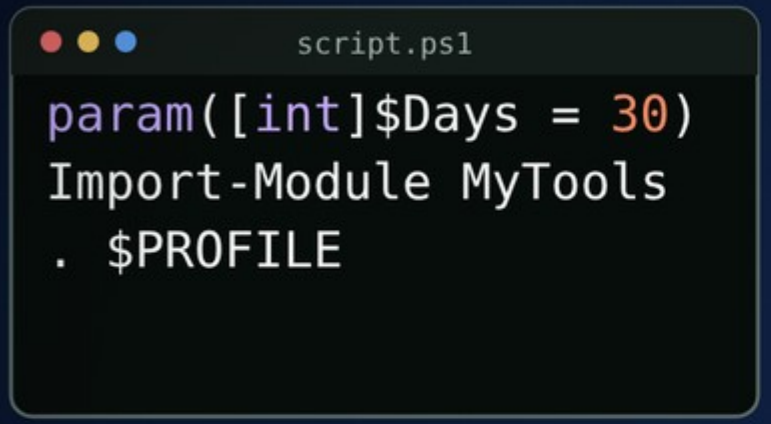
LESSON 10



PS>

Modules & Profile

Learn it all @MyWebUniversity



A FREE MYWEBUNIVERSITY COURSE

POWERSHELL SCRIPTING

LESSON 10

Scripts, Modules and Profiles

Execution policy, .ps1 files, script parameters, modules and $PROFILE

Execution Policy

terminal

```
PS> Get-ExecutionPolicy -List
PS> Set-ExecutionPolicy RemoteSigned -Scope CurrentUser
PS> Unblock-File .\downloaded.ps1
```

- On Windows, the execution policy decides which scripts may run. RemoteSigned is a sensible …
- It is a safety belt, not a security wall. Set it once for your user with Set-ExecutionPolicy.

01

Script Files and Parameters

Get-DiskReport.ps1

```
<#
.SYNOPSIS
  Shows free space on every drive.
.EXAMPLE
  .\Get-DiskReport.ps1 -MinFreeGB 20
#>
param([int]$MinFreeGB = 10)
Get-PSDrive -PSProvider FileSystem | Where-Object { $_.Free / 1GB -lt $MinFreeGB }
```

- A script is a dot ps1 file. Put a param block at the top, exactly like a function, and run …
- Comment-based help with synopsis and example lines makes Get-Help work on your own scripts.

02

Modules

MyTools.psm1

```
# Documents\PowerShell\Modules\MyTools\MyTools.psm1
function Get-Uptime { (Get-Date) - (Get-CimInstance Win32_OperatingSystem).LastBootUpTime }
function Get-TopProcess { Get-Process | Sort-Object CPU -Descending | Select-Object -First 5 }
Export-ModuleMember -Function Get-Uptime, Get-TopProcess

# PS> Import-Module MyTools; Get-Uptime
```

- A module is a package of functions. PowerShell finds thousands in the PowerShell Gallery: …
- Your own module is just a dot psm1 file of functions in a folder with the same name. …

03

The PowerShell Gallery

terminal

```
PS> Find-Module -Name *excel*
PS> Install-Module ImportExcel -Scope CurrentUser
PS> Get-Process | Export-Excel .\procs.xlsx
PS> Get-Module -ListAvailable
```

- The PowerShell Gallery is the public library of modules, for cloud, databases, Active …
- Install for your user with dash Scope CurrentUser, and always check who publishes a module …

04

Your Profile

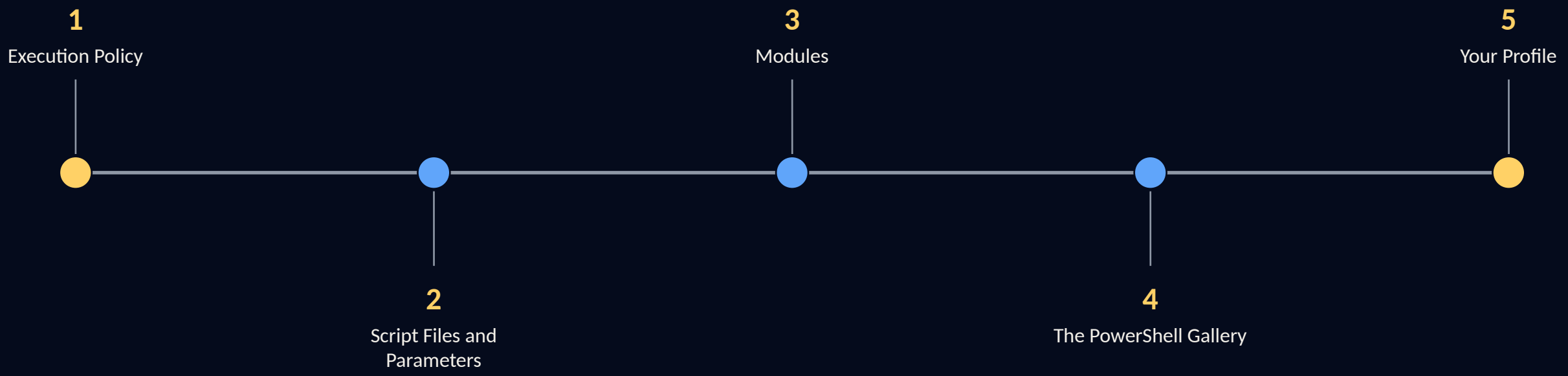
profile.ps1

```
# PS> if (!(Test-Path $PROFILE)) { New-Item $PROFILE -Force }
Set-Alias np notepad
Import-Module MyTools
function prompt { "PS $($PWD.Path.Split('\')[-1])> " }
# PS> . $PROFILE     # reload
```

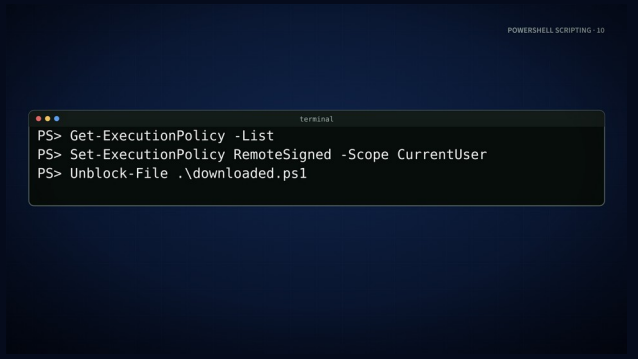
- dollar PROFILE is a script that runs every time PowerShell starts, like dot zshrc in Zsh. …
- Create it with New-Item if it does not exist, and reload with dot-sourcing: a dot, a space, …

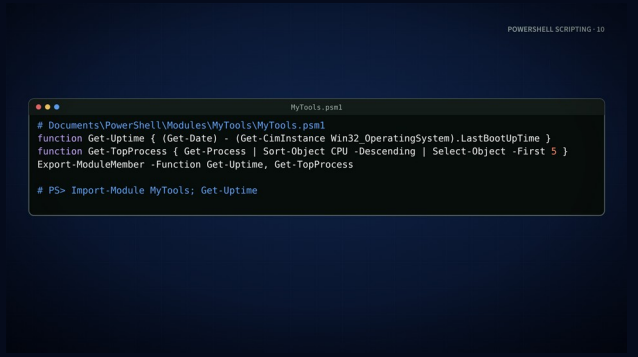
05

Lesson Map


1
Execution Policy
2
Script Files and Parameters
3
Modules
4
The PowerShell Gallery
5
Your Profile

Sources and Further Reading





Thank you for watching

MyWebUniversity.com

Free technical education since 2000 — English and Dari

@MyWebUniversity · @MyWebUniversity-Dari