About this course
Master the skills needed to design solutions that run on Azure. A Microsoft Azure Solutions Architect must have expertise in compute, network, storage, and security.

Duration
32 hs

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

Course Outline
AZ-301T01-A: Designing for Identity and Security - Link
Learn how to manage security and identity within the context of Azure. Also, you'll be introduced to multiple SaaS services available in Azure that for integration into existing Azure Solutions.

At course completion
After completing this course, students will be able to:
- 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.
- Detail the various APIs available in Cognitive Services.
- Identify when to use the Face API, Speech API or Language Understanding (LUIS) service.
- Describe the relationship to Bot Framework and Azure Bot Services.
AZ-301T02-A: Designing a Data Platform Solution – Link
Learn to compare and contrast various database options on Azure, identify data streaming options for large-scale data ingest, and identify longer-term data storage options.

At course completion
After completing this course, students will be able to:
- 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.
- 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.

AZ-301T03-A: Designing for Deployment, Migration, and Integration - Link
Learn how to deploy an ARM template to a resource group, author a complex deployment using the Azure Building Blocks tools, and integrate an API or Logic App with the API Management service.

At course completion
After completing this course, students will be able to:
- Create a resource group.
- Add resources to a resource group.
- Deploy an ARM template to a resource group Integrate an API or Logic App with the API Management service.
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- Design an App Service Plan or multi-region deployment for high performance and scale.
- 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.

AZ-301T04-A: Designing an Infrastructure Strategy - [Link](#)
Learn how to Describe DNS and IP strategies for VNETs in Azure, compare connectivity options for ad-hoc and hybrid connectivity, distribute network traffic across multiple loads using load balancers, and design a hybrid connectivity scenario between cloud and on-premise.

At course completion
After completing this course, students will be able to:
- Describe various patterns pulled from the Cloud Design Patterns.
- Distribute network traffic across multiple loads using load balancers.
- Design a hybrid connectivity scenario between cloud and on-premise.
- Design an availability set for one or more virtual machines.
- Describe the differences between fault and update domains.
- Author a VM Scale Set ARM template.