
- Cleaning Up
- Exam Scenarios for Systems Manager and OpsWorks

Automation: AWS Elastic Beanstalk

- Introduction
- AWS Elastic Beanstalk Overview
- Create Single Elastic Beanstalk Environment
- Troubleshooting Elastic Beanstalk Launch Issues
- Elastic Beanstalk Deployment Options
- Create environment for App v2 and swap URLs
- Using custom domains with Elastic Beanstalk
- Elastic Beanstalk Worker Tiers
- High Availability with Elastic Beanstalk
- Monitoring and Logging for Elastic Beanstalk

Infrastructure Automation: AWS CloudFormation

- Introduction
- AWS CloudFormation overview
- Templates, Stacks, and Stack Sets
- Creating and updating Stacks
- Template Basics
- Working with mappings and parameters
- Deploying Nested Stacks
- Change Sets and Drift Detection
- User data with EC2
- CloudFormation helper scripts (cfn-init and cfn-signal)
- Creation and Deletion Policies, DependsOn, and WaitConditions
- Rollbacks and Stack creation failures
- Exam Scenarios for CloudFormation

Networking: Amazon VPC

- Introduction
- Amazon VPC Refresher
- [NEW] Availability Zone IDs
- CIDR Blocks and IP Subnets
- Create custom VPC
- Internet Gateway and Route Tables
- NAT Gateways and NAT Instances Refresher
- Security Groups Deep Dive
- Network ACL Deep Dive
- VPC Endpoints
- Creating Gateway and Interface Endpoints
- VPC Peering

- Create VPC Peering Connection
- AWS VPN and Direct Connect
- VPC Flow Logs
- Use Amazon Athena to Query our Flow Logs
- Exam Scenarios for Amazon VPC

DNS: Amazon Route 53

- Introduction
- Amazon Route 53 Overview
- Amazon Route 53 Record Types
- Amazon Route 53 Routing Policies
- Creating Amazon Route 53 Records
- Amazon Route 53 Health Checks
- Exam Scenarios for Amazon Route 53

Object Storage and Content Delivery: S3 and CloudFront

- Introduction
- Amazon S3 Overview
- Amazon S3 Storage Classes
- Amazon S3 Versioning
- MFA Delete and MFA-Protected API Access
- Amazon S3 Lifecycle Policies
- S3 Replication (CRR and SRR)
- S3 Access Control- IAM Policies
- S3 Access Control - Bucket Policies
- S3 Access Control - Bucket ACLs
- S3 Encryption
- Pre-signed URLs
- Creating an Amazon S3 Static Website
- S3 Transfer Acceleration
- S3 Inventory
- Server Access Logging
- S3 Event Notifications
- S3 Analytics and Metrics
- Glacier Vault Lock and Vault Access Policies
- S3 & Glacier Select
- Amazon CloudFront Overview and Origins
- Amazon CloudFront with S3 Static Website and OAI
- [NEW] Improving the Cache Hit Ratio
- Exam Scenarios for S3 and CloudFront

Databases & Analytics

- Introduction
- Amazon RDS Overview
- Amazon RDS Scaling Up and Scaling Out
- Launch an Amazon RDS Database
- Amazon RDS Read Replicas
- Amazon RDS Multi-AZ
- RDS Automated Backups and Snapshots
- RDS Maintenance Windows
- RDS Encryption
- RDS Monitoring and Logging
- Amazon Aurora Overview
- Amazon Aurora Deployment Options
- [NEW] Aurora Auto Scaling
- Amazon ElastiCache Overview
- Scaling ElastiCache Memcached
- Scaling ElastiCache Redis
- ElastiCache Backup and Monitoring
- [NEW] Amazon ElastiCache Metrics
- [NEW] Amazon DynamoDB
- [NEW] Amazon Elasticsearch
- Exam Scenarios RDS and ElastiCache

Management, Governance. and Billing

- Introduction
- AWS Organizations Overview
- Service Control Policies (SCPs)
- SCP Strategies and Inheritance
- Create and attach SCPs
- [NEW] AWS Organizations Policies
- Amazon CloudWatch Key Concepts
- CloudWatch Logs and Events
- Track EC2 Termination Events
- AWS CloudTrail
- AWS Config Overview
- Create custom Config rule
- AWS Service Catalog
- AWS Trusted Advisor
- Health Dashboards
- AWS Cost Management Tools
- Exam Scenarios for Management, Governance and Billing

Security, Identity, and Compliance

- Introduction
- AWS IAM - Multi-Factor Authentication
- [NEW] Using MFA with the AWS CLI
- AWS Managed and Customer Managed IAM Policies
- IAM Policy Examples
- IAM Policy Evaluation Logic
- Amazon Inspector
- Encryption Overview
- AWS Key Management Service (KMS)
- AWS CloudHSM
- AWS Certificate Manager
- [NEW] Certificate Renewal with ACM
- AWS WAF & Shield
- AWS Artifact
- Directory Services and Federation
- Exam Scenarios for Security and Compliance

Full Length Practice Exam

AWS Certified SysOps Administrator Practice Exam

Additional Training Resources

Bonus Lesson

Hands On

There will be separate Hands-On on separate topics.