20532: Developing Microsoft Azure Solutions (Microsoft Specialist)

Course Details

Course Outline

1. **Overview of the Microsoft Azure Platform**
   - Azure Services
   - Azure Portal
   - Lab : Exploring the Azure Portal

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

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

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

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

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

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

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

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

10. **DevOps in Azure**

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

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