

Automate it with Azure Functions



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Agenda

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What are
Azure
Functions

2

How do they
work?

3

What can we
do with
PowerShell

4

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Questions

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

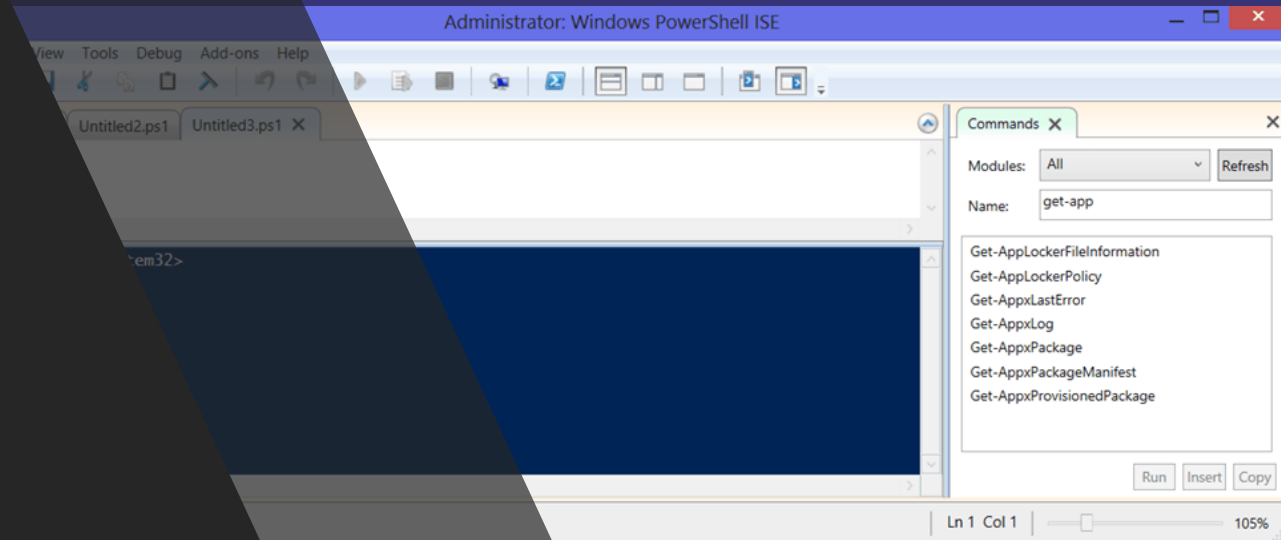
- Had our function fail
- Looked at different error logs
- Fixed the code based on output





VS Code

Which tools?



PowerShell



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 proper tools
- Use source control
- Run script analyzer for coding practices
- Keep your code simple
- Write tests

Summary

- Use existing PowerShell skills
- Develop serverless code
- Interact with other services
- Free tier
- functions.azure.com
- [Haveibeenpwned.com](https://haveibeenpwned.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