

Module Title : AZ-201T01-A: Develop for an Azure Cloud Model

Duration : 1 day

Overview

This course is part of a series of four courses to help you prepare for Microsoft's Azure Developer certification exam AZ-201: Develop Advanced Microsoft Azure Cloud Solutions. These courses are designed for developers who already know how to code in at least one of the Azure-supported languages.

The coursework covers how to ensure your solution meets performance expectations in Azure. It covers asynchronous processing, autoscaling, long-running tasks, and distributed transactions. Additionally, you'll learn how to leverage Azure Search for textual content, and how to implement instrumentation and logging in your development solution.

Audience profile

These courses are for experienced programmers who want to develop and host solutions in Azure. Learners should have some experience with Azure and must be able to program in at least one Azure-supported language. These courses focus on C#, Node.js, Azure CLI, Azure PowerShell, and JavaScript.

At course completion

After completing this course, students will be able to:

- Learn to develop for asynchronous processing and how to implement the appropriate asynchronous compute model.
- Implement autoscaling in your solution and implement code that addresses transient state.
- Discover how to implement large-scale, parallel and high-performance apps by using batches.
- Learn to implement, and manage, distributed transactions.
- Configure instrumentation in an app or service by using Application Insights and other tools.

Course Outline

Module 1: Develop for asynchronous processing

Lessons

- Implement parallelism multithreading and processing
- Implement Azure Functions and Azure Logic Apps
- Implement interfaces for storage or data access
- Implement appropriate asynchronous computing models

After completing this module, students will be able to:

- Learn to develop for asynchronous processing and how to implement the appropriate asynchronous compute model.

Module 2: Develop for autoscaling

Lessons

- Implement autoscaling rules and patterns
- Implement code that addresses singleton application instances
- Implement code that addresses a transient state

After completing this module, students will be able to:

- Implement autoscaling in your solution and implement code that addresses transient state.

Module 3: Develop long-running tasks

Lessons

- Implement large scale parallel and high-performance apps by using batches
- Implement resilient apps by using queues
- Implement code to address application events by using webhooks
- Address continuous processing tasks by using Azure WebJobs

After completing this module, students will be able to:

- Discover how to implement large-scale, parallel and high-performance apps by using batches.

Module 4: Implement distributed transactions

Lessons

- Identify tools to implement distributed transactions
- Manage the transaction scope
- Manage transactions across multiple databases and servers

After completing this module, students will be able to:

- Learn to implement, and manage, distributed transactions.

Module 5: Enable the search of textual content

Lessons

- Create an Azure Search index
- Import searchable data
- Query the Azure Search index by using code

Module 6: Instrument an app or service and implement logging

Lessons

- Configure instrumentation in an app or service
- Configure the logging service