Level up your PowerShell experience, getting started with Pester

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Tweets	jaap_brasser
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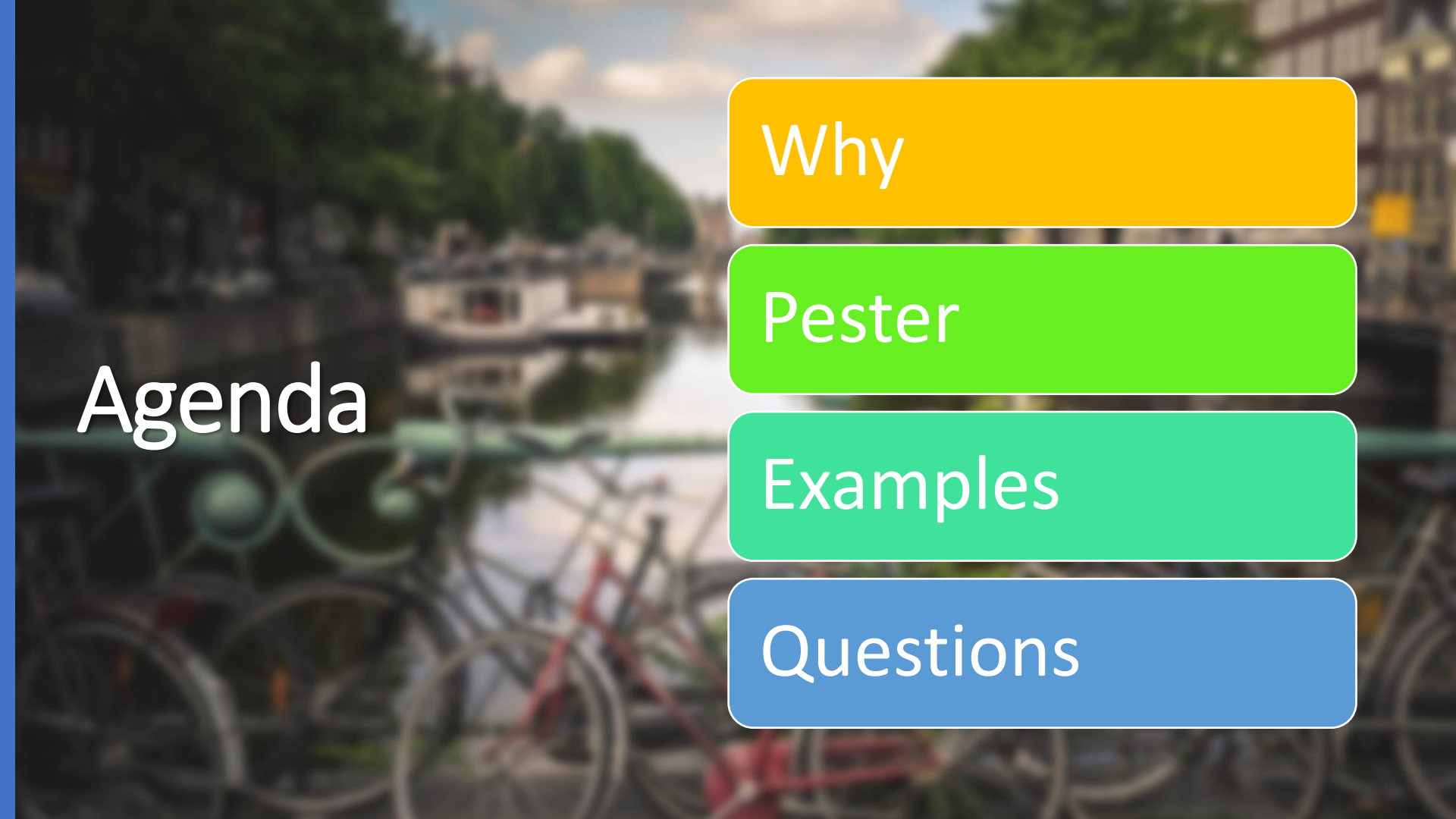
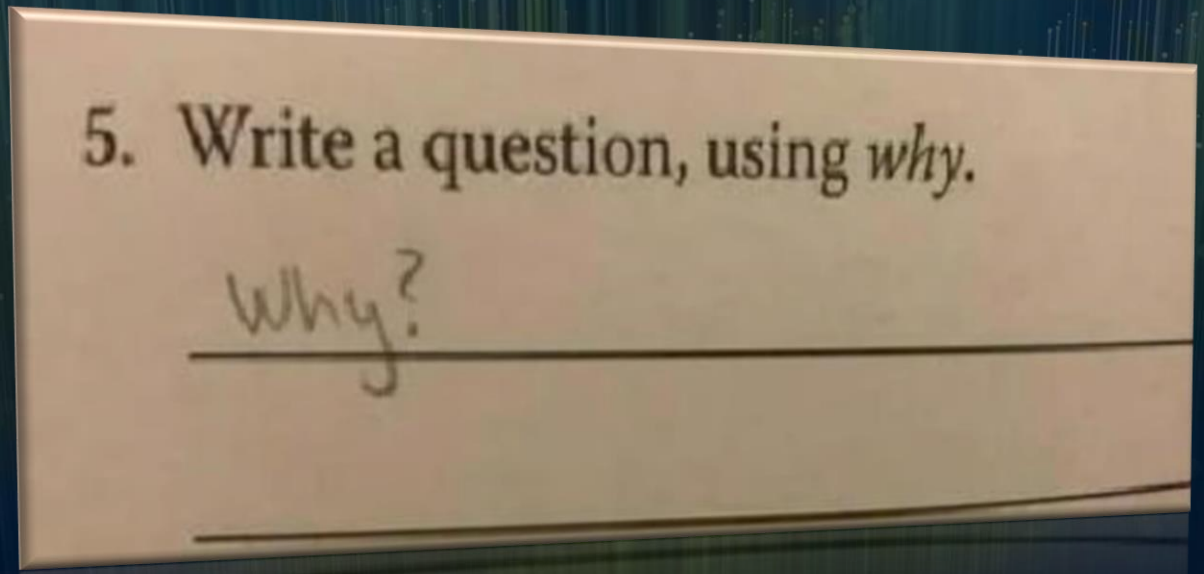
Does	Blogger, Speaker, Coder
Likes	Cloud Automation & Security

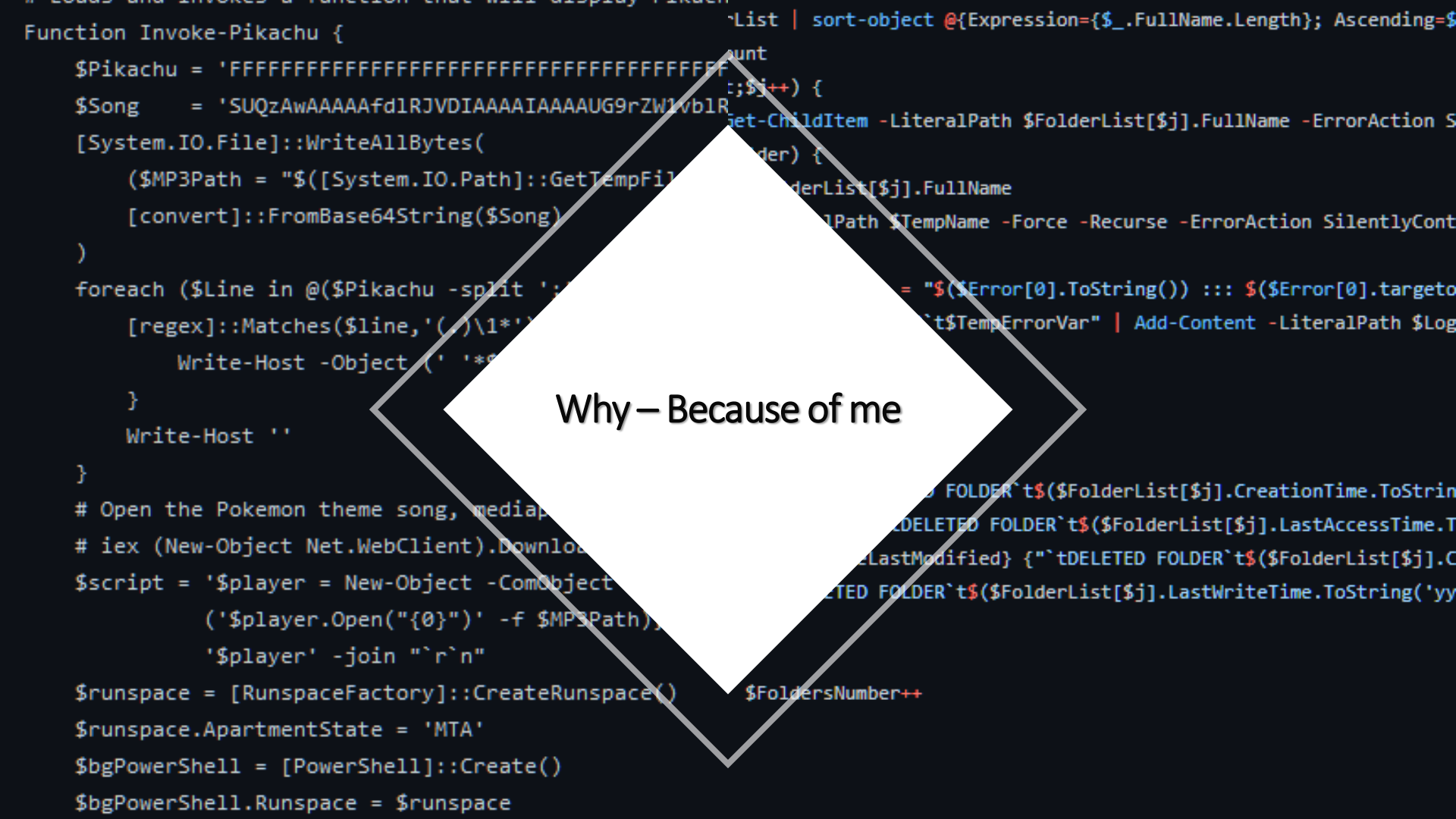


Agenda

- Why
- Pester
- Examples
- Questions

Why

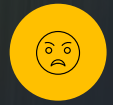



Function Invoke-Pikachu {
$Pikachu = 'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
$Song = 'SUQzAwAAAAAfdlRJVDIAAAAIAAAAUG9rZW1vblR
[System.IO.File]::WriteAllBytes(
($MP3Path = "$([System.IO.Path]::GetTempFi
[convert]::FromBase64String($Song)
)
foreach ($Line in @($Pikachu -split ':
[regex]::Matches($line,'(.)\1*'
Write-Host -Object ' '*
}
Write-Host ''
}
# Open the Pokemon theme song, mediap
# iex (New-Object Net.WebClient).Downloa
$script = '$player = New-Object -ComObject
('$player.Open("{0}")' -f $MP3Path)
'$player' -join "`r`n"
$runspace = [RunspaceFactory]::CreateRunspace()
$runspace.ApartmentState = 'MTA'
$bgPowerShell = [PowerShell]::Create()
$bgPowerShell.Runspace = $runspace
Why – Because of me
List | sort-object @{Expression={$_.FullName.Length}; Ascending=$
unt
;$j++) {
et-ChildItem -LiteralPath $FolderList[$j].FullName -ErrorAction S
der) {
derList[$j].FullName
lPath $TempName -Force -Recurse -ErrorAction SilentlyCont
= "$($Error[0].ToString()) ::: $($Error[0].targeto
`t$TempErrorVar" | Add-Content -LiteralPath $Log
FOLDER`t$($FolderList[$j].CreationTime.ToStrin
DELETED FOLDER`t$($FolderList[$j].LastAccessTime.T
LastModified} {"`tDELETED FOLDER`t$($FolderList[$j].C
TED FOLDER`t$($FolderList[$j].LastWriteTime.ToString('yy
$FoldersNumber++

Old Code

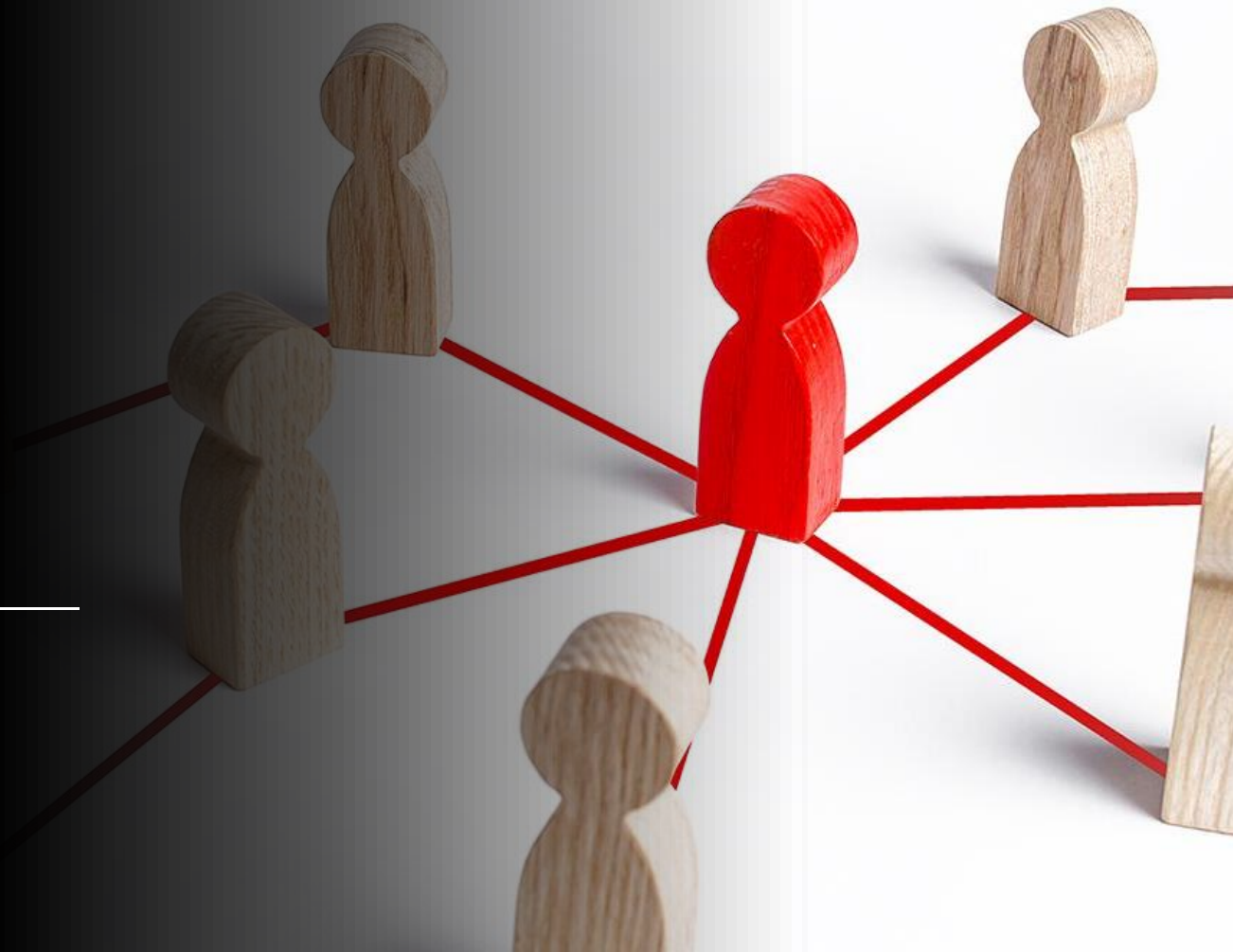
Bad Code

Weird Code

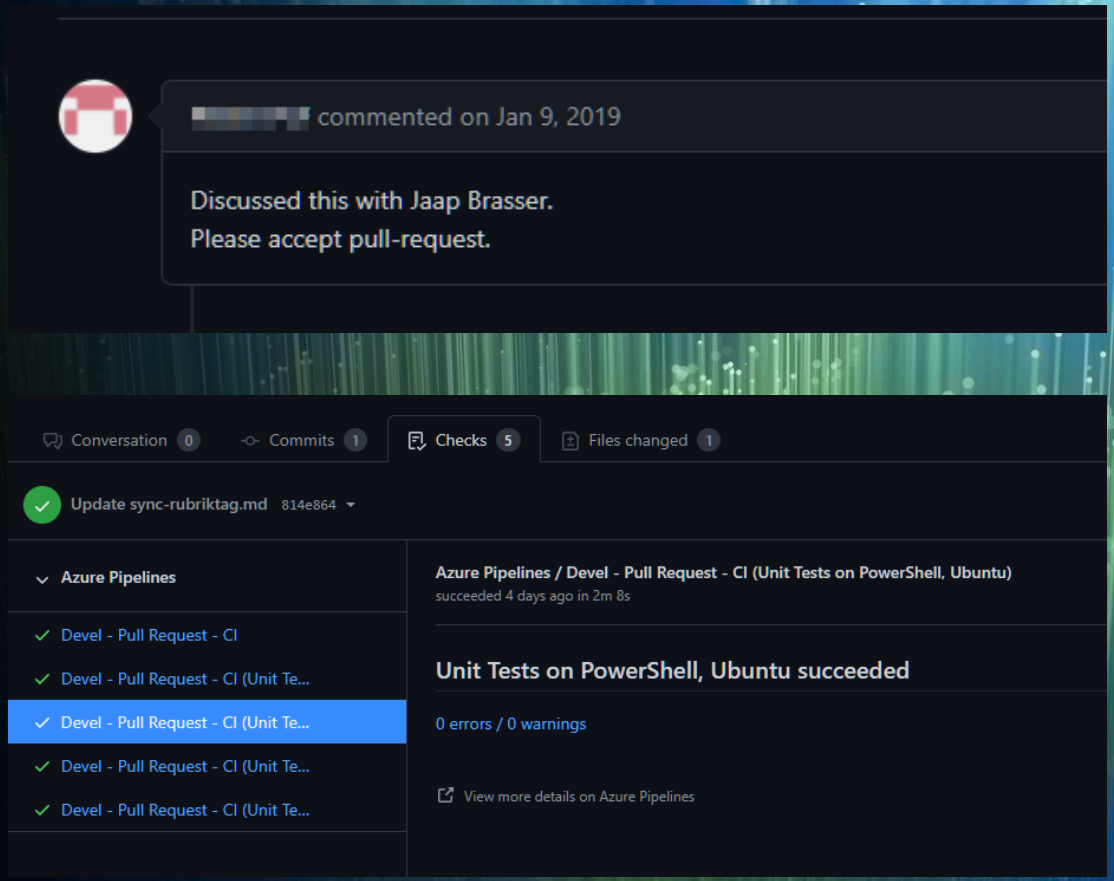


Jaap’s Code

Others



Bad vs Better



Why - Reasons

Efficiency

Reliability

Continuity

Trust

Code

Quality

Pester

pester

Pronunciation: /ˈpestər/, rhymes with tester

to annoy somebody,
especially by asking them
something many times

Microsoft

PowerShe

Connector of the Hybri

From **ANY** client
Manage **ANY** server
Running in **ANY** cloud*
*Or on-premises using **ANY** hypervisor
And **ANY** storage

DSLs & PowerShell

THOSE WHO DON'T
TOMATE ARE DOOMED
REPEAT THEMSELVES

https://devblogs.microsoft.com/powershell/domain-specific-languages-dsls-in-general-and-how-powershell-relates/

Pester specific terms

Describe
Context
It
Should
Be
Mock
Invoke-Pester

```
Describe 'Get-HelloWorld' -Tag 'Hello'{
    #TODO <tests go here>
}
```

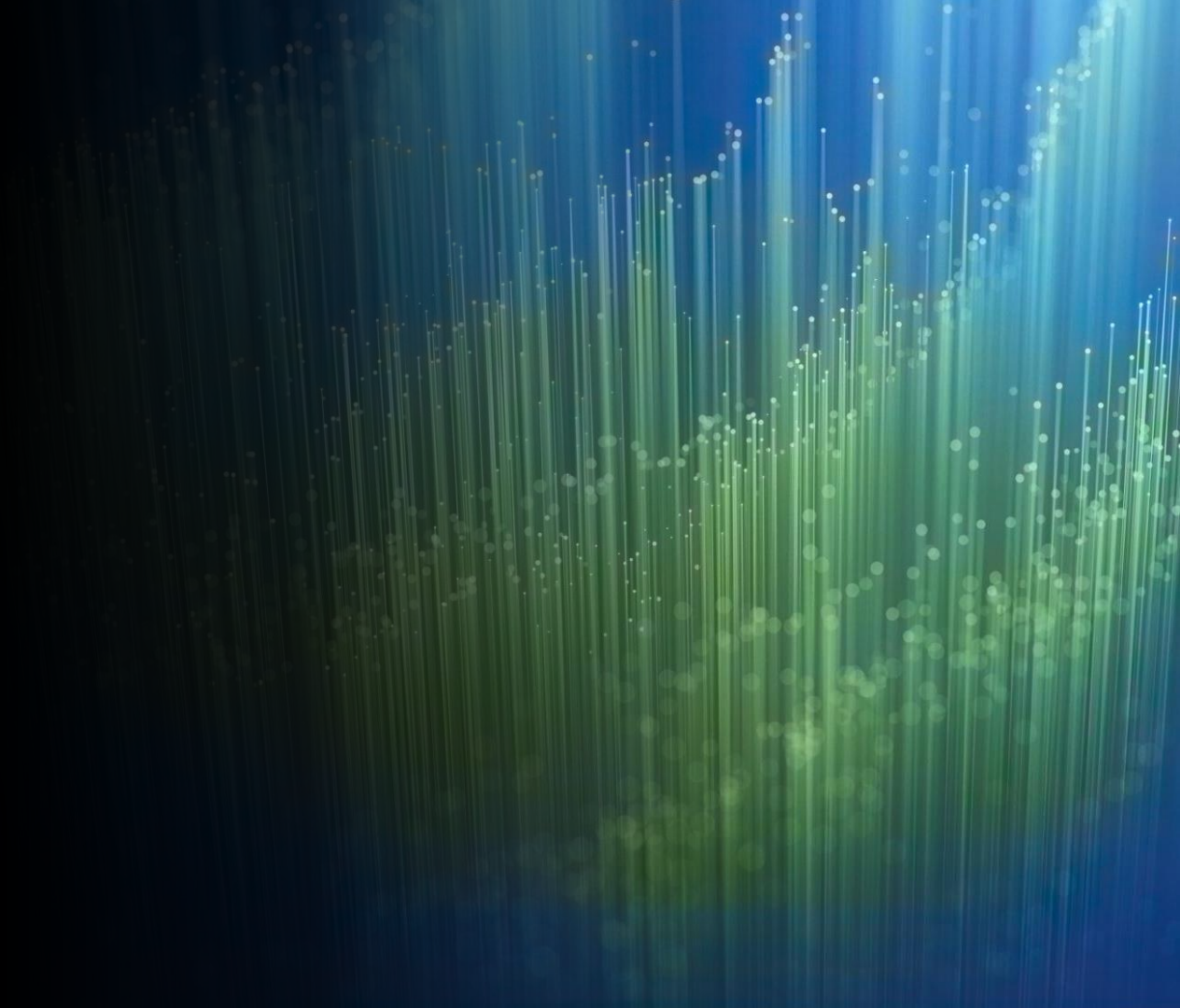
```
Describe "Get-HelloWorld" {
    It "writes output" {
      $expected = dir *.\Test
      Get-HelloWorld | Should Be $expected
    }
}
```

```
Describe "Get-HelloWorld" {
    Context "Basic test" {
        #TODO <tests go here>
    }
}
```

```
Describe "Get-HelloWorld" {
    Context "Example 1: Writes correct output" {
        It "writes output"  {
            #TODO <put more tests go here>
        }
    }
}
```

Keep in mind

- .tests.ps1
- Run from vscode
- Invoke-Pester
- Include CI



Building Pester Tests

01

Identify flow

02

What to Test

03

Build Tests

04

Validate Tests

Demo Time

My Journey

01

When

02

What

03

How Many

04

Environments

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