

Automate it with Azure Functions

A nighttime photograph of the London skyline. The Shard skyscraper is the central focus, illuminated with blue and white lights. To its left are several modern office buildings with glowing windows. In the foreground, the River Thames is visible with several boats, including a large white ship with many lights. The sky is a deep blue with some light clouds.

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Agenda

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Azure
Function Apps

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work?

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do with
PowerShell

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Why
PowerShell
???

P O W E R S H E L L

What are Azure Functions



Azure Web Apps



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

What problem are we solving?

- Using our scripting skills in the cloud
- Re-using existing code / scripts
- Faster deployment
- Less maintenance



Demo:

Exploring Azure Functions

Demo Summary

- Triggers available
- Scenarios available
- Experimental flag
- How to create Azure Function
- Delete Azure Function



Experimental Language Support: ☒ Enabled

PowerShell language
support is still experimental



Demo:

Create timed function



Demo Summary

- Create PowerShell function
- Used cron notation





Demo:

Azure PowerShell Function

Demo Summary

- Which PowerShell version
- What variables are defined
- Saw the variables & files
- Reconfigured function.json
- Used Invoke-RestMethod to run



Error handling

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

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"
}

Invocation log 🔄 Refresh

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



Demo:

Azure Function Errors

Demo Summary

- Had our function fail
- Looked at different error logs
- Fixed the code based on output



Writing better code

- Develop code in IDE/ISE
- Use source control
- Run script analyzer for coding practices

A futuristic digital interface background. On the right, a hand holds a glowing blue sphere. Overlaid on the scene are various digital elements: a wireframe building, a circular radar-like graphic with a bright center, and text labels 'SEARCH' and 'ANALYSIS'. A large diagonal line divides the image from the top-left to the bottom-right. The left side is dark grey, and the right side is a mix of blue and black with the digital elements.

Demo:

Writing Azure Functions

Demo Summary

- Different tools
 - ISESteroids
 - VsCode
 - Visual Studio
 - Online Editor
- Write Unit tests for your scripts



PowerShell best practices

- Develop code in IDE/ISE
- Use source control
- Run script analyzer for coding practices

Summary

- Use existing PowerShell skills
- Develop serverless code
- Interact with other services
- Generous free tier
- functions.azure.com

Questions?

Windows PowerShell

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\jcjbr> \$? = true

powershell

powershell has stopped working

A problem caused the program to stop working correctly.
Windows will close the program and notify you if a solution is
available.

Close program