

A scenic view of a canal in Amsterdam at dusk. The water reflects the warm lights from the buildings and street lamps. A stone bridge with multiple arches spans the canal. In the background, a row of historic Dutch houses with gabled roofs and many windows is visible. Some windows are lit up, and bicycles are parked along the bridge. Bare trees are visible on the left side of the canal.

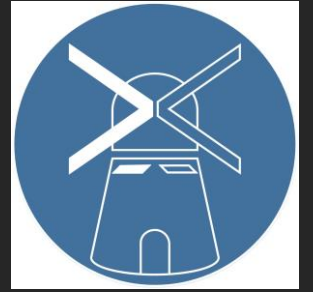
Jaap Brasser  
@jaap\_brasser

# Create Awesome Azure Functions with PowerShell





[jaapbrasser.com/about](http://jaapbrasser.com/about)



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



 @jaap\_brasser

# Agenda

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What are Azure Functions

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How do they work?

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What can we do with PowerShell

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Demos

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Questions



Why  
PowerShell  
???

P O W E R S H E L L

What is  
serverless?



# What are Azure Functions



# Azure Web Apps





# Advantages of Azure Functions

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Pay for what you use

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No Infrastructure to manage

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No maintenance of servers

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Can be placed in existing subscriptions

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Simplify code writing



What are we solving?

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Using our scripting skills in the cloud

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Re-using existing code / scripts

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Faster deployment

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Less maintenance



Demo 1

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 2

Create timed function

# Demo Summary

- Create PowerShell function
- Used cron notation







Demo 3

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 4

Azure Function Errors

# Demo Summary

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



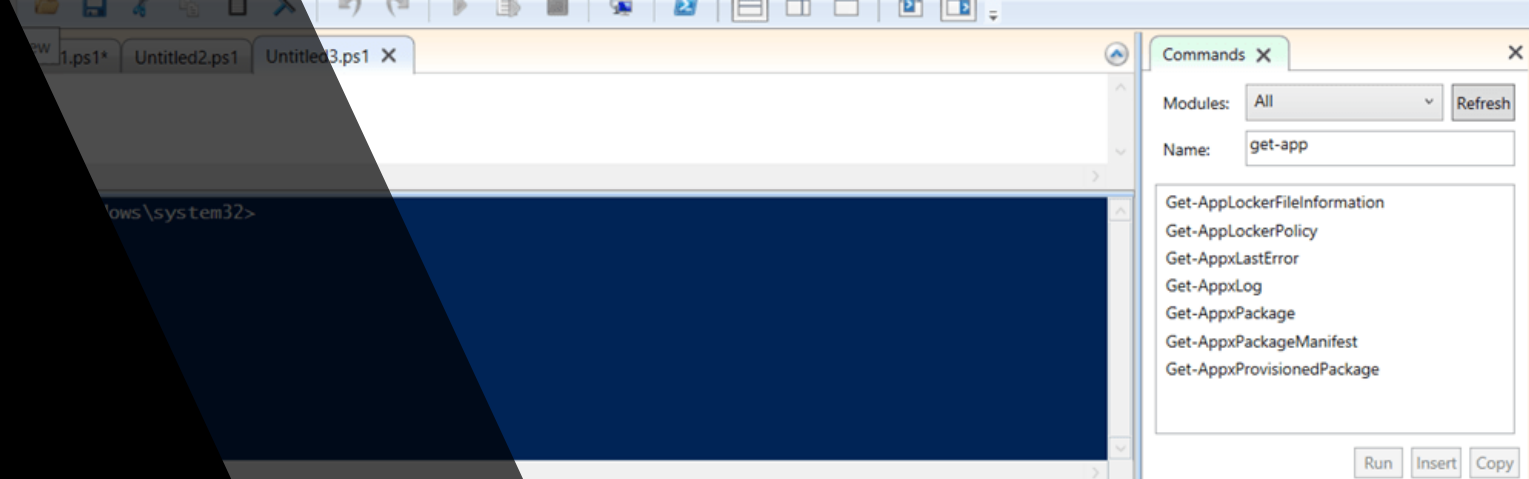
Which tools?



PowerShell



VS Code





# PowerShell best practices

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Develop code in proper tools

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Use source control

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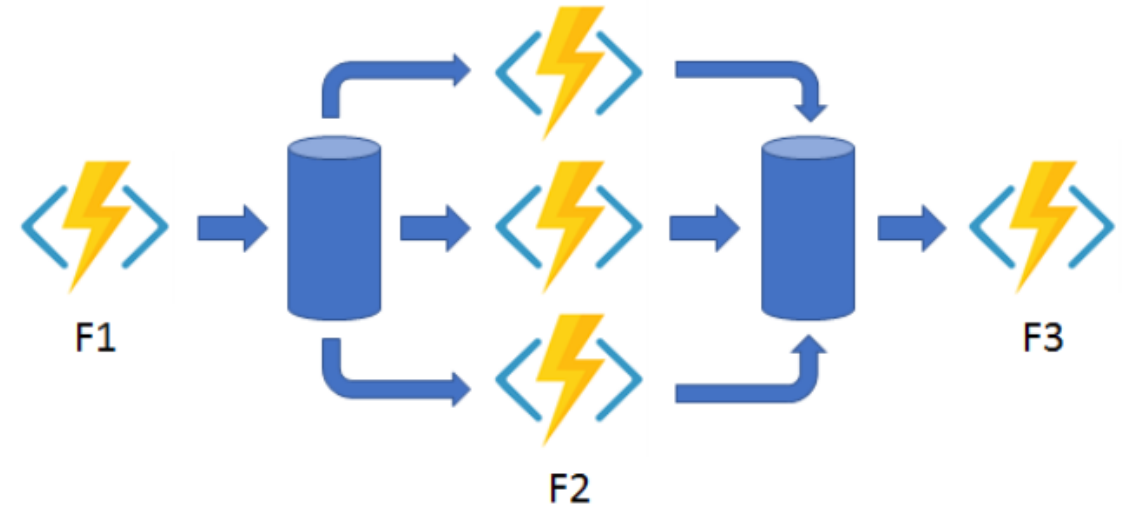
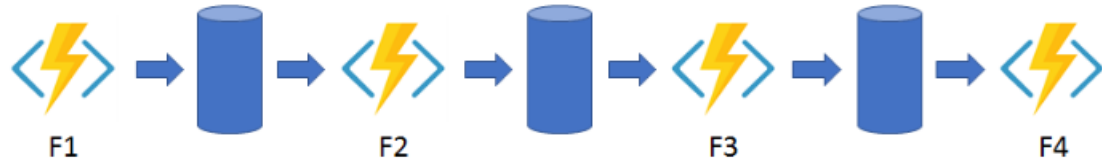
Run script analyzer for coding practices

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Keep your code simple

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Write tests



## Durable Functions scenarios

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# Durable Functions

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Open source on GitHub

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Task orchestration

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Extension of Azure Functions

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[github.com/Azure/durabletask](https://github.com/Azure/durabletask)

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No experimental languages



# Summary

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Use existing PowerShell skills

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Develop serverless code

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Interact with other services

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Free tier

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[functions.azure.com](https://functions.azure.com)



Questions? |