

Module Title : AZ-101T02-A: Implementing and Managing Application Services

Duration : 1 day

About this course

This course teaches IT Professionals how to manage and maintain the infrastructure for the core web apps and services that developers build and deploy. Students will learn how Azure App Service is used as a Platform as a Service (PaaS) offering for deploying cloud apps for web and mobile environments. Students will learn how to use App Service Environments (ASE) to host a dedicated environment for securing and running App Service apps at scale. Students will also learn how to use deployment slots as staging environments for web apps, that can then be swapped into production when needed. This course also teaches students how to scale up and scale out to meet and adjust for demand, and how bandwidth for web traffic can be optimized using Application Gateways and Content Delivery Networks (CDN). Lastly, the course provides students with an overview of serverless computing solutions, including Azure Functions, Event Grid, Service Bus, and Logic Apps.

Audience profile

This course is for Azure Administrators. Azure Administrators manage the cloud services that span storage, networking, and compute cloud capabilities, with a deep understanding of each service across the full IT lifecycle. They take end-user requests for new cloud applications and make recommendations on services to use for optimal performance and scale, as well as provision, size, monitor and adjust as appropriate. This role requires communicating and coordinating with vendors. Azure Administrators use the Azure Portal and as they become more proficient they use PowerShell and the Command Line Interface.

At course completion

After completing this course, students will be able to:

- Implement use cases and configuration options for Azure App Services and App Service Environments.
- Manage and secure web apps with backup, restore, snapshot, and cloning.
- Optimize your web app performance with Scale Up, Scale Out, Autoscale, and Grow out strategies.
- Deploy serverless computing features like Azure Functions, Event Grid, and Service Bus.

Course Outline

Module 1: Introducing the Azure App Service Platform

In this module, you will be introduced to the Azure App Services Platform. You will learn about app service plans, web app hosting options, app service scenarios and how to monitor apps. You will also learn about how to isolate apps with App Service Environments.

Lessons

- Introducing Azure App Service
- App Service Environments

After completing this module, students will be able to:

- Implement use cases and configuration options for Azure App Services and App Service Environments.

Module 2: Managing and Securing Web Apps

In this module, you will learn how to deploy your app with minimal downtime. You will also learn how to backup, restore, snapshot, and clone your app. Lastly, you will implement security features like authentication options and authentication providers.

Lessons

- Deploying Web Apps
- Managing Web Apps
- App Service Security

After completing this module, students will be able to:

- Manage and secure web apps with backup, restore, snapshot, and cloning.

Module 3: Scaling and Performance

In this module, you will learn how to ensure your app performs under various workloads. You will learn how to scale up and scale out your app. You will learn how to automatically scale your app and to grow out the app through geo-distribution. Lastly you will learn how CDN provides a way to optimize bandwidth and web traffic.

Lessons

- Scale Up and Scale Out
- Autoscale and Grow out
- Optimizing Bandwidth and Web Traffic

After completing this module, students will be able to:

- Optimize your web app performance with Scale Up, Scale Out, Autoscale, and Grow out strategies.

Module 4: Deploying Serverless Computing Solutions

In the module, you will learn what serverless computing is and what it provides. You will implement three serverless computing solutions: Azure Functions, Event Grid, and Service Bus. Azure Functions provide small pieces of code, or

"functions," that run in the cloud. Event Grid is a service for managing routing of all events from any source to any destination. Service Bus multi-tenant cloud messaging service that sends information between applications and services.

Lessons

- Serverless Computing Concepts
- Managing Azure Functions
- Managing Event Grid
- Managing Service Bus
- Managing Logic App

After completing this module, students will be able to:

- Deploy serverless computing features like Azure Functions, Event Grid, and Service Bus.

Prerequisites

Successful Azure Administrators start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.