Microsoft Azure Certification Training

About Edureka

Edureka is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like *Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming.*

We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, Singapore, Australia, Middle East, Brazil and many others, we have built a community of over 1 million learners across the globe.

About the Course

Microsoft Azure Certification training from Edureka will introduce you to the fundamental concepts of Microsoft Azure platform and services offered. This course offers you the opportunity to take an existing ASP.NET MVC application and expand its functionality by moving it to Azure Cloud and focuses on the considerations necessary when building a highly available solution in the cloud.

This Microsoft Cloud training will help you to earn the Microsoft Certified Solutions Developer Certificate by clearing the 70-532: Developing Microsoft Azure Solutions certification exam. You can check the examination details and certification cost at **MCSD Exam 70-532**

Why Learn Azure?

Edureka's Azure Certification training helps you conceptualize the Microsoft Azure fundamentals and services provided on its platform. You will learn to configure and deploy Web applications and master the creation and deployment of Azure Web apps. You will learn to create and configure Azure Virtual machines and will able to create and manage storage account, while handling blobs and containers present in it. This Azure Cloud training helps you master the SQL Database instance and the implications of importing a SQL standalone database. You will learn about the integrals of Azure Ad (Active Directory) instance and learn to create a virtual network and implement a point-to-site network.

Module 1

Overview of Cloud Computing and Microsoft Azure Platform

Goal - Give a brief overview of Cloud and Azure essentials and provide an overview on Azure Platform.

Objectives - Upon completing this module, you should be able to: Summarize Cloud, types of Cloud services, features of Cloud, compare different Cloud Models and Cloud Vendors, Describe the common Azure services, Adapt the Azure Portal to manage the service instances.

Topics

- ✓ Summarize Cloud and its features
- ✓ Relate different Cloud Models
- ✓ Classify different Cloud Services
- ✓ Categorize the Cloud vendors
- ✓ List the features of Azure
- ✓ Azure Services
- ✓ Azure Management Portals

Practical's to be covered: Creating an Azure account, creating a Website using Preview Portal.

Module 2

Building Application Infrastructure in Azure using Virtual Machines

Goal - Demonstrate Virtual Machines service in Azure and Deployment of workload to a Virtual Machine. Handle Virtual Hard disks and Virtual machine endpoints.

Objectives - At the end of this module, you should be able to: Interpret the Virtual Machines service in Azure, deploy a Linux or Microsoft workload to a Virtual Machine, import virtual hard disks to Azure, Scale ARM Virtual Machines, Monitor virtual machine endpoints.

Topics

- ✓ Constructing Azure Virtual Machines
- ✓ Azure Virtual Machine Workloads
- ✓ Migrating Azure Virtual Machine Instances
- ✓ Scaling ARM Virtual Machines
- ✓ Highly Available Azure Virtual Machines
- ✓ Virtual Machine Configuration Management
- ✓ Customize Azure Virtual Machine Networking

Practical's to be covered: Creating a Virtual Machine using the Azure Preview Portal, Creating an Image of the VM.

Module 3

Hosting Web Applications on the Azure Platform

Goal - Demonstrate the creation and monitoring of Web App instance and publish ASP.NET web application to Web Apps.

Objectives - At the end of this module, you should be able to: Create a Web App instance, create a Edureka Web app, Publish a simple ASP.NET web application (Edureka Web app) to Web Apps, Explain MVC project structure, Monitor and manage a Edureka Web App instance using Preview portal.

Topics

- ✓ Azure Web Apps
- ✓ Hosting Web Applications in Azure
- ✓ Configuring an Azure Web App
- ✓ Publishing an Azure Web App
- ✓ Monitor and Analyze Azure Web Site

Practical's to be covered: Create Edureka Web app, Publishing Edureka Web app on Azure.

Module 4

SQL Data Storage in Azure

Goal - Visualize Azure SQL Databases and learn to store and retrieve data on it.

Objectives - At the end of this module, you should be able to: Classify the different Azure SQL Database editions, Explain the advantages and disadvantages of hosting databases in Azure SQL Database, Explain the advantages and disadvantages of hosting databases in a SQL Server installation on a virtual machine in Azure, Describe the tools that you can use to manage Azure SQL Database, Implement a high-availability solution with Azure SQL Database.

Topics

- ✓ Azure SQL Database overview
- ✓ Managing SQL Databases in Azure
- ✓ Azure SQL Database Tools
- ✓ Migrating data to Azure SQL Database
- ✓ Securing and Recovering an Azure SQL Database Instance

Practical's to be covered: Creating an Azure SQL Server and Database, Using Entity Framework Code First to migrate tables to Azure, Connecting the Edureka Web app with the Azure SQL.

Module 5

Designing Resilient Cloud Applications

Goal - Interpret the common practices and patterns for building resilient and scalable web applications that will be hosted in Azure.

Objectives - At the end of this module, you should be able to: Design strategies for Scaling with Cloud Applications, Describe the Valet Key, Retry and Transient Fault Handling Patterns, Use Load Balancing in a geographically redundant application, Create modular applications with partitioned workloads.

Topics

- ✓ Considerations for Scale with Cloud applications
- ✓ Application Design Practices for Highly Available Applications
- ✓ Application Analytics
- ✓ Building High Performance Applications by Using ASP.NET
- ✓ Common Cloud Application Patterns
- ✓ Caching Application Data

Practical's to be covered: Build High Performance ASP.NET Web Application

Module 6

Cloud Services Management in Azure

Goal - Illustrate the Cloud Services and the use of Worker, Web and Cache roles.

Objectives - At the end of this module, you should be able to: Use Cloud Service Worker Roles and Web Sites Web Jobs to process data in the background, Use Cloud Service Cache Roles to store data in the cache.

Topics

- ✓ Overview of Azure Cloud Services
- ✓ Cloud Service Web Roles
- ✓ Customizing Cloud Service Configurations
- ✓ Updating and Managing Cloud Service Deployments
- ✓ Cloud Service Worker Role
- ✓ Cloud Service Worker Role Processing
- ✓ Analyzing Application Cloud Service Role Instances

Practical's to be covered: Creating Azure Web Roles using Visual Studio 2017, Creating a Background Process using a Azure Worker Role.

Module 7

Tabular Data Storage in Azure

Goal - Illustrate data storage in Azure Table Storage.

Objectives - At the end of this module, you should be able to: Store data in Azure Table Storage.

Topics

- ✓ Azure Storage Overview
- ✓ Azure Storage Tables Overview
- ✓ Table Entity Transactions
- ✓ Azure DocumentsDB

Practical's to be covered: Creating an Azure Table Storage table, Managing the Table data using the .NET API for Azure Storage.

Module 8

Storing and Consuming Files from Azure Storage

Goal - Illustrate the storage and access of multimedia files in Azure using Blob Storage.

Objectives - At the end of this module, you should be able to: Master the Blobs storage in Microsoft Azure Storage, Identify the software development kit (SDK) libraries, namespaces, and classes that are available for blobs.

Topics

- ✓ Azure Storage Blobs
- ✓ Controlling Access to Storage Blobs and Containers
- ✓ Monitoring Storage Blobs
- ✓ Configuring Azure Storage Accounts
- ✓ Azure Files
- ✓ Uploading and Migrating Storage data

Practical's to be covered: Storing Generated Documents in Azure Blob Storage, Storing Documents related to the Edureka Web App in the Azure Blob Storage using SMB File Share service.

Module 9

Designing a Communication Strategy by Using Queues and Service Bus

Goal - Implement the Storage Queues service, Service Bus Queues service and Notification Hubs service and Illustrate the Service Bus and Service Bus Relay.

Objectives - At the end of this module, you should be able to: Use Azure Queue Storage to queue data for Asynchronous processing, Identify the Service Bus offerings and which ones to use in appropriate scenarios, Use the Azure Service Bus Relay to connect on premise services with Client applications.

Topics

- ✓ Queue mechanisms in Azure
- ✓ Azure Storage Queues
- ✓ Handling Storage Queues Messages
- ✓ Azure Service Bus
- ✓ Azure Service Bus Queues
- ✓ Azure Service Bus Relay
- ✓ Azure Service Bus Notifications Hubs

Practical's to be covered: Using Storage Queues to Manage Requests between Web Applications in Azure, Creating an Azure Storage Queue Instance to store Requests, Creating an Azure Service Bus Queue Instance to store Requests, Creating an Azure Service Bus namespace, Using the namespace to connect a Cloud Web Application to the local WCF Service.

Module 10

Automating Integration with Azure Resources

Goal - Handle Azure Resources using PowerShell, Client Libraries or the REST API and learn about PowerShell Automation.

Objectives - At the end of this module, you should be able to: Describe the Azure Software Development Kits (SDKs) and Client Libraries, Use Windows PowerShell, Client Libraries or REST API to Automate Azure Service Management, Explore two sets of Modules available for PowerShell Automation, Describe the Service Management API and compare with Resource Manager, Use the Resource Manager to create Resource Groups and Templates.

Topics

- ✓ Azure SDK Client Libraries
- ✓ Virtual Machine Configuration Management
- ✓ Scripting Azure Service Management by Using Windows PowerShell
- ✓ Azure REST Interface
- ✓ Azure Resource Manager

Practical's to be covered: Creating a test environment using PowerShell.

Module 11

Azure Web Applications Security

Goal - Illustrate the AD service and Security Implementation in a Cloud Web Application.

Objectives - At the end of this module, you should be able to: Describe the Azure AD service, Understand the features that are available for the directories in Azure AD, Use Azure Active Directory to implement Security in a Cloud Web Application, Use Microsoft Azure Multi-Factor Authentication service efficiently.

Topics

- ✓ Azure Active Directory
- ✓ Introduction to Identity Providers
- ✓ Azure AD Directories
- ✓ Azure AD Multi-Factor Authentication
- ✓ Azure Role-Based Access Control

Practical's to be covered: Integrating ASP.NET Identity for the Administration Portal with Azure Active Directory.

Module 12

Maintaining and Monitoring Web Solutions in Azure

Goal - Master the Deployment of Web Applications to Azure.

Objectives - At the end of this module, you should be able to: Use Web Deploy and Service Packages to Efficiently Deploy Web Applications to Azure.

Topics

- ✓ Deployment Strategies for Web Applications
- ✓ Deploying Azure Services
- ✓ Continuous Integration
- ✓ Monitoring Cloud Applications

Practical's to be covered: Deploying the Web Application Projects to Azure.

Project

What are the system requirements for this course?

The system requirements include Minimum 8 GB RAM, i5 processor, 20 GB HDD.

How will I execute the practicals?

All the Practical will be executed on Visual Studio 2017 Community Edition with the integration of Azure Platform. Visual Studio 2017 Community Edition can be downloaded from here: https://www.visualstudio.com/thank-you-downloading-visual-studio/?sku=Community&rel=15 users would need to setup their Azure account through their Microsoft email-ID. A detailed installation guide will be provided in your Learning Management System for setting up Visual Studio 2017 Community Edition with Azure Account.

Which case studies will be a part of the course?

At the end of the course, you will be building an Application and Deploying it on the Azure platform.

Training Objectives

On completion of the Azure Certification training learner will be able to:

- ✓ Compare the services available in the Azure platform
- ✓ Configure and deploy Web Applications
- ✓ Design and implement Azure PaaS compute and Web and Mobile Services
- ✓ Create and Configure Azure Virtual Machines
- ✓ Create and Manage a Storage account
- ✓ Manage blobs and containers in a Storage account
- ✓ Create, Configure and Connect to a SQL Database instance
- ✓ Identify the implications of importing a SQL standalone database
- ✓ Manage users, groups and subscriptions in an Azure Active Directory instance
- ✓ Create a Virtual Network
- ✓ Implement a point-to-site network

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