IT Scripting and Automation

Loops in PowerShell

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Using Do … While loop

```
$a = 1
DO
{
    write-host "Starting Loop $a"
    $a
    $a++
    write-host "Now `$a is $a"
} While ($a -le 5)
```

```
PS C:\Users\Administrator> $a = 1
DO
{
    write-host "Starting Loop $a"
    $a
    $a++
    write-host "Now `$a is $a"
} While ($a -le 5)


Starting Loop 1
1
Now $a is 2
Starting Loop 2
2
Now $a is 3
Starting Loop 3
3
Now $a is 4
Starting Loop 4
4
Now $a is 5
Starting Loop 5
5
Now $a is 6

PS C:\Users\Administrator>
```

Using Do … While loop

What is the output in this case?

```
$a = 10
DO
{
    write-host "Starting Loop $a"
    $a
    $a++
    write-host "Now `$a is $a"
} While ($a -le 5)
```

Using Do … While loop

What is the output in this case?

```
$a = 10
DO
{
    write-host "Starting Loop $a"
    $a
    $a++
    write-host "Now `$a is $a"
} While ($a -le 5)
```

```
PS C:\Users\Administrator> $a = 10
DO
{
    write-host "Starting Loop $a"
    $a
    $a++
    write-host "Now `$a is $a"
} While ($a -le 5)


Starting Loop 10
10
Now $a is 11

PS C:\Users\Administrator>
```

While loop

Example of While loop:

$i =0

While ($i -le 30)

{$i;

$i +=3}

```
PS C:\Users\Administrator> $i =0
While ($i -le 30)
{$i;
$i +=3}


0
3
6
9
12
15
18
21
24
27
30

PS C:\Users\Administrator>
```

Foreach

Example of Foreach loop:

```
$NumArray = (2,4,6,8,10)
Foreach ($Item in $NumArray)
{
  $Item * 2
}
```

```
PS C:\Users\Administrator> $NumArray = (2,4,6,8,10)
Foreach ($Item in $NumArray)
{$Item * 2}

4
8
12
16
20

PS C:\Users\Administrator>
```

More Examples

Example of a do-while loop:

Summary: This example starts notepad and then while notepad is running it will report that is found in the list of processes every second until, notepad is closed.

Try it:

Start-process notepad

$p = "notepad"

Do

{

   "$p found at $(get-date)"

   $proc = Get-Process

   start-sleep 1

}

While ($proc.name –contains $p)

Another Foreach loop

Another Example of a Foreach loop:

The script:

- **clears console screen, and**

- **lists contents of c:\ using a foreach loop.**

Clear-Host

Foreach ($file in Get-Childitem C:\)

{

    $file.name

}

```
PerfLogs
Program Files
Program Files (x86)
temp
Users
Windows
temp.ps1
PS C:\Users\Administrator>
```

What would the following code do?

What would the following code do?

```
Clear-Host
$Path = "C:\Windows\System32\*.dll"
Get-ChildItem $Path | Foreach-Object {
Write-Host $_.Name
}
```

What would the following code do?

What would the following code do?

```
Clear-Host
Foreach ($T In Get-Process Task*)
{$T.Name}
```

What would the following code do?

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```
$LogPath = "C:\users\administrator\application.txt"
$i = 0
$LogType = "Application"
$Logs = Get-Eventlog -Logname $LogType -newest 50
$Logs | ForEach-Object -begin {Get-Date} -process {
Out-File -filepath $LogPath -append -Inputobject $_.message; $i++
} -end {Get-Date}
Write-Host "$i $LogType logs written"
```