

# COURSE OUTLINE

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# Microsoft Azure for AWS Experts

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## Module 1: Microsoft Azure for AWS Experts Course Overview (Optional)

In this module, you will get an overview of Azure services and features including deployment models, subscriptions, account types and how to navigate the Azure portals. Also covered are other aspects of the Azure infrastructure and how it compares to AWS. This module can be used as a quick reference later if there are any questions about Azure terms or services. This module should be considered optional based on the level of student interest and knowledge interest in the topics taking the course.

### Lessons

- Microsoft Azure
- Availability
- Accessing Azure
- Quick References-Azure Services

After completing this module, students will be able to:

- Identify key features and services of Microsoft Azure
- Identify key Availability features of Microsoft Azure and how they compare to AWS
- Identify tools to manage Microsoft Azure including account management

## Module 2: AWS and Azure

In this module, you will learn key benefits of Microsoft Azure and compares these features and services with AWS as appropriate and how each cloud solution provides these services. Side by side comparisons are done to enable the students to determine for themselves which services meets their needs better including costs.

### Lessons

- AWS and Azure Comparison
- Pricing

After completing this module, students will be able to:

- Compare key features and services of Microsoft Azure and AWS
- Identify key Availability features of Microsoft Azure and how they compare to AWS
- Identify tools to compare and managing costs of various Microsoft Azure services

### **Module 3: Linux in Azure**

In this module, you will learn about Linux and 3rd party OSS technology support in Microsoft Azure to include cost, management and deployment tools. Some key technology solutions from Microsoft Azure Partners are discussed to provide students with more information about the extensibility of Azure services. Additional references are given to the students to enable them to research on their own.

#### **Lessons**

- Linux and OSS Support
- Linux Distributions
- Automation

After completing this module, students will be able to:

- Identify OSS & 3rd party support on Microsoft Azure
- Identify Linux support and implementations on Microsoft Azure
- Identify tools for automating deployments from Microsoft and 3rd party

### **Module 4: Virtual Machines**

In this module, you will learn how to implement and manage Microsoft Azure virtual machines to include Microsoft Windows operating systems and Linux Virtual machines. You will also learn to manage your virtual machine storage, and migrate virtual machines from AWS to Microsoft Azure.

#### **Lessons**

- Virtual Machines
- Linux Virtual Machines
- Migrating VMs from AWS to Azure
- Virtual Machine Storage

#### **Lab : Creating a Linux Virtual Machine**

- Create Cryptographic Keys
- Create and Connect to a Linux Virtual Machine

#### **Lab : Configuring Linux Azure Virtual Machine Storage**

- Add virtual disks to an Linux VM
- Create a RAID stripe set within an Azure Linux VM

### **Lab : Creating a Microsoft Azure Virtual Machine**

- Creating a Microsoft Azure Virtual Machine

### **Lab : Attaching Additional Storage using the Portal**

- Configuring Settings on the Virtual Machine

### **Lab : Managing Azure Storage**

- Managing Azure Storage

After completing this module, students will be able to:

- Plan, Configure and support virtual machines.
- Compare billing and machine models
- Compare AWS and Microsoft Azure virtual machine technologies
- Create a Linux virtual machine
- Create a Windows virtual machine
- Migrate virtual machines from AWS to Azure
- Manage Azure Storage

## **Module 5: Virtual Networking**

In this module, you will learn about Azure Virtual Networking. In it we discuss the various components and learn how to create and secure a virtual network in Azure. This module also compares Amazon Virtual Private Cloud (VPC) & Azure Virtual Network. You will also learn about configuring connectivity between sites and providing availability.

### **Lessons**

- Virtual Networking
- Azure Virtual Networks
- Creating a Virtual Network
- Network Security Groups
- Cross-premises Connection
- Network Availability

### **Lab : Configuring User Defined Routes**

- Setting up the Lab Environment

- Configuring User Defined Routes

**Lab : Configuring VNet Peering**

- Create the lab Virtual Machine by using the Azure Portal
- Configure VNet peering by using the Azure portal

**Lab : Deploying a GEO-Redundant Solution with Traffic Manager**

- Deploying a Geo-Redundant Solution with Traffic Manager

After completing this module, students will be able to:

- Describe virtual networks and ExpressRoute
- Compare feature of Amazon Virtual Private Cloud (VPC) & Virtual Network
- Define Network Security Groups
- Provide cross-premises connections between networks
- Understand how Microsoft Azure Networking provides network resiliency

**Module 6: Resource Manager**

In this module, you will learn how to create Resource Groups as well as Resource Group deployment and management options. You will learn best practices for creating ARM templates and authoring and deploying template guidelines. You will also learn about the differences between Resource Manager and AWS CloudFormation technologies.

**Lessons**

- Azure Resource Manager
- ARM Template Best Practices
- Authoring and Deploying Templates
- Defining ARM Dependencies
- Multiple Instances of Resources in ARM

**Lab : Automating Workloads with an ARM Template**

- Deploy and Configure Network Resources by using ARM Templates
- Deploy and Configure Compute Resources by using ARM Templates

**Lab : Using the Azure Command Line Tools**

- Becoming Familiar with the Azure CLI
- Becoming Familiar with Azure PowerShell Cmdlets

After completing this module, students will be able to:

- Define Azure Resource Manager benefits
- Define ARM, Resource Groups and other related terms
- Create and manage Resource Groups
- Compare Resource Manager and AWS CloudFormation
- Deploy and Configure Compute & Network Resources by using ARM Templates
- Customize deployment options

### **Module 7: Azure Active Directory**

In this module, you will learn about Azure Active Directory, and compare Azure Active Directory Editions to determine which has features will best meet your cloud needs. You will also learn about integrating your on-premises Active Directory with Azure AD and synchronizing them. You will learn about Azure RBAC and how this compares with AWS IAM. You will also learn about using additional identity providers access to your Azure resources and utilizing Multi-Factor authentication.

#### **Lessons**

- Azure AD and Cloud Identity
- Understanding Directory Integration
- Azure Role-Based Access Control (RBAC)
- Directory Synchronization Tools
- Directory Integration Scenarios
- Prepare the Azure AD Service for Directory Integration

After completing this module, students will be able to:

- Define Azure Active Directory
- Using additional identity providers access to resources
- Comparing Azure Active Directory Editions
- Define Multi-factor authentication
- Integrate your on-premises Active Directory with Azure AD
- Configure Directory Synchronization
- Compare Azure RBAC and AWS IAM