

¿Cómo sería la certificación Linux Essentials para PowerShell? (posible equivalencia entre Linux y PowerShell)

Introduction

Windows PowerShell uses a «verb-noun» naming system

The Linux Community and a Career in Open Source

- >Linux Evolution and Popular Operating Systems
- >->Key Knowledge Areas:
 - >->->Desktop Applications
 - >->->Server Applications
 - >->->Development Languages
 - >->->Package Management Tools and repositories
- >->Terms and Utilities:
 - >->->OpenOffice.org, LibreOffice, Thunderbird, Firefox, GIMP
 - >->->Apache HTTPD, NGINX, MySQL, NFS, Samba
 - >->->C, Java, Perl, shell, Python, Samba

- >->->dpkg, apt-get, rpm, yum
- >Understanding Open Source Software and Licensing
- >->Key Knowledge Areas:
 - >->->Licensing
 - >->->Free Software Foundation (FSF), Open Source Initiative (OSI)
 - >->Terms and Utilities:
 - >->->GPL, BSD, Creative Commons
 - >->->Free Software, Open Source Software, FOSS, FLOSS
 - >->->Open Source business models
- >ICT Skills and Working in Linux
- >->Key Knowledge Areas:
 - >->->Desktop Skills
 - >->->Getting to the Command Line
 - >->->Industry uses of Linux, Cloud Computing and Virtualization
 - >->Terms and Utilities:
 - >->->Using a browser, privacy concerns, configuration options, searching the web and saving content
 - >->->Terminal and Console
 - >->->>Password issues
 - >->->Privacy issues and tools
 - >->->Use of common open source applications in presentations and projects

Finding Your Way on a Linux System

- >Command Line Basics
- >->Key Knowledge Areas:
 - >->->Basic shell

->->->Command line syntax

Get-Verb

Get-Command -Noun

->->->Variables

- <http://www.jesusninoc.com/2014/12/31/curso-de-powershell/>

->->->Globbing

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?

->->->Quoting

"

'

->->Terms and Utilities:

->->->Bash

->->->echo

Write-Host

->->->history

Get-History

->->->PATH env variable

\$Env:Path

[Environment]::GetEnvironmentVariable("Path")

->->->export

->->->type

Get-Content

->Using the Command Line to Get Help

->->Key Knowledge Areas:

->->->Man

Get-Help

->->->Info

->->Terms and Utilities:

->->->man

Get-Help

->->->info

Get-Help

->->->Man pages

Get-Help

->->->/usr/share/doc/

Get-Help

->->->locate

->Using Directories and Listing Files

->->Key Knowledge Areas:

->->->Files, directories

Get-ChildItem -File

Get-ChildItem -Directory

->->->Hidden files and directories

Get-ChildItem -Hidden

->->->Home

\$home

->->->Absolute and relative paths

c:\

..\

->->Terms and Utilities:
->->->Common options for ls

Get-ChildItem

->->->Recursive listings

Get-ChildItem -Recurse

->->->cd

Set-Location

->->->. and ..

.

..

->->->home and ~

Set-Location ~

->Creating, Moving and Deleting Files

->->Key Knowledge Areas:

->->->Files and directories

Get-ChildItem -File

Get-ChildItem -Directory

->->->Case sensitivity

->->->Simple globbing and quoting

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->->Terms and Utilities:

->->->mv, cp, rm, touch

Move-Item

Copy-Item

Remove-Item

New-Item

->->->mkdir, rmdir

New-Item

Remove-Item

The Power of the Command Line

->Archiving Files on the Command Line

->->Key Knowledge Areas:

->->->Files, directories

Get-ChildItem -File

Get-ChildItem -Directory

->->->Archives, compression

Get-ChildItem -File

->->Terms and Utilities:

->->->tar

Compress-Archive

Expand-Archive

->->->Common tar options

->->->gzip, bzip2

Compress-Archive

Expand-Archive

->->->zip, unzip

Compress-Archive

Expand-Archive

->Searching and Extracting Data from Files

->->Key Knowledge Areas:

->->->Command line pipes

Get-Command | Select-Object CommandType, name

->->->I/O re-direction

Get-Command > fichero.txt

->->->Basic Regular Expressions ., [], *, ?

Get-ChildItem .

Get-ChildItem | Where-Object {\$_.Name -match "\d\[^\d]"}>

Get-ChildItem *.iso

Get-ChildItem *.is?

->->Terms and Utilities:

->->->grep

Get-ChildItem | select-object name | Select-String 2015

->->->less

more

->->->cat, head, tail

Get-Content

Get-Content -ReadCount

->->->sort

Get-ChildItem | Sort-Object

->->->cut

Get-ChildItem | Select-Object Name

->->->wc

(Get-ChildItem | Select-Object Name).count

->Turning Commands into a Script

->->Key Knowledge Areas:

->->->Basic shell scripting

->->->Awareness of common text editors

->->Terms and Utilities:

->->->#! (shebang)

->->->/bin/bash

->->->Variables

- <http://www.jesusninoc.com/2014/12/31/curso-de-powershell/>

->->->Arguments

->->->for loops

- <https://www.jesusninoc.com/09/29/bucles/>

->->->echo

Write-Host "Hi"

->->->Exit status

exit

The Linux Operating System

->Choosing an Operating System

->->Key Knowledge Areas:

->->->Windows, Mac, Linux differences

->->->Distribution life cycle management

->->Terms and Utilities:

->->->GUI versus command line, desktop configuration

->->->Maintenance cycles, Beta and Stable

->Understanding Computer Hardware

->->Key Knowledge Areas:

->->->Hardware

#Serial Number, Vendor, information

Get-WmiObject -Class Win32_ComputerSystem

#Bios Information , including Version Number of BIOS

Get-WmiObject -Class win32_bios

#Battery Information

Get-WmiObject -Class win32_battery

#Serial Number, Capacity, Part Number of Installed Memory Stick

Get-WmiObject -Class win32_Physicalmemory

#Capacity, Serial Number of Drive and other info of the Hard-disk

Get-WmiObject -Class win32_DiskDrive

#Monitor Information including Resolutions

Get-WmiObject -Class win32_DesktopMonitor

#Information Related Cd Drive

Get-WmiObject -Class win32_cdromdrive

#Network Adaptor information contains, manufacturer, MAC ID etc

Get-WmiObject -Class win32_networkadapter

#Mouse related information

Get-WmiObject -Class win32_pointingdevice

#OS Name, OSArchitecture, Version Info

Get-WmiObject -Class win32_operatingsystem

#DeviceID, Free Space, Size of Partition

```
Get-WmiObject -Class win32_logicalDisk
```

#Mapped Network Drives

```
Get-WmiObject -Class Win32_NetworkConnection
```

#List of Installed Printers

```
Get-WmiObject -Class win32_printer
```

#List of Printer Drivers

```
Get-WmiObject -Class win32_PrinterDriver
```

#IP Address, DHCP , DNS and other information of Network Drivers

```
Get-WmiObject -Class Win32_NetworkAdapterConfiguration
```

#Command that runs automatically when a user logs onto the computer system

```
Get-WmiObject -Class win32_startupCommand
```

#All Running Processes

```
Get-WmiObject -Class win32_process
```

#List of All Services

```
Get-WmiObject -Class win32_Service
```

#List of Installed Software

```
Get-WmiObject -Class win32_Product
```

->->Terms and Utilities:

->->->Motherboards, processors, power supplies, optical drives, peripherals

```
Get-WmiObject -Class Win32_Processor | Select -Property Name, Number*
```

```
Get-WmiObject Win32_BIOS -computername $computer
```

```
Get-WmiObject -query "select Name,Status from Win32_PnPEntity"
```

->->->Hard drives and partitions, /dev/sd*

Get-WmiObject -Class win32_DiskDrive

->->->Drivers

Get-Process -Module

->Where Data is Stored

->->Key Knowledge Areas:

->->->Programs and configuration, packages and package databases

Get-WmiObject -Class Win32_Product

Get-Package

Install-Package filezilla

->->->Processes, memory addresses, system messaging and logging

Get-Process

@(Get-Process).where{\$_.WorkingSet -gt 100MB}

@(Get-Process).where{\$_.WS -gt 100MB}

->->Terms and Utilities:

->->->ps, top, free

Get-Process

->->->syslog, dmesg

Get-EventLog -LogName System

->->->/etc/, /var/log/

Get-EventLog -LogName System

->->->/boot/, /proc/, /dev/, /sys/

->Your Computer on the Network

- <http://www.jesusninoc.com/2015/11/13/cmdlets-for-tcpip-m>

[odel-layers/](#)

- >->Key Knowledge Areas:
- >->->Internet, network, routers
- >->->Querying DNS client configuration
- >->->Querying Network configuration
- >->Terms and Utilities:
- >->->route, ip route show
- >->->ifconfig, ip addr show
- >->->netstat, ip route show
- >->->/etc/resolv.conf, /etc/hosts
- >->->IPv4, IPv6
- >->->ping
- >->->host

Security and File Permissions

- >Basic Security and Identifying User Types
- >->Key Knowledge Areas:
- >->->Root and Standard Users

Get-WmiObject -Class Win32_Account

net user

- >->->System users

Get-WmiObject -Class Win32_Account

net user

- >->Terms and Utilities:
- >->->/etc/passwd, /etc/group

Get-WmiObject -Class Win32_Account

net user

->->->id, who, w

net user

->->->sudo, su

Get-WmiObject -Class Win32_Account

net user

->Creating Users and Groups

->->Key Knowledge Areas:

->->->User and group commands

Get-WmiObject -Class Win32_Account

net user

net localgroup

->->->User IDs

Get-WmiObject -Class Win32_Account

net user

net localgroup

->->Terms and Utilities:

->->->/etc/passwd, /etc/shadow, /etc/group, /etc/skel/

Get-WmiObject -Class Win32_Account

net user

net localgroup

->->->id, last

->->->useradd, groupadd

Get-WmiObject -Class Win32_Account

net user

net localgroup

->->->passwd

net user

->Managing File Permissions and Ownership

->->Key Knowledge Areas:

->->->File/directory permissions and owners

Get-Acl

->->Terms and Utilities:

->->->ls -l, ls -a

Get-Acl

->->->chmod, chown

Set-Acl

- <http://www.jesusninoc.com/2015/08/19/anadir-permiso-ntfs-a-una-carpeta/>

->Special Directories and Files

->->Key Knowledge Areas:

->->->Using temporary files and directories

->->->Symbolic links

->->Terms and Utilities:

->->->/tmp/, /var/tmp/ and Sticky Bit

->->->ls -d

->->->ln -s