Automate it with Azure Functions

Jaap Brasser

@jaap_brasser

jaapbrasser.com/about

- Technical Marketing Engineer at Rubrik
- PowerShell Conference EU/Asia
- Dutch PowerShell User Group
- Speaker / Blogger / Tech Enthusiast
- PowerShell Gallery
- TechNet / MSTechCommunity

rubrik

@jaap_brasser

Agenda

1 What are Azure Function Apps

2 How do they work?

3 What can we do with PowerShell

4 Demos

5 Questions

Why PowerShell ???

P O W E R S H E L L

>_

interface
WWW.INTERFACETT.COM
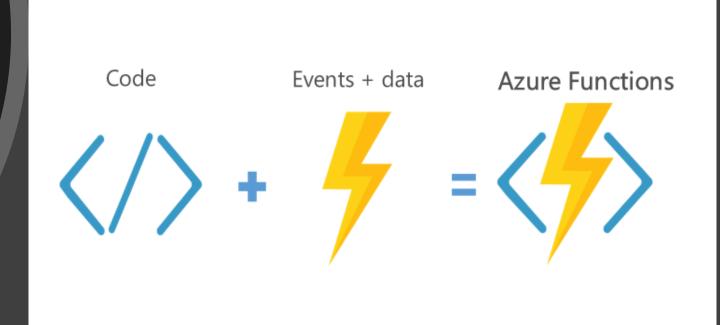
What are Azure Functions

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
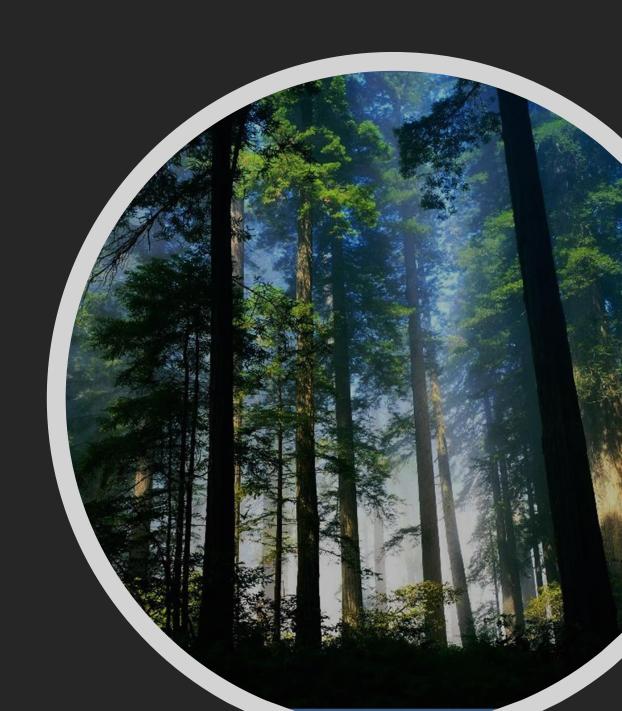- Delete Azure Function

Experimental Language Support: [toggle] Enabled

PowerShell language
support is still experimental

Demo:

Create timed function

Demo Summary

- Create PowerShell function
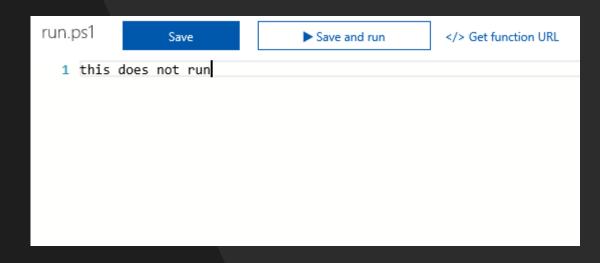- Used cron notation

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 Er

```
{
  "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

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?