

AZ-301 Azure Solutions Architect - Design Track

Course Overview

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This is a 4-day class

In this course students will learn the design function of the Azure Solutions Architect job role.

Who Should Attend

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

Course Objectives

- Determine Workload Requirements
- Design for Identity and Security
- Design a Data Platform
- Design a Basic Continuity Strategy
- Design for Deployment, Migration, and Integration
- Design an Infrastructure Strategy

Course Outline

1 MANAGING SECURITY & IDENTITY FOR AZURE SOLUTIONS

Integrate their existing solutions with external identity providers using Azure AD B2B or B2C.
Design a hybrid identity solution.
Determine when to use advanced features of Azure AD such as Managed Service Identity, MFA and Privileged Identity Management.
Secure application secrets using Key Vault.
Secure application data using SQL Database and Azure Storage features.

2 INTEGRATING SAAS SERVICES AVAILABLE ON THE AZURE PLATFORM

Detail the various APIs available in Cognitive Services.
Identify when to use the Face API, Speech API or Language Understanding (LUIS) service.

3 BACKING AZURE SOLUTIONS WITH AZURE STORAGE

Determine the ideal pricing option for Azure Storage based on a solution's requirements.
Identify performance thresholds for the Azure Storage service.
Determine the type of Storage blobs to use for specific solution components.
Use the Azure Files service for SMB operations.
Identify solutions that could benefit from the use of StorSimple physical or virtual devices.

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4 COMPARING DATABASE OPTIONS IN AZURE

Compare and contrast monitoring services for applications, the Azure platform, and networking.
Identify data streaming options for large-scale data ingest.
Identify longer-term data storage options.

5 MONITORING & AUTOMATING AZURE SOLUTIONS

Compare and contrast monitoring services for applications, the Azure platform, and networking.
Design an alert scheme for a solution hosted in Azure.
Select the appropriate backup option for infrastructure and data hosted in Azure.
Automate the deployment of future resources for backup recovery or scaling purposes.

6 DEPLOYING RESOURCES WITH AZURE RESOURCE MANAGER

Create a resource group.
Add resources to a resource group.
Deploy an ARM template to a resource group.
Filter resources using tags.
Author a complex deployment using the Azure Building Blocks tools.

7 CREATING MANAGED SERVER APPLICATIONS IN AZURE

Select between hosting application code or containers in an App Service instance.
Describe the differences between API, Mobile, and Web Apps.
Integrate an API or Logic App with the API Management service.
Design an App Service Plan or multi-region deployment for high performance and scale.

8 AUTHORIZING SERVERLESS APPLICATIONS IN AZURE

Select between hosting application code or containers in an App Service instance.
Describe the differences between API, Mobile, and Web Apps.
Integrate an API or Logic App with the API Management service.
Design an App Service Plan or multi-region deployment for high performance and scale.

9 CREATING WEB APPLICATIONS USING PAAS

Use shell commands to create an App Service Web App
Create Background Tasks
Use Swagger to document an API

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10 CREATING APPS AND SERVICES RUNNING ON SERVICE FABRIC

Create a reliable service
Create a Reliable Actors app
Hands-on with Reliable collections

11 USING KUBERNETES SERVICE

Understand the Azure Container Registry
Use Azure Container instances