Microsoft Azure solutions for AWS developers

Module 1: Create Azure App Service Web Apps

Students will learn how to build a web application on the Azure App Service platform. They will learn how the platform functions and how to create, configure, scale, secure, and deploy to the App Service platform.

Lessons

- Azure App Service core concepts
- Creating an Azure App Service Web App
- Configuring and Monitoring App Service apps
- Scaling App Service apps
- Azure App Service staging environments

Module 2: Implement Azure functions

This module covers creating Functions apps, and how to integrate triggers and inputs/outputs in to the app.

Lessons

- Azure Functions overview
- Developing Azure Functions
- Implement Durable Functions

Module 3: Develop solutions that use blob storage

Students will 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. Also, students will learn how to create an ARM (Azure Resource Manager) Template.

Lessons

- Azure Blob storage core concepts
- Managing the Azure Blob storage lifecycle
- Working with Azure Blob storage
- Create an Azure Resource Manager Template

Module 4: Develop solutions that use Cosmos DB storage

Students will learn how Cosmos DB is structured and how data consistency is managed. Students will also 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.

Lessons

- Azure Cosmos DB overview
- Azure Cosmos DB data structure
- Working with Azure Cosmos DB resources and data
- Create and deploy ARM templates

Module 5: Create and deploy Azure Resource Manager (ARM) templates

Students will learn how to create and deploy Azure Resource Manager templates that can be used to speed new deployment and create consistency across resources.

Lessons

- Create and deploy ARM templates

Module 6: Implement user authentication and authorization

Students will learn how to leverage the Microsoft Identity Platform v2.0 to manage authentication and access to resources. Students will also 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.

Lessons

- Implementing Microsoft idenity platform
- Implement Microsoft Authentication Library
- Secure app configuration data by using Azure App Configuration

Module 7: Implement secure cloud solutions

This module covers how to secure the information (keys, secrets, certificates) an application uses to access resources. It also covers securing application configuration information.

Lessons

- Manage keys, secrets, and certificates by using the KeyVault API
- Implement Managed Identities for Azure resources
- Secure app configuration data by using Azure App Configuration

Module 8: Implement API Management

Students will 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.

Lessons

- Implement API Management
- Defining policies for APIs
- Securing your APIs

Module 9: Develop event-based solutions

Students will learn how to build applications with event-based architectures.

Lessons

- Implement Azure Event Grid
- Implement Azure Event Hubs
- Implement Azure Notification Hub

Module 10: Develop message-based solutions

Students will learn how to build applications with message-based architectures.

Lessons

- Implement solutions that use Azure Service Bus
- Implement solutions that use Azure Queue Storage queues

Module 11: Monitor and optimize Azure solutions

This module teaches students how to instrument their code for telemetry.

Lessons

- Applications of Azure Application Insights
- Instrument an app for monitoring