Course Outline

DE 20001 AZ-200T01: Select the Appropriate Azure Technology Development Solution

Module 1: Select an appropriate compute solution

Lessons

- Take advantage of appropriate design and connectivity patterns

After completing this module, students will be able to:

- Learn common Azure application design and connectivity patterns

Module 2: Design for hybrid technologies

Lessons

- Virtual networking
- Hybrid networking

After completing this module, students should be comfortable with:

- Measuring and planning throughput, and data access structure

Module 3: Select an appropriate storage solution

Lessons

- Address durability of data
- Caching
- Measure and plan throughput and structure of data access

After completing this module, students will be able to:

- Learn about Azure networking topologies

Course Outline

DE 20002 AZ-200T02: Develop for Azure Storage

Module 1: Develop solutions that use Azure Storage tables

Lessons

•Connect to Azure Storage

•Design and Implement Storage tables

•Query a table by using code

After completing this module, students will be able to:

•Connect to storage in Azure

•Design and implement policies to Tables

Module 2: Develop solutions that use Azure Cosmos DB storage Azure Cosmos

Lessons

•Choose the appropriate API for Cosmos DB storage

•Manage containers and items in Cosmos DB storage

•Create, read, update, and delete documents in Azure Cosmos DB by using code

Module 3: Develop solutions that use file storage

Lessons

•Implement file shares for an Azure storage account

•Migrating content to and between file shares

Module 4: Develop solutions that use a relational database

Lessons

•Create, read, update, and delete database tables by using code

•Implement SQL Dynamic Data Masking

After completing this module, students will be able to:

•Create, read, update, and delete tables by using code

Module 5: Develop solutions that use Microsoft Azure Blob storage

Lessons

•Create a Shared Access Signature for a blob

•Asynchronously move items in Blob storage between containers

•Set Blob storage container properties in metadata

After completing this module, students will be able to:

•Develop solutions that use blob storage

Module 6: Develop for caching and content delivery solutions

Lessons

•Azure Redis Cache

•Develop for storage on CDNs

After completing this module, students will be able to:

•Develop for Azure Redis cache and content delivery networks

Course Outline

DE 20003 AZ-200T03: Develop Azure Platform as a Service Solutions

Module 1: Creating App Service Web Apps

Lessons

- Introduction to Web Apps
- Using shell commands to create App Service Web Apps
- Creating background tasks using WebJobs in Azure App Service
- Using Swagger to document an API

After completing this module, students will be able to:

- Create an Azure app service web app by using Azure CLI, Powershell, and other tools
- Create documentation for the API by using open source and other tools

Module 2: Creating mobile apps

Lessons

- Getting started with mobile apps in App Service
- Enabling push notifications for your app
- Enabling offline sync for your app

After completing this module, students will be able to:

- Add push notifications and enable offline sync for mobile apps

Module 3: Creating an app service Logic App

Lessons

- Overview of Azure Logic Apps
- Creating a Logic App
- Creating custom connectors for Logic Apps
- Creating a custom template for a Logic App

Module 4: Creating an app or service that runs on Service Fabric

Lessons

- Understanding Azure Service Fabric
- Creating a Reliable Service
- Creating a Reliable Actors app
- Working with Reliable Collections

After completing this module, students will be able to:

- Develop stateful and stateless apps on Service Fabric

Module 5: Creating Azure Functions

Lessons

- Azure Functions overview
- Develop Azure Functions using Visual Studio
- Triggers and bindings

After completing this module, students will be able to:

- Create Azure functions including bindings and triggers

Module 6: Scheduling bulk operations

Lessons

- Azure Batch overview
- Running Batch jobs

- Using the .NET Batch Management client library

After completing this module, students will be able to:

- Define and run scheduled bulk operations

Module 7: Create solutions that use Azure Kubernetes Service

Lessons

- Creating an Azure Kubernetes Service cluster
- Azure Container Registry
- Azure Contaner Instances

After completing this module, students will be able to:

- Create an Azure Container Service (ACS/AKS) cluster using Azure CLI and Azure Portal

Module 8: Developing apps for Azure Media Services

Lessons

- Introduction to Azure Media Services
- Azure Media Services v3 concepts
- Upload, encode, and stream with .NET
- Analyze your video with .NET

After completing this module, students will be able to:

- Develop media solutions that use AI services

Course Outline

DE 20004 AZ-200T04: Implement Security in Azure Development Solutions

Module 1: Implementing authentication

Lessons

- Implement authentication in applications
- Implement multi-factor authentication

After completing this module, students will be able to:

- Learn about the different authentication options, including multi-factor, available in Azure and how they operate

Module 2: Implementing access control

Lessons

- Claims-based authorization
- Role-based access control (RBAC) authorization

After completing this module, students will be able to:

- Learn about implementing access control in your solution including claims- and role-based authorization

Module 3: Implementing secure data solutions

Lessons

- Encryption options
- End-to-end encryption
- Implement Azure confidential computing
- Manage cryptographic keys in Azure Key Vault

After completing this module, students will be able to:

- Implement secure data solutions by using encryption, Azure confidential computing, and SSL/TLS communications