

TOPIC

World of Serverless with
Azure Functions

SPEAKER

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27th March 2021



6pm



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Likes

Cloud Automation & Security



Agenda

Intro

Microsoft Azure

Azure Functions

Demo Time

Q&A

Intro



What is Azure?

The Azure cloud platform is more than 200 products and cloud services designed to help you bring new solutions to life—to solve today’s challenges and create the future. Build, run, and manage applications across multiple clouds, on-premises, and at the edge, with the tools and frameworks of your choice.

Start free

↓ Your most popular questions answered



Trust your cloud

Get security from the ground up, backed by a team of experts, and proactive compliance trusted by enterprises, governments, and startups.



Operate hybrid seamlessly

On-premises, across multiple clouds, and at the edge—we’ll meet you where you are. Integrate and manage your environments with services designed for hybrid cloud.



Build on your terms

With a commitment to open source, support for all languages and frameworks, build how you want, and manage the way you want to.

What is Azure



App Service

Quickly create powerful cloud apps for web and mobile



Azure Cognitive Services

Add smart API capabilities to enable contextual interactions



Azure Cosmos DB

Fast NoSQL database with open APIs for any scale



Azure Functions

Process events with serverless code



Azure Kubernetes Service (AKS)

Simplify the deployment, management, and operations of Kubernetes



Azure Quantum (Preview)

Experience quantum impact today on Azure



Azure SQL

Modern SQL family for migration and app modernization



Linux Virtual Machines

Provision virtual machines for Ubuntu, Red Hat, and more



Windows Virtual Desktop

The best virtual desktop experience, delivered on Azure

Azure Products



Why Azure Functions?

- Multiple triggers
- Many supported language
- Different Deployments

Advantages of Azure Functions



Pay for what you use



No Infrastructure to manage




No maintenance of servers



Can be placed in existing Web App subscriptions



Simplify code writing



Deployment models

- Through portal
- VS Code / others IDE
- Azure Cloud Shell
- GitHub
- Upload as zip



Error handling

Output

Status: 500 Internal Server Error

```
{
  "id": "2fd84265-3137-4bd3-a077-f548272d3704",
  "requestId": "7b3168a5-7494-4825-9ef6-73764f3f4ab7",
  "statusCode": 500,
  "errorCode": 0,
  "message": "An error has occurred. For more information, please
check the logs for error ID 2fd84265-3137-4bd3-a077-f548272d3704"
}
```

run.ps1

Save

Save and run

</> Get function URL

```
1 this does not run
```

Logs



Errors and warnings



Too many logs. Refresh rate: 2 seconds.

```
2018-04-23T13:31:48.583 [Info] Function started (Id=abbf3cc1-b7c2-4d19-8358-3271ea2f3d12)
2018-04-23T13:31:48.958 [Error] this : The term 'this' is not recognized as the name of a
at run.ps1: line 1
+ this
+ ~~~~
+ CategoryInfo          : ObjectNotFound: (this:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException
2018-04-23T13:31:48.973 [Error] Exception while executing function: Functions.HttpTriggerP
2018-04-23T13:31:49.005 [Error] Function completed (Failure, Id=abbf3cc1-b7c2-4d19-8358-32
```

Invocation log [Refresh](#)

Function	Status
HttpTriggerPowerShell2 (Method: POST, Uri: ...)	✗
HttpTriggerPowerShell2 (Method: POST, Uri: ...)	✗
HttpTriggerPowerShell2 (Method: POST, Uri: ...)	✗

How does that scale?



Create Function App ...

Basics Hosting Monitoring Tags Review + create

Create a function app, which lets you group functions as a logical unit for easier management, deployment and sharing of resources. Functions lets you execute your code in a serverless environment without having to first create a VM or publish a web application.

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ
Resource Group * ⓘ

Microsoft Azure Sponsorship (5a698c36-f142-4886-98c1-bf821a0ec...
(New) hackthemountainprototype
[Create new](#)

Instance Details

Function App name *

hackthemountainprototype
.azurewebsites.net

Publish * ☒ Code ☐ Docker Container

Runtime stack *

Version *

Region *

Select a runtime stack
.NET
Node.js
Python
Java
PowerShell Core
Custom Handler

Create Prototype

Add function

Select development environment

Instructions will vary based on your development environment. [Learn more](#)

Development environment

Select a template

Use a template to create a function app that responds to events that invoke your functions. [Learn more](#)

 Filter

Develop in portal
Visual Studio
VS Code
Any editor + Core Tools
Develop in portal



Common PowerShell Scripts

- Interactive scripting language
- Included with Windows
- Open Source

Methods of integrating PowerShell

Run PowerShell locally

- Windows PowerShell
- PowerShell

Azure Automation

- Windows PowerShell

Azure Functions

- PowerShell

Demo Time



Questions?



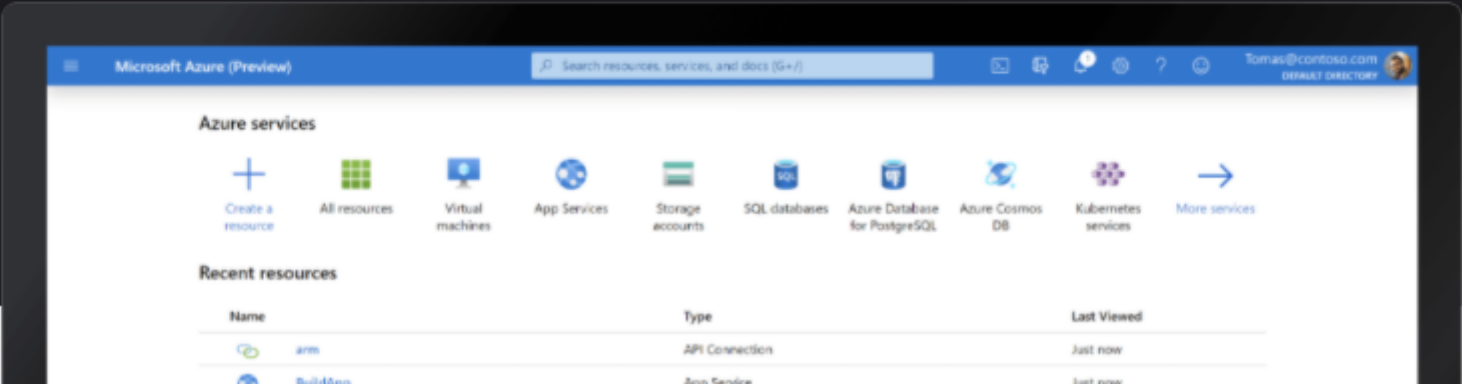
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The screenshot shows the Microsoft Azure portal interface. At the top, there's a blue header bar with the text "Microsoft Azure (Preview)" and a search bar. Below the header, there's a section titled "Azure services" with a row of icons for various services: "Create a resource", "All resources", "Virtual machines", "App Services", "Storage accounts", "SQL databases", "Azure Database for PostgreSQL", "Azure Cosmos DB", "Kubernetes services", and "More services". Below this, there's a section titled "Recent resources" with a table listing recent resources.

Name	Type	Last Viewed
arm	API Connection	Just now
BuildApp	App Service	Just now

<https://azure.microsoft.com/en-us/free/students/>

References

- <https://docs.microsoft.com/en-us/azure/azure-functions/durable/durable-functions-overview?tabs=csharp>
- <https://docs.microsoft.com/en-us/azure/azure-functions/functions-get-started?pivots=programming-language-csharp>
- <https://azure.microsoft.com/en-us/free/students/>