Microsoft Azure

Administrator Associate Training

Implement and Manage Application Services

Agenda

- What is Azure Apps Service
- Azure Apps Service Features
- What is Azure Mobile App
- What is Azure Logic Apps
- Azure App Service Environment
- Deploying Web Apps
- Comparison of VM vs WebApp vs Cloud Services
- FTP Transfer
- Configure Serverless Computing
  - Route custom events to web endpoint with the Azure portal and Event Grid
  - Manage a function app in the Azure portal

Azure Apps Service

What is Azure Apps Service?

- App Service provides a comprehensive platform for building cloud-based applications.
- App Service provides a hosted service that developers can use to build mobile and web apps.
- The Web Apps feature is a platform of technologies that enable you to build web apps in Azure without having to deploy, configure, and maintain your own Azure VMs.
- You can build web apps by using the ASP.NET, PHP, Node.js, Java, and Python frameworks and a range of programming languages, such as C#, HTML5, PHP, Java, Node.js, and Python.
- They also integrate with common development environments such as Visual Studio and GitHub.
- With App Service, you pay for the Azure compute resources you use.

Azure Web Apps: Features

Visual Studio integration

- Dedicated tools in Visual Studio streamline the work of creating, deploying, and debugging.

API and mobile features

- Web Apps provides turn-key CORS support for RESTful API scenarios, and simplifies mobile app scenarios by enabling authentication, offline data sync, push notifications, and more.

Serverless code

- Run a code snippet or script on-demand without having to explicitly provision or manage infrastructure, and pay only for the compute time your code actually uses.

What is Azure Mobile App?

- The Mobile Apps feature is a part of App Service.
- It provides a platform for building and hosting backend services for mobile applications.
- The Mobile Apps feature allows developers to build cross-platform apps that can run on Windows, iOS, or Android.
- These apps can operate exclusively in the cloud or connect with your on-premises infrastructure, for authentication and authorization purposes.
- They can benefit from the built-in push notification engine that can send personalized push notifications to almost any mobile device that is using iOS, Android, or Windows.

What is Azure Logic Apps?

1. Logic apps automate business processes by linking together cloud-based apps, such as Office 365, Google Services, and Salesforce.

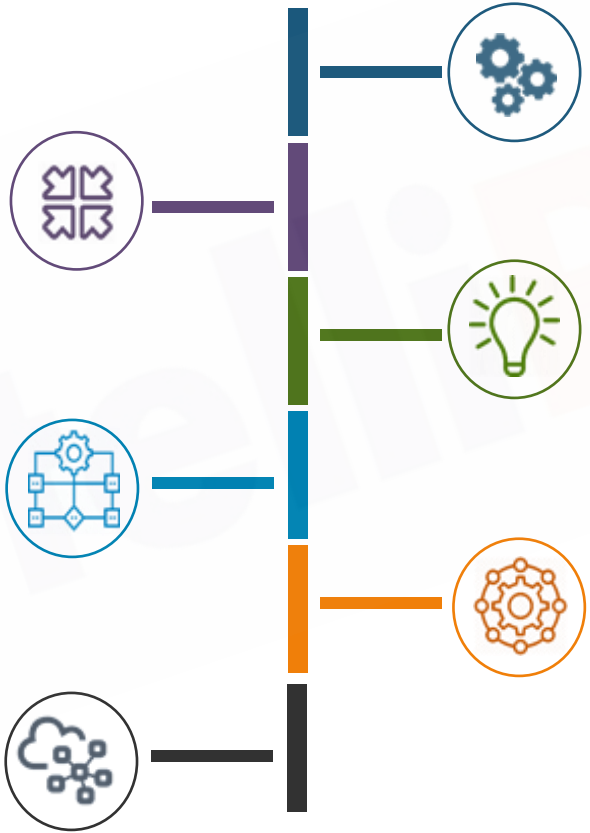
2. With the Logic Apps feature, you can use a visual designer to combine connectors available from Azure Marketplace for different integration scenarios.

3. Logic Apps uses a workflow engine to implement business processes that you designed and relies on connectors to provide user access.

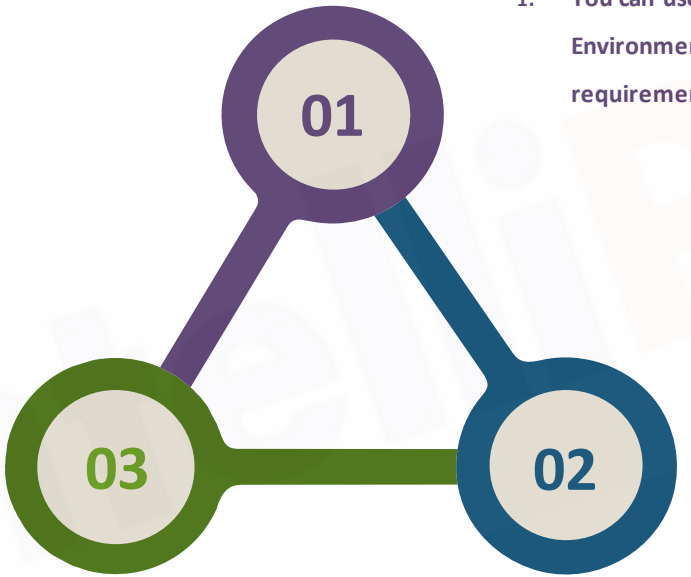
4. Connectors also facilitate initiating new workflow instances via triggers based on events that you define.

5. Each step in the workflow is an action that accesses data or services through a connector.

6. More advanced integration scenarios can use rules, transformations, validations, and features that are part of BizTalk Services.



Azure App Service Environment



1. You can use the App Service Environment to accommodate this requirement.

2. Business-critical apps often require highly scalable, isolated, and dedicated environments.

3. You can use the App Service Environment to host web apps, mobile apps, and API apps that require highly scalable compute resources, isolation, and direct virtual network connectivity.

Azure Web Apps:
Deploying Web Apps

- You can deploy your web apps by using several methods:

Copying files manually by using FTP

Synchronizing files and folders to App Service from a cloud storage service, such as OneDrive or Dropbox.

- App Service also supports deployments by using the Web Deploy technology.
- This approach is available with Visual Studio, WebMatrix, and Visual Studio Team Services.
- If you want to perform deployments by using Git or FTP, you must configure deployment credentials.
- Knowledge of deployment credentials will allow you to upload the web app's code and content to the new web app, to make it available for browsing.

Azure Web Apps: Comparison

To host a web application in Azure, you can use:

Azure VMs, Web Apps, or Azure Cloud Services.

Azure VMs

- Azure VM can host any web server, such as IIS or Apache.
- You can host supporting servers, such as SQL Server instances that host databases, on other VMs.
- You can use Azure VM load balancing or Azure VM Scale Sets to scale the web application horizontally.
- If you choose to host a web application on Azure VMs, you have maximum control over their operating system and supporting software components.

Web Apps

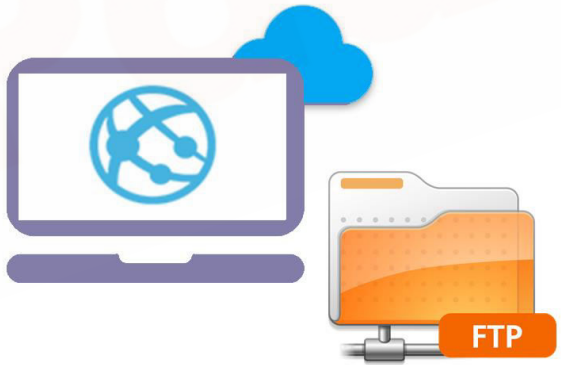
- Alternatively, you can choose to host your web application by using the Web Apps feature.
- You can upload a custom web application code into it or deploy any of the Azure
- You can also scale web apps horizontally by changing the number of instances and relying on Azure built-in load balancing to distribute the traffic across them.
- You also cannot establish an RDP or SSH connection to the virtual machine hosting a web app.

Cloud Services

- You also can choose to build a web application as a cloud service.
- A cloud service consists of a web role, which serves as the front-end of an application, and a worker role, which is responsible for running background tasks.
- You can scale each role independently by specifying the number of role instances, which gives you more control over scalability compared with web apps.
- Since role instances run Windows Server, you can connect to them by using RDP.
- Platform as a service (PaaS) cloud services are unique to Azure.
- Existing web applications might require significant modification before they can run as a cloud service.

Azure Web Apps:
FTP Transfer

- To deploy a web app by using FTP, you must configure your client with the destination URL of the remote FTP server and the credentials that FTP can use to authenticate.
- In addition, you must choose either the active or the passive FTP mode.
- These are the Azure web app deployment credentials.



Hands-On

Hands-On

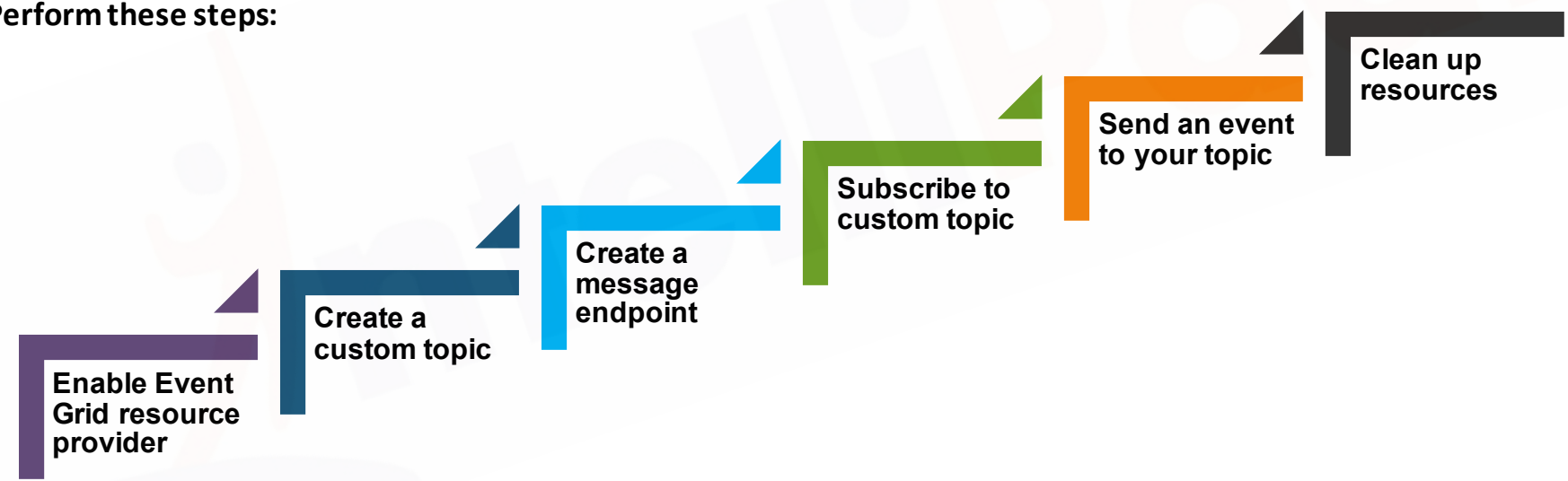
- Configure & deploy code via WebApp
- Configure & deploy code via cloud storage service.

Configure Serverless Computing

Route custom events to web endpoint with the Azure portal and Event Grid

Azure Event Grid is an event service for the cloud.

Perform these steps:



Manage a function app in the Azure portal

In Azure Functions, a function app provides the execution context for your individual functions. Function app behaviors apply to all functions hosted by a given function app.

Perform these steps:

In the search bar at the top of the portal, type the name of your function app and select it from the list.

Favorite Functions in the portal

- Log in to the Azure portal.
- Click the arrow at the bottom left to expand all services, type Functions in the Filter field, and then click the star next to Function Apps.
- Close the menu, then scroll down to the bottom to see the Functions icon. Click this icon to see a list of all your function apps. Click your function app to work with functions in this app.

Functions app settings tab

- The Settings tab is where you can update the Functions runtime version used by your function app. It is also where you manage the host keys used to restrict HTTP access to all functions hosted by the function app.

Platform features tab

- Function apps run in, and are maintained, by the Azure App Service platform. As such, your function apps have access to most of the features of Azure's core web hosting platform. The Platform features tab is where you access the many features of the App Service platform that you can use in your function apps.

Manage a function app in the Azure portal

Further, we can focuses on the following App Service features in the Azure portal that are useful for Functions:

App Service editor (to modify)

Application settings (configure and manage framework versions, remote debugging, app settings etc.)

Console (In-portal console is an ideal developer tool to interact with function app from the command line)

Advanced tools (Advanced tools for App Service called Kudu provide access to advanced administrative features of your function app)

Deployment options (Functions lets you develop your function code on your local machine)

CORS - Cross-Origin Resource Sharing (To prevent malicious code execution in your services, App Service blocks calls to your function apps from external sources)

Authentication (App Service supports Azure Active Directory authentication and sign in with social providers, such as Facebook, Microsoft, and Twitter)

API definition (API definition lets you configure and describe our API)

QUIZ

Quiz 1

Azure Apps Service?

A	It is an azure application which provides you major cloud services
B	It is a comprehensive platform for building cloud-based applications
C	It helps in the maintenance of your application
D	A type of service which provides security to the cloud-based applications

Answer 1

Azure Apps Service?

A	It is an azure application which provides you major cloud services
B	It is a comprehensive platform for building cloud-based applications
C	It helps in the maintenance of your application
D	A type of service which provides security to the cloud-based applications

Quiz 2

Which of the programming languages you can use to build a web app in Azure?

A	Python
B	R
C	Go
D	C++

Answer 2

Which of the programming languages you can use to build a web app in Azure?

A	Python
B	R
C	Go
D	C++

Quiz 3

Which is the right option of an Azure cloud storage service?

A	Dropbox
B	Github
C	Blob Storage
D	Azure Storage

Answer 3

Which is the right option of an Azure cloud storage service?

A	Dropbox
B	Github
C	Blob Storage
D	Azure Storage

Quiz 4

Which one of them is a manual method of deploying web apps?

A	FTP
B	Dropbox
C	Onedrop
D	Azure Storage

Answer 4

Which one of them is a manual method of deploying web apps?

A	FTP
B	Dropbox
C	Onedrop
D	Azure Storage

Quiz 5

To host a web application, which is the right option?

A	Azure Vms
B	Web Apps
C	Azure Cloud Services
D	All of the above

Answer 5

To host a web application, which is the right option?

A	Azure Vms
B	Web Apps
C	Azure Cloud Services
D	All of the above

Quiz 6

Which is the right way to manage Function app in Azure portal?

A Use App Service Editor >> App Settings >> Use Console >> Advanced Tools >> Deployment options >> CORS >> Authentication >> API Definition

B Advanced Tools >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Authentication >> API Definition

C API Definition >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Advanced Tools >> Authentication

D API Definition >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Advanced Tools >> Authentication >> Deployment options

Answer 6

Which is the right way to manage Function app in Azure portal?

A	Use App Service Editor >> App Settings >> Use Console >> Advanced Tools >> Deployment options >> CORS >> Authentication >> API Definition
B	Advanced Tools >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Authentication >> API Definition
C	API Definition >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Advanced Tools >> Authentication
D	API Definition >> Use App Service Editor >> App Settings >> Use Console >> Deployment options >> CORS >> Advanced Tools >> Authentication >> Deployment options

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