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Microsoft Azure

aws

Azure Admin + AWS

Azure Administrator + AWS Combo Course

✚ Course Overview:

If you work in Amazon Web Services, you'll want to get productive in Microsoft Azure. This course teaches you how to map all your AWS services to their Azure counterparts, and how to perform the most important AWS administrative tasks in Azure. You are most likely an Amazon Web Services (AWS) administrator, developer, or architect. The problem you face is that you need to transfer your knowledge to Microsoft Azure as quickly as possible. Welcome! In this course, Microsoft Azure Administration for AWS Administrators, you'll learn how to map your AWS services to their Azure counterparts. Then, you'll explore how to perform your most important AWS tasks in Azure. Finally, you will emerge from this course with a well-rounded understanding of the similarities and differences between AWS and Azure. By the end of this course, you'll know how to map all your AWS services to their Azure counterparts, and how to perform the most important AWS administrative tasks in Azure.

✚ Course Outline:

Azure Administrator (AZ -104)

Manage Azure identities and governance

1. Manage Azure AD objects

- ➢ create users and groups
- ➢ manage user and group properties
- ➢ manage device settings
- ➢ perform bulk user updates
- ➢ manage guest accounts
- ➢ configure Azure AD Join
- ➢ configure self-service password reset
- ➢ NOT: Azure AD Connect; PIM

2. Manage role-based access control (RBAC)

- ➢ create a custom role
- ➢ provide access to Azure resources by assigning roles
  - o subscriptions
  - o resource groups
  - o resources (VM, disk, etc.)

- ➢ interpret access assignments
- ➢ manage multiple directories

3. Manage subscriptions and governance

- ➢ configure Azure policies
- ➢ configure resource locks
- ➢ apply tags
- ➢ create and manage resource groups
    - ○ move resources
    - ○ remove RGs
- ➢ manage subscriptions
- ➢ configure Cost Management
- ➢ configure management groups

Implement and manage storage

1. Manage storage accounts

- ➢ configure network access to storage accounts
- ➢ create and configure storage accounts
- ➢ generate shared access signature
- ➢ manage access keys
- ➢ implement Azure storage replication
- ➢ configure Azure AD Authentication for a storage account

2. Manage data in Azure Storage

- ➢ export from Azure job
- ➢ import into Azure job
- ➢ install and use Azure Storage Explorer
- ➢ copy data by using AZCopy

3. Configure Azure files and Azure blob storage

- ➢ create an Azure file share
- ➢ create and configure Azure File Sync service
- ➢ configure Azure blob storage
- ➢ configure storage tiers for Azure blobs

Deploy and manage Azure compute resources

1. Configure VMs for high availability and scalability

- ➢ configure high availability
- ➢ deploy and configure scale sets

2. Automate deployment and configuration of VMs

- ➢ modify Azure Resource Manager (ARM) template
- ➢ configure VHD template
- ➢ deploy from template
- ➢ save a deployment as an ARM template
- ➢ automate configuration management by using custom script extensions

3. Create and configure VMs

- ➢ configure Azure Disk Encryption
- ➢ move VMs from one resource group to another
- ➢ manage VM sizes
- ➢ add data discs
- ➢ configure networking
- ➢ redeploy VMs

4. Create and configure containers

- ➢ create and configure Azure Kubernetes Service (AKS)
- ➢ create and configure Azure Container Instances (ACI)
- ➢ NOT: selecting an container solution architecture or product; container registry settings

5. Create and configure Web Apps

- ➢ create and configure App Service
- ➢ create and configure App Service Plans
- ➢ NOT: Azure Functions; Logic Apps; Event Grid

Configure and manage virtual networking

1. Implement and manage virtual networking

- ➢ create and configure VNET peering
- ➢ configure private and public IP addresses, network routes, network interface, subnets, and virtual network

2. Configure name resolution

- ➢ configure Azure DNS
- ➢ configure custom DNS settings
- ➢ configure a private or public DNS zone

3. Secure access to virtual networks

- ➢ create security rules
- ➢ associate an NSG to a subnet or network interface
- ➢ evaluate effective security rules
- ➢ deploy and configure Azure Firewall
- ➢ deploy and configure Azure Bastion Service
- ➢ NOT: Implement Application Security Groups; DDoS

4. Configure load balancing

- ➢ configure Application Gateway
- ➢ configure an internal load balancer
- ➢ configure load balancing rules
- ➢ configure a public load balancer
- ➢ troubleshoot load balancing
- ➢ NOT: Traffic Manager and FrontDoor and PrivateLink

5. Monitor and troubleshoot virtual networking

- ➢ monitor on-premises connectivity
- ➢ use Network Performance Monitor
- ➢ use Network Watcher
- ➢ troubleshoot external networking
- ➢ troubleshoot virtual network connectivity

6. Integrate an on-premises network with an Azure virtual network

- ➢ create and configure Azure VPN Gateway
- ➢ create and configure VPNs
- ➢ configure ExpressRoute
- ➢ configure Azure Virtual WAN

Monitor and back up Azure resources

1. Monitor resources by using Azure Monitor

- configure and interpret metrics
  - analyze metrics across subscriptions
- configure Log Analytics
  - implement a Log Analytics workspace
  - configure diagnostic settings
- query and analyze logs
  - create a query
  - save a query to the dashboard
  - interpret graphs
- set up alerts and actions
  - create and test alerts
  - create action groups
  - view alerts in Azure Monitor
  - analyze alerts across subscriptions
- configure Application Insights
- NOT: Network monitoring

2. Implement backup and recovery

- configure and review backup reports
- perform backup and restore operations by using Azure Backup Service
- create a Recovery Services Vault
  - use soft delete to recover Azure VMs
- create and configure backup policy
- perform site-to-site recovery by using Azure Site Recovery
- NOT: SQL or HANA

AWS Certified Solutions Architect – Associate (SAA-C02)

➕ Course Outline:

1. Fundamentals of Cloud Computing

- Course Introduction
- Introduction of Cloud Computing
- Key characteristics of Cloud Computing
- Cloud Analogy
- Cloud Computing Service Models

- ➤ Cloud Computing Deployment Models
- ➤ Comparison between Cloud and Legacy IT systems
- ➤ Advantages of Cloud Computing

2. AWS Cloud Overview

- ➤ Introduction to AWS Cloud
- ➤ History of AWS Cloud
- ➤ Global Infrastructure of AWS
- ➤ AWS Service scope in this course
- ➤ AWS Global vs. Regional Services
- ➤ Overview on Billing and Pricing

3. AWS Free Tier Account

- ➤ Introduction
- ➤ AWS Free Tier Account Creation
- ➤ Basic account Setting & Management
- ➤ Setting up Billing Alarm & Budget
- ➤ Activate MFA on Root Account

4. AWS IAM: Security & Authentication

- ➤ Introduction to Identity & Access Management
- ➤ Components of IAM
- ➤ Creating and Managing Users & Groups
- ➤ Creating and Managing IAM Policies
- ➤ Roles and its use cases
- ➤ Multi-Factor Authentication - [MFA]
- ➤ Security Token Service [STS]
- ➤ Security Features in IAM
- ➤ Best Practices of IAM
- ➤ Pricing

5. AWS Compute (EC2, ECS, Lambda and Lightsail)

- ➤ Introduction to EC2
- ➤ EC2 vs. Traditional Servers
- ➤ Introduction to Elastic Cloud Compute (EC2)
- ➤ Amazon Machine Images (AMI) and its Uses
- ➤ Configuring EC2 Instance and its types

- ➤ Security Groups - Creation & Management
- ➤ Launching & Connecting to EC2 instance (Hands On)
- ➤ Instance User Data and Instance Metadata
- ➤ Instance User Data and Instance Metadata (Hands On)
- ➤ Setting up a web server on EC2 Instance - Hosting a website
- ➤ Amazon Elastic Container Service(ECS)
- ➤ AWS Lambda (Serverless Computing)
- ➤ AWS Lambda Hands On
- ➤ Amazon Lightsail
- ➤ Amazon Lightsail Hands on (create Lightsail WordPress Site)
- ➤ Pricing

6. AWS Load Balancers and Auto Scaling Configuration

- ➤ Introduction
- ➤ Types of Load Balancer in AWS
- ➤ Important Components of Load Balancer
- ➤ How Health-Check Works for Load Balancer
- ➤ Creating and Configuring Application Load Balancer (Hands On)
- ➤ Understanding Launch Configuration and AutoScaling Group
- ➤ Creating and Configuring Autoscaling group (Hands On)
- ➤ Pricing

7. AWS Storage (S3, EFS and Storage Gateway)

- ➤ Introduction to Storage services
- ➤ Difference Between Object, Block and File Storage
- ➤ Introduction to Simple Storage Service (S3)
- ➤ S3 Storage Classes (or Tiers)
- ➤ S3 Consistency model
- ➤ Important Properties, Permissions and Management of S3 bucket
- ➤ Versioning of Objects
- ➤ Hosting a static-website in S3 (Hands On)
- ➤ Cross-Region & Same Region replication in S3
- ➤ S3 Transfer Acceleration
- ➤ Security feature of S3-Encryption, Bucket Policy and Permissions
- ➤ Storage Pricing
- ➤ Launch EC2 instance with IAM role and view data
- ➤ Amazon Elastic Block Store (EBS)
- ➤ AWS EBS Volume types

- ➢ Amazon EBS snapshots
- ➢ Instance Store Volumes
- ➢ Take snapshot, create AMI and Launch new Instance
- ➢ AWS Elastic File System (EFS)
- ➢ Create and mount EFS (Hands On)
- ➢ AWS Storage Gateway
- ➢ Pricing (Block store, EFS and Storage Gateway)

8. AWS Virtual Private Cloud (VPC)

- ➢ Introduction
- ➢ Amazon VPC
- ➢ Amazon VPC console Walkthrough Hands On
- ➢ Create Custom VPC Hands On
- ➢ IP Address and CIDR Block concepts
- ➢ Subnet and Route Tables
- ➢ Public, Private and Elastic IP addresses
- ➢ Internet Gateway and NAT
- ➢ Creating and managing NAT Gateways and NAT Instances
- ➢ Network Access Control List - NACL
- ➢ VPC Peering and VPC Endpoints
- ➢ Securely Connecting to the VPC
- ➢ VPN and CGW

9. AWS Relational Database Services (RDS)

- ➢ Introduction to RDS
- ➢ Components of RDS
- ➢ DB engines provided by RDS
- ➢ Snapshots and Back-up in RDS
- ➢ Read Replicas in RDS
- ➢ Creating and connecting to a RDS database
- ➢ RDS Security Groups
- ➢ Amazon DynamoDB
- ➢ Amazon DynamoDB Table Hands On
- ➢ Amazon Redshift

- ➤ Amazon Elasticache
- ➤ Limitations and Best Practice – RDS
- ➤ Pricing in RDS

10. AWS Content Delivery

- ➤ Introduction to CloudFront
- ➤ Create CloudFront Distribution with S3 Bucket (Hands On)
- ➤ CloudFront Caching, Caching Invalidations and Cache Hit Ratio
- ➤ Pricing

11. AWS Monitoring and Logging services

- ➤ Introduction
- ➤ Important Components of CloudWatch
- ➤ Create and view Alarms & Events in CloudWatch
- ➤ Amazon CloudTrail
- ➤ Create and view CloudTrail records
- ➤ Limitations and Best Practices
- ➤ Pricing

12. AWS Automation and Platform services
- ➤ Introduction to Cloud Automation
- ➤ CloudFormation introduction
- ➤ CloudFormation Stack creation Hands On
- ➤ Understanding Beanstalk
- ➤ Benefits of Beanstalk
- ➤ Create/ Deploy PHP application with Beanstalk service
- ➤ Pricing

13. AWS Migration and Data Transfer services

- ➢ Introduction
- ➢ AWS Data Migration Service
- ➢ AWS Server Migration Service
- ➢ AWS Snowball
- ➢ AWS Snowmobile
- ➢ AWS Migration Hub

14. AWS Cloud Security and Encryption

- ➢ AWS Security Overview
- ➢ AWS Shared Security Responsibility Model
- ➢ AWS Cloud Compliance and AWS Artifact
- ➢ AWS Config
- ➢ KMS and CloudHSM
- ➢ AWS Inspector and Trusted Advisor
- ➢ AWS Personal Health Dashboard
- ➢ AWS WAF & Shield
- ➢ AWS Direct Connect
- ➢ IAM Identity Providers and Federation
- ➢ AWS Single Sign-on
- ➢ AWS Directory Service
- ➢ AWS Macie
- ➢ Use cases and Pricing

15. AWS DNS Service and Routing Policies

- ➢ Introduction to Route53
- ➢ How Route53 Works
- ➢ Domain Registration in Route53
- ➢ Health Checks in Route53
- ➢ Routing Policies in Route53
- ➢ Creating and Managing different Routing Policies
- ➢ Records Sets supported by Route53
- ➢ Alarms and Notifications in Route53
- ➢ Limitations & Best Practices in Route53

> Pricing - Route53

16. DynamoDB, AWS NoSQL Database Service

> Difference between SQL and NoSQL
> Components of DynamoDB
> AutoScaling in DynamoDB
> DynamoDB Streams
> Primary and Secondary Indexing in DynamoDB
> Data Distribution in DynamoDB
> Backup and Monitoring in DynamoDB
> Creating Table and loading data into DynamoDB
> Best Practices – DynamoDB
> Pricing in DynamoDB

17. AWS Cloud Management Services

> Understanding and configuring Trusted Advisor
> Understanding and configuring Config
> Understanding and configuring AWS System Manager
> Use Cases
> Pricing

18. AWS AWS SNS, Notification Service

> How SNS Works?
> Important Components of SNS
> Creating and Managing Topics in SNS
> Adding Subscriber in SNS
> Managing SNS Policies
> Pricing in SNS

19. AWS Kinesis

> Types of Data Streaming in Kinesis
> Kinesis Firehose and its Architecture

- ➢ Kinesis Analytics and its Architecture
- ➢ Best Practice in Kinesis
- ➢ Use cases
- ➢ Pricing in Kinesis

20. AWS CLI, Amazon Command Line Interface

- ➢ Setting-Up AWS CLI on local machine
- ➢ Creating Users and groups using AWS CLI
- ➢ Creating & Managing Policy using AWS CLI
- ➢ Creating and Managing IAM Roles using AWS CLI
- ➢ AWS CLI Command Syntax walkthrough

21. AWS SQS

- ➢ How SQS Works - Architectural Walkthrough
- ➢ Important Components of SQS
- ➢ Pricing in SQS
- ➢ Best Practice - SQS

22. AWS Billing and Pricing

- ➢ Introduction
- ➢ AWS Budgets and Cost Explorer
- ➢ AWS Monthly Cost Calculator and TCO
- ➢ AWS Monthly Cost Calculation with an example
- ➢ AWS Support Plans
- ➢ AWS Resource grouping and Tagging
- ➢ AWS Organization and Consolidated Billing
- ➢ Pricing discussed as per modules above

✚ Prerequisites:
- • The Azure Administrator certification course requires professionals to be proficient in using PowerShell and the Command Line Interface.

- Should also have prior experience with Azure Portal, ARM templates, operating systems, virtualization, cloud infrastructure, storage structures, and networking.

- A basic knowledge of windows administration and networking knowledge.
- A Basic Knowledge of linux administration

Who Should Attend:

- Those who want to pursue the Azure Administrator certification
- Those who want to pass the Microsoft exam AZ-104
- The Azure Administrator course is best suited for Azure administrators and engineers, system administrators looking to expand into Azure, and IT professionals.

Number of Hours: 90hrs

Certification: AZ-104 & SAAC02

Key Features:
- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification