20532D

Developing Microsoft Azure Solutions

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20532D - Version: 1

5 days Course

Description:

This course offers students the opportunity to take an existing web application and expand its functionality as part of moving it to Azure. The course does not require any existing experience with the ASP.NET platform but does require experience with C#. This course focuses on the development considerations and decisions necessary when building a highly available solution in the cloud. This course also prepares the students for the 70-532: Developing Microsoft Azure Solutions certification exam.

Intended audience:

This course is intended for students who have experience building web applications. Students should also have experience with the Microsoft Azure platform and a basic understanding of the services offered in Azure.

Prerequisites:

Before attending this course, students must have the following technical knowledge:

- Compare the services available in the Azure platform.
- Configure and deploy web applications.
- Create Azure Web Apps.
- Create and configure Virtual Machines.
- Create a Virtual Network.
- Create a Storage account.
- Manage blobs and containers in a Storage account.

- Create, configure and connect to an Azure SQL Database instance.
- Manage users, groups and subscriptions in an Azure Active Directory instance

Objectives:

- Compare the services available in the Azure platform.
- Configure and deploy web applications.
- Creating Azure Web Apps from the gallery.
- Deploying and monitoring Azure Web Apps.
- Creating and configuring Azure Virtual Machines.
- Create and manage a storage account.
- Manage blobs and containers in a storage account.
- Create, configure and connect to a SQL Databases 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.

Topics:

Module 1: Overview of the Microsoft Azure Platform

- Azure Services
- Azure Portal
- Lab : Exploring the Azure Portal

Module 2: Building Application Infrastructure in Azure.

- Azure Virtual Machines
- Azure Virtual Machine Workloads
- Migrating Azure Virtual Machine Instances
- Highly Available Azure Virtual Machines

- Virtual Machine Configuration Management
- Customizing Azure Virtual Machine Networking
- Virtual Machine Scale Sets
- Lab : Creating an Azure Virtual Machine for Development and Testing

Module 3: Hosting Web Applications on the Azure Platform

- Azure Web Apps
- Azure Logic and Function Apps
- Configuring an App Service App
- Publishing an Azure App Service App
- Supplemental Services
- Lab : Creating an ASP.NET Web App by Using Azure Web Apps

Module 4: Storing SQL Data in Azure

- Azure SQL Database Overview
- Managing SQL Databases in Azure
- Azure SQL Database Tools
- Securing and Recovering an Azure SQL Database Instance
- Additional Managed Database Services
- Lab : Storing Event Data in Azure SQL Databases

Module 5: Designing Cloud Applications for Resiliency

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

Module 6: Storing Unstructured Data in Azure

- Azure Storage Overview
- Azure Storage Tables
- Azure Redis Cache
- Azure Search
- Azure Cosmos DB
- Lab : Storing Event Registration Data in Azure Storage Tables

Module 7: Storing and Consuming Files from Azure Storage

- Azure Storage Blobs
- Controlling Access to Storage Blobs and Containers
- Configuring Azure Storage Accounts
- Azure Files
- Lab : Storing Generated Documents in Azure Storage Blobs

Module 8: Designing a Communication Strategy by Using Queues and Service Bus

- Azure Storage Queues
- Azure Service Bus
- Azure Service Bus Queues
- Azure Service Bus Relay
- Azure Service Bus Notification Hubs
- Lab : Using Queues and Service Bus to Manage Communication Between Web Applications in Azure

Module 9: Automating Integration with Azure Resources

- Creating Azure Scripts using Azure PowerShell
- Creating Azure Scripts using Azure CLI
- Azure Resource Manager
- Azure REST Interface
- Azure Cloud Shell
- Lab : Automating the Creation of Azure Assets using PowerShell and Azure CLI

Module 10: DevOps in Azure

- Continuous Integration
- Azure DevTest Labs
- Azure Resource Manager Templates
- Managed Solution Hosting
- Lab : Deploying Templated Environments Using the Cloud Shell

Module 11: Securing Azure Web Applications

- Azure Active Directory
- Azure AD Directories
- Azure AD Offerings
- Azure Key Vault
- Lab : Integrating Azure Active Directory with the Events Administration Portal