Lab10-PowershellScripting
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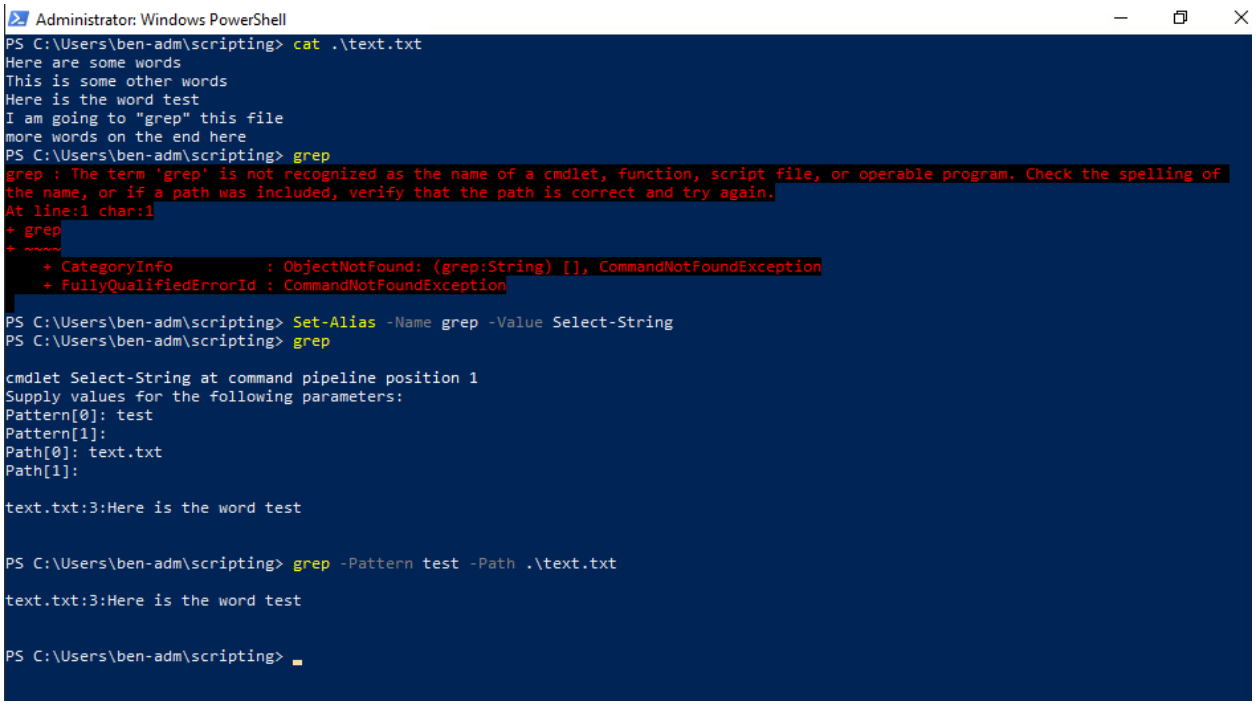
SYS255
FA23

Deliverables:

1. Command alias: grep = Select-String



2. Servers.ps1 script

Administrator: Windows PowerShell

```
PS C:\Users\ben-adm\scripting> cat .\servers.ps1
$servers = cat .\servers.txt
foreach($server in $servers) {
        echo "Pinging $server"
        ping -n 1 $server
}
PS C:\Users\ben-adm\scripting> .\servers.ps1
Pinging champlain.edu

Pinging champlain.edu [208.115.107.132] with 32 bytes of data:
Reply from 208.115.107.132: bytes=32 time=73ms TTL=48

Ping statistics for 208.115.107.132:
    Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 73ms, Maximum = 73ms, Average = 73ms
Pinging vermont.gov

Pinging vermont.gov [199.107.32.183] with 32 bytes of data:
Reply from 199.107.32.183: bytes=32 time=24ms TTL=237

Ping statistics for 199.107.32.183:
    Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 24ms, Maximum = 24ms, Average = 24ms
Pinging mcsp.one

Pinging mcsp.one [217.160.0.8] with 32 bytes of data:
Reply from 217.160.0.8: bytes=32 time=107ms TTL=51

Ping statistics for 217.160.0.8:
    Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 107ms, Maximum = 107ms, Average = 107ms
PS C:\Users\ben-adm\scripting>
```

3. Resolve Script

Administrator: Windows PowerShell

```
PS C:\Users\ben-adm\scripting> cat .\resolve.ps1
param([string] $type, [string] $server)

$servers = cat $server

foreach($serv in $servers) {
        Resolve-DnsName $serv -Type $type | Select-Object Name, IPAddress
}
PS C:\Users\ben-adm\scripting> .\resolve.ps1 -type A -server .\servers.txt

Name           IPAddress
----           ---------
champlain.edu 208.115.107.132
vermont.gov    199.107.32.183
mcsp.one       217.160.0.8


PS C:\Users\ben-adm\scripting>
```

4. Remote PS Session

```
PS C:\Users\ben-adm\scripting> Get-ADComputer -Filter * | Select-Object Name

Name
----
AD02-BENJAMIN
WKS02-BENJAMIN
FS01-BENJAMIN
WEB01-BENJAMIN
BLOG01-BENJAMIN


PS C:\Users\ben-adm\scripting> Enter-PSSession -ComputerName FS01-BENJAMIN
[FS01-BENJAMIN]: PS C:\Users\ben-adm\Documents> ipconfig

Windows IP Configuration


Ethernet adapter Ethernet0:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::9db8:5de3:2a02:b978%6
   IPv4 Address. . . . . . . . . . . : 10.0.5.8
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 10.0.5.2
[FS01-BENJAMIN]: PS C:\Users\ben-adm\Documents>
```

5. Remote PS Command

```
PS C:\Users\ben-adm\scripting> Invoke-Command -ComputerName FS01-BENJAMIN -ScriptBlock { ping -n 1 localhost }

Pinging fs01-benjamin.ben.local [::1] with 32 bytes of data:
Reply from ::1: time<1ms

Ping statistics for ::1:
    Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
PS C:\Users\ben-adm\scripting>
```

6. AD Management

```
PS C:\Users\ben-adm\scripting> New-ADUser -Name "Joe"
PS C:\Users\ben-adm\scripting> New-ADGroup -Name "Nerds" -GroupCategory Security -GroupScope DomainLocal
PS C:\Users\ben-adm\scripting> Add-ADGroupMember -Identity Nerds -Members Joe
PS C:\Users\ben-adm\scripting> Get-ADGroupMember -Identity Nerds


distinguishedName : CN=Joe,CN=Users,DC=ben,DC=local
name              : Joe
objectClass       : user
objectGUID        : b5b439ea-3913-4a98-aaba-43377983a32d
SamAccountName    : Joe
SID               : S-1-5-21-3046433430-1214274579-1171965080-1112
```

7. Remote command on workstation