Course duration

- 3 days

Course Benefits

- Build a web application on the Azure App Service platform.
- Learn how the platform functions and how to create, configure, scale, secure, and deploy to the App Service platform.
- Create a Functions apps.
- Integrate triggers and inputs/outputs in to the app.
- Learn how Azure Blob storage works, how to manage data through the hot/cold/archive blob storage lifecycle, and how to use the Azure Blob storage client library to manage data and metadata.
- Learn how to create an ARM (Azure Resource Manager) Template.
- Learn how Cosmos DB is structured and how data consistency is managed.
- Learn how to create Cosmos DB accounts and create databases, containers, and items by using a mix of the Azure Portal and the .NET SDK.
- Learn how to create and deploy Azure Resource Manager templates that can be used to speed new deployment and create consistency across resources.
- Learn how to leverage the Microsoft Identity Platform v2.0 to manage authentication and access to resources.
- Learn how to use the Microsoft Authentication Library and Microsoft Graph to authenticate a user and retrieve information stored in Azure, and how and when to use Shared Access Signatures.
- Secure the information (keys, secrets, certificates) an application uses to access resources.
- Securing application configuration information.
- Learn how to publish APIs, create policies to manage information shared through the API, and to manage access to their APIs by using the Azure API Management service.
- Learn how to build applications with event-based architectures.
- Learn how to build applications with message-based architectures.
- Learn how to instrument their code for telemetry.

Microsoft Certified Partner

Webucator is a Microsoft Certified Partner for Learning Solutions (CPLS). This class uses official Microsoft courseware and will be delivered by a Microsoft Certified Trainer (MCT).

Course Outline

1. Create Azure App Service Web Apps
    1. Azure App Service core concepts
    2. Creating an Azure App Service Web App
    3. Configuring and Monitoring App Service apps
    4. Scaling App Service apps
    5. Azure App Service staging environments
2. Implement Azure functions
    1. Azure Functions overview
    2. Developing Azure Functions
    3. Implement Durable Functions
3. Develop solutions that use blob storage
    1. Azure Blob storage core concepts
    2. Managing the Azure Blob storage lifecycle
    3. Working with Azure Blob storage
    4. Create an Azure Resource Manager Template
4. Develop solutions that use Cosmos DB storage
    1. Azure Cosmos DB overview
    2. Azure Cosmos DB data structure
    3. Working with Azure Cosmos DB resources and data
    4. Create and deploy ARM templates
5. Create and deploy Azure Resource Manager (ARM) templates
    1. Create and deploy ARM templates
6. Implement user authentication and authorization
    1. Implementing Microsoft identity platform
    2. Implement Microsoft Authentication Library
    3. Secure app configuration data by using Azure App Configuration
7. Implement secure cloud solutions
    1. Manage keys, secrets, and certificates by using the KeyVault API
    2. Implement Managed Identities for Azure resources
    3. Secure app configuration data by using Azure App Configuration
8. Implement API Management
    1. Implement API Management
    2. Defining policies for APIs
    3. Securing your APIs
9. Develop event-based solutions
    1. Implement Azure Event Grid
    2. Implement Azure Event Hubs
    3. Implement Azure Notification Hub
10. Develop message-based solutions
    1. Implement solutions that use Azure Service Bus
    2. Implement solutions that use Azure Queue Storage queues
11. Monitor and optimize Azure solutions
    1. Applications of Azure Application Insights
    2. Instrument an app for monitoring

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *is required* for this Azure class:

- 1-2 years professional development experience and experience with AWS. They must be able to program in an Azure Supported Language.