AZ203 - Developing Microsoft Azure Solutions

Course ID #: 1413-203-00-W

Hours: 42

Course Content

Course Description:

In this five-day course, students will gain the knowledge needed to implement Azure IaaS services and features in their development solutions. As they learn, they will create and manage App Service resources and integrate push and offline sync in their mobile apps. They will leverage Azure storage services including Azure Table storage, Azure Cosmos DB and Azure Blob. They will create and integrate what they've learned by using Azure CLI, REST and application code. To enhance the end-user experience, they will implement autoscale to support monitoring and logging using Azure Cache and CDN. By creating and managing their APIs via API Management, students will learn how to create and integrate these resources by using the Azure Portal, Azure CLI, REST and application code.

This course will help attendees prepare for and pass AZ 203 - Developing Solutions for Microsoft Azure.

Target Student:

Students in this course are interested in Azure development or in passing the Microsoft Azure Developer Associate certification exam.

Prerequisites:

- Students should have 1-2 years' experience as a developer. This course assumes students know how to code and have a fundamental knowledge of Azure.
- It is recommended that students have some experience with PowerShell or Azure CLI, working in the Azure portal, and with at least one Azure-supported programming language. Most of the examples in this course are presented in C\# .NET.

Topics:

Module 1: Introduction to Azure Monitor
Azure Monitor is the central service that includes all of tools you need to monitor and optimize your solution.
Lessons
- Overview of Azure Monitor
After completing this module, students will be able to:
- Understand how Azure Monitor works

- Know where and how Azure Monitor collects data

Module 2: Develop code to support scalability of apps and services
This module covers how applications scale and how to handle some troubleshooting.
Lessons
- Implement autoscale

- Implement code that addresses singleton application instances
- Implement code that handles transient faults

After completing this module, students will be able to:

- Understand autoscale patterns and best practices for scaling their solutions
- How to use the Azure CLI to communicate with a specific copy of a resource
- How to handle transient faults in your solution

Module 3: Instrument solutions to support monitoring and logging

This module covers adding code to your app to send the data to Azure Monitor.

Lessons

- Configure instrumentation in an app or server by using Application Insights
- Analyze and troubleshoot solutions by using Azure Monitor

After completing this module, students will be able to:

- Know how to add default code to web pages, console apps, and Windows desktop apps to support telemetry
- Know how to use dashboards and other tools to monitor and troubleshoot their app

Module 4: Integrate caching and content delivery within solutions

This module shows students how to leverage Azure Cache for Redis and Azure CDNs to deliver assets to users more quickly.

Lessons

- Azure Cache for Redis
- Develop for storage on CDNs

After completing this module, students will be able to:

- Understand how Azure Cache for Redis operates and how to configure and interact with it
- Know how to manage Azure CDN