

**INTRODUCTION | DATABASE ADMINISTRATION |
NETWORK | APP ADMINISTRATION | STORAGE
ADMINISTRATION | SECURITY ADMINISTRATION |
MONITORING AND NOTIFICATION**

QUOTATION AND COURSE OUTLINE

AWS SYSOPS ADMINISTRATOR- ASSOCIATES COURSE

EXAM SOA-C01 AWS CERTIFIED SYSOPS ADMINISTRATOR ASSOCIATES

Operations Learning Path



Course Materials

TechPledge will provide a customized set of Lecture Notes for each class scheduled along with Recorded video. You will be given a PDF file which you may make copies from, email to your participants, or make available via internal website.

Learning Path for SysOps Administrator

AWS SysOps Administrator must have skills needed to manage and administer the services that run on AWS. An Amazon AWS SysOps Administrator must have expertise in Administering and managing the complete solutions using AWS components like compute, network, storage, Database, AWS Cli , security , Costing . At the TechPledge we provide the training which is always updated in line with the AWS SysOps Administrator Skills required by the industry and recommended by Amazon. Below is the patch for training

Evolve your Implementation Skills



- *AWS architecture and service guarantees*
- *Manage services with AWS console*
- *Security, responsibility and trust in AWS*
- *Apply and monitor infrastructure standards with AWS Policy.*
- *Control and organize AWS resources with Resource Tag*

Manage Resources in AWS



- *Align requirements with cloud types and service models in AWS*
- *Control AWS services with the CLI*
- *Automate AWS tasks*
- *Predict costs and optimize spending for AWS*
- *Control and organize AWS resources with Resource Tag*

Administering the AWS Services



- *Pillars of a great AWS Administration*
- *Manage for security in AWS*
- *Manage performance and scalability in AWS*
- *Effectively monitor the resources security, cost and performance*
- *Manage availability and recoverability in AWS*

Abilities Validated by the Certification

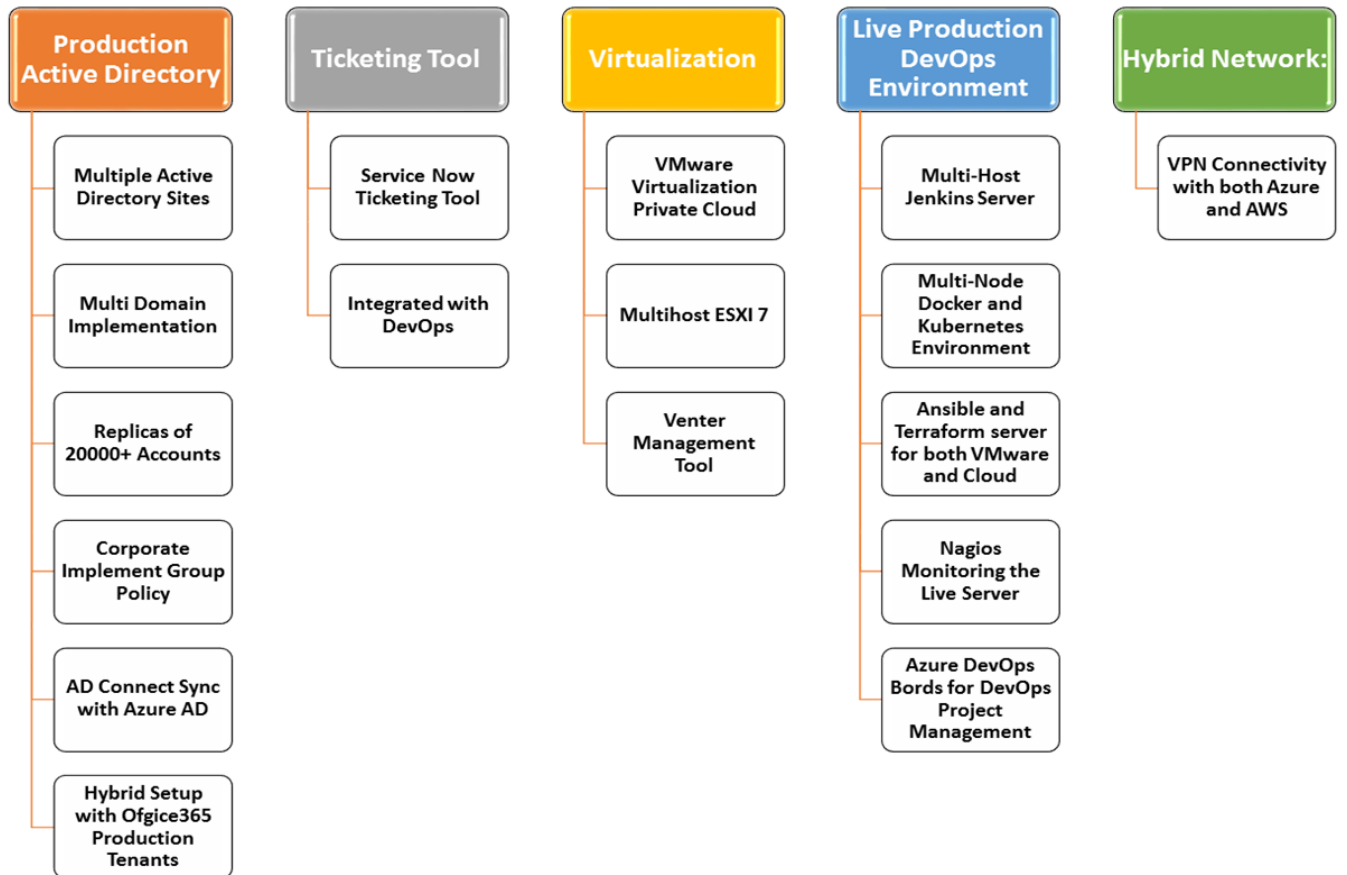
- Deploy, manage, and operate scalable, highly available, and fault-tolerant systems on AWS
 - Implement and control the flow of data to and from AWS
 - Select the appropriate AWS service based on compute, data, or security requirements
 - Identify appropriate use of AWS operational best practices
 - Estimate AWS usage costs and identify operational cost control mechanisms
 - Understand the Hybrid Scenario
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Customer Immersion – Live Production Walkthrough

6 Hours Live walkthrough the complete Infrastructure Integration and Migration Process in production environment with full setup of Infrastructure Like **AD, Microsoft SQL , Microsoft Exchange, File Server , ADFS and** DevOps Tool Like **Jenkins , Ansible , Docker , AWS Code Deploy , AWS Code Pipeline , AWS Code Deploy and AWS CLI** and Development Environment with Maven, Visual Studio and Python.

The Complete Setups is using **100** of **PowerShell & Linux Script** with **237 CI/CD scripts** (Jason, Yamal).

Below is the High-Level Setup Outline of our Customer Immersion Production Replicas. Student will get the access of this setup at end of the course for 6 hours with AD ID and Organization Email.



Learn while doing with our Sandbox Environment



Azure Sandbox

- Connect with Azure Portal through the TechPledge Provide sandbox environment and play with it will all labs which you want to try.
- Create, destroy, and build Practical, scenario-based applications with ease. Our pre-configured, auto-provisioned servers allow you to try new skills, risk-free.



AWS Sandbox

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Course Outline

Introduction to AWS and Solution Architect

- Solution Architect Organization
- Overview of Administration Tool – Console, CLI, Script
- AWS Overview
- History and Evolution of AWS
- AWS Regions
- Overview of AWS Services

Elastic Compute Cloud (EC2)

- Introduction to Elastic Compute Cloud (EC2)
- Launching EC2 server
- Elastic Block Store (EBS)
- Elastic IP creation
- Amazon Machine Image (AMI)
- Snapshots creation from Volume
- Elastic Load Balancing (ELB)
- EC2 Best Practices and Costs
- **Lab:** Launch a Windows and Linux VM
- **Lab:** Create Snapshot image and Launch VM using that Image

AWS Storage

- Introduction to Cloud Storage
- Create and Manage S3 Storage
- Use S3 Explorer to manage S3
- S3 Life cycle
- Create and Manage S3 Glacier
- Use Fast Glacier to manage Glacier Storage
- Introduction to AWS Snowball
- **Lab:** Create an S3 Bucket and access using S3 Explorer
- **Lab:** Create an S3 Glacier and access using Fast Glacier

Identity and Access Management (IAM)

- Introduction to Identity and Access Management (IAM)
- Creating users and Groups
- Creating Custom policies
- Giving access to users to services using custom policies
- IAM Emulator
- IAM Best Practices
- **Lab:** Create a User & Group and assign Roles to Access S3 Storage

Amazon Virtual Private Cloud (VPC)

- IP Schemas and CIDR
- Amazon Virtual Private Cloud (VPC)
- Amazon VPC and Subnets
- Amazon Routing
- Internet Gateway
- Using Security Groups and Network ACLs
- Amazon VPC Best Practices and Costs
- **Lab:** Create a VPC and Subnets and Place a server

AWS CLI

- Install AWS CLI
- Login to AWS using CLI
- Understand the CLI output format
- CLI command Module
- **Lab:** Create Storage and VM using AWS CLI

AWS Cloud Front

- Introduction to CDN
- Configure S3 to host static web site
- Create Cloud Front to publish web site over CDN
- Customer domain overview
- **Lab:** Host an Image in S3, Create CDN to access it using cache copy

Auto Scaling

- Elastic Load Balancer (ELB)
- Introduction to Auto Scaling
- Creating Launch Configuration with AMI
- Creating Auto Scaling group
- Testing the auto scaling with online load testing tool
- **Lab:** Create an Autoscaling Group and Launch VM using Autoscaling

Database Solutions on AWS

- Introduction to Relational Database Service (RDS)
- Creating RDS MySQL instance
- Connect MySQL Instance with Workbench
- Introduction NoSQL
- Creating Amazon DynamoDB
- Database Best Practices and Costs
- **Lab:** Create a MySQL Instance and Access using MySQL workbench
- **Lab:** Create a DynamoDB Instance and Access using MySQL workbench

AWS Monitoring & Security Services

- Security Practices for Optimum Cloud Deployment
- AWS Responsibilities Matrix
- Introduction to Cloud Watch
- Creating alarm using Cloud Watch

- Simple Notification Service (SNS)
- Lambda Function
- **Lab:** Create SNS and Lambda Function for Implement the notification
- **Lab:** Configure an alert in cloud watch
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AWS Disaster Recovery and Migration

- Disaster recovery Scenario with AWS
- How to design HA with services
- AWS Backup
- **Lab:** Create a Backup for EC2 Volume Disk

AWS Cost Management

- AWS Agreement overview
- Review the Billing and Analyze the Spend
- Create Estimate of annual commitment
- **Lab:** Create a Budget for Spending

Project:

Project Title: Migration of On-Prem server to AWS

Project Description:

- TPCS an Renowned Company based out of USA approached TechPledge Consulting regarding migrating one of their datacenter facilities to Amazon AWS.
- In this transformation. However, the TPCS had limited experience in migrating services from on-premise facilities into Amazon AWS, particularly at this scale. The TPCS engaged with TechPledge Consulting for both technical guidance and business support for the migration.

Course Fee

Call for Price