

20487BC

Developing Windows Azure  
and Web Services

5 DAYS

The main purpose of this 5-day instructor-led course is to provide students with the knowledge and skills required to design and develop services that access local and remote data from various data sources. Students will also learn how to develop and deploy services to hybrid environments, including on-premises servers and Microsoft Azure. This course helps students prepare for exam 70-487.

### Module 1: Overview of service and cloud technologies

- Key Components of Distributed Applications
- Data and Data Access Technologies
- Service Technologies
- Cloud Computing
- Exploring the Blue Yonder Airlines' Travel Companion Application

### Module 2: Querying and Manipulating Data Using Entity Framework

- ADO.NET Overview
- Creating an Entity Data Model
- Querying Data
- Manipulating Data

### Module 3: Creating and Consuming ASP.NET Web API Services

- HTTP Services
- Creating an ASP.NET Web API Service
- Handling HTTP Requests and Responses
- Hosting and Consuming ASP.NET Web API Services

### Module 4: Extending and Securing ASP.NET Web API Services

- The ASP.NET Web API Pipeline
- Creating OData Services
- Implementing Security in ASP.NET Web API Services
- Injecting Dependencies into Controllers

### Module 5: Creating WCF Services

- Advantages of Creating Services with WCF
- Creating and Implementing a Contract
- Configuring and Hosting WCF Services
- Consuming WCF Services

### Module 6: Hosting Services

- Hosting Services On-Premises
- Hosting Services in Windows Azure

## Module 7: Windows Azure Service Bus

Windows Azure Service Bus Relays  
Windows Azure Service Bus Queues  
Windows Azure Service Bus Topics

## Module 8: Deploying Services

Web Deployment with Visual Studio 2012  
Creating and Deploying Web Application Packages  
Command-Line Tools for Web Deploy  
Deploying Web and Service Applications to Windows Azure  
Continuous Delivery with TFS and Git  
Best Practices for Production Deployment

## Module 9: Windows Azure Storage

Introduction to Windows Azure Storage  
Windows Azure Blob Storage  
Windows Azure Table Storage  
Windows Azure Queue Storage  
Restricting Access to Windows Azure Storage

## Module 10: Monitoring and Diagnostics

Performing Diagnostics by Using Tracing  
Configuring Service Diagnostics  
Monitoring Services Using Windows Azure Diagnostics  
Collecting Windows Azure Metrics

## Module 11: Identity Management and Access Control

Claims-based Identity Concepts  
Using the Windows Azure Access Control Service  
Configuring Services to Use Federated Identities

## Module 12: Scaling Services

Introduction to Scalability  
Load Balancing  
Scaling On-Premises Services with Distributed Cache  
Windows Azure Caching  
Scaling Globally

## Module 13: Appendix : Designing and Extending WCF Services

Applying Design Principles to Service Contracts  
Handling Distributed Transactions  
Extending the WCF Pipeline