

```
Windows PowerShell
            170
                    2004
                                                18152
   180
                               7680
                                                        0 svchost
   5948
                               6532
                                                          System
SystemPropertiesAdvanced
             0
                     68
                    3076
             18
                                          0.03 18236
   271
                              18944
             77
18
   1525
                  179500
                             226096
                                           1.73
                                                 3756
                                                           SystemSettings
   370
                   40784
                              19928
                                           1.97
                                                12836
                                                           TaskbarX
    329
             46
                   10028
                              22080
                                           0.09
                                                 4340
                                                           taskhostw
   1003
             40
                   27924
                              71380
                                           0.80
                                                14372
                                                           TextInputHost
             11
12
37
17
35
18
37
                                                           User00BEBroker
   155
                    2300
                                          0.00
                                                10624
                              10008
                              11236
                                                          vgtray
Video.UI
    200
                    2148
                                           0.03
                                                14708
    553
                   20748
                               1868
                                           0.03
                                                18064
    223
                    2892
                              14488
                                           0.48
                                                  868
                                                           wallpaper32
    824
                   11220
                              53732
                                           1.56
                                                 6684
                                                           Widgets
    325
                    4480
                              22128
                                           0.34
                                                11344
                                                           WidgetService
    666
                   29156
                                           0.06 19212
                                                          WindowsTerminal
                              68964
    142
                    1472
                               7392
                                                  1056
                                                         0 wininit
             12
                                                  1236
                                                         1 winlogon
    273
                    2468
                              12788
    166
                    1580
                               8512
                                                 7212
                                                         0 wlanext
                                                17340
    185
                    4012
                              11308
                                                         0 WmiPrvSE
    296
                    1980
                               8972
                                                  3256
                                                         0 WUDFHost
    282
                    2216
                               9620
                                                  3468
                                                         0 WUDFHost
PS C:\Users\andre> pwd
Path
C:\Users\andre
PS C:\Users\andre>
PS C:\Users\andre> cd downloads
PS C:\Users\andre\downloads> git clone https://github.com/kevinwlu/iot.git
Cloning into 'iot'...
remote: Enumerating objects: 23294, done.
remote: Counting objects: 100% (4343/4343), done.
remote: Compressing objects: 100% (1347/1347), done.
remote: Total 23294 (delta 2468), reused 4167 (delta 2362), pack-reused 18951
Receiving objects: 100% (23294/23294), 28.89 MiB | 19.49 MiB/s, done.
```

Resolving deltas: 100% (15167/15167), done.

PS C:\Users\andre\downloads>

```
Resolving deltas: 100% (15167/15167), done.
PS C:\Users\andre\downloads> cd iot
PS C:\Users\andre\downloads\iot> ls
      Directory: C:\Users\andre\downloads\iot
Mode
                             LastWriteTime
                                                           Length Name
                      5/6/2024 12:21 AM
                                                                     apps
                      5/6/2024 12:21 AM
                                                                     cases
                      5/6/2024 12:21 AM
                                                                     economics
                      5/6/2024 12:21 AM
                                                                     health
                      5/6/2024 12:21 AM
                                                                     hype
                                                                     lesson1
                      5/6/2024 12:21 AM
                      5/6/2024 12:21 AM
                                                                     lesson10
                      5/6/2024 12:21 AM
                                                                     lesson2
                      5/6/2024 12:21 AM
                                                                     lesson3
                      5/6/2024 12:21 AM
                                                                     lesson4
                      5/6/2024 12:21 AM
                                                                     lesson5
                      5/6/2024 12:21 AM
                                                                     lesson6
                      5/6/2024 12:21 AM
                                                                     lesson7
                      5/6/2024 12:21 AM
                                                                     lesson8
                      5/6/2024 12:21 AM
                                                                     lesson9
                      5/6/2024 12:21 AM
                                                                     make
                      5/6/2024 12:21 AM
                                                                     projects
                      5/6/2024 12:21 AM
                                                                     special_problems
                      5/6/2024 12:21 AM
                                                                     standards
 Windows PowerShell
PS C:\Users\andre\downloads\iot> mkdir demo
    Directory: C:\Users\andre\downloads\iot
Mode
                    LastWriteTime
                                        Length Name
               5/6/2024 12:22 AM
PS C:\Users\andre\downloads\iot> cd demo
 nano : The term 'nano' is not recognized as the name of a cmdlet, function, script file, or operable program. Check
the spelling of the name, or if a path was included, verify that the path is correct and try again.
PS C:\Users\andre\downloads\iot\demo> nano file
 nano file
    + CategoryInfo : ObjectNotFound: (nano:String) [], CommandNotFoundException + FullyQualifiedErrorId : CommandNotFoundException
PS C:\Users\andre\downloads\iot\demo> cat file

Sind path 'C:\Users\andre\downloads\iot\demo\file' because it does not exist.
cat : Cannot find path 'C:\Users\andre\don
At line:1 char:1
F cat file
   + CategoryInfoundException
                          : ObjectNotFound: (C:\Users\andre\downloads\iot\demo\file:String) [Get-Content], ItemNotFo
```

```
Windows PowerShell
                                           × + ~
Get-Help: Get-Help could not find uname in a help file in this session. To download updated help topics type:
"Update-Help". To get help online, search for the help topic in the TechNet library at
s:/go.microsoft.com/fwlink/?LinkID=107116.
55 char:5

lp @PSBoundParameters | more +
PS C:\Users\andre\downloads\iot\demo> man uname
        : ResourceUnavailable: (:) [Get-Help], HelpNotFoundException
+ FullyQualifiedErrorId : HelpNotFound,Microsoft.PowerShell.Commands.GetHelpCommand
PS C:\Users\andre\downloads\iot\demo> uname -a
uname : The term 'uname' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ uname -a
+ ~~~~
       + CategoryInfo : ObjectNotFound: (uname:String) [], CommandNotFoundException + FullyQualifiedErrorId : CommandNotFoundException
PS C:\Users\andre\downloads\iot\demo> ifconfig
ifconfig: The term 'ifconfig' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again. At line:1 char:1 + ifconfig
       + CategoryInfo : ObjectNotFound: (ifconfig:String) [], CommandNotFoundException + FullyQualifiedErrorId : CommandNotFoundException
PS C:\Users\andre\downloads\iot\demo> ping localhost
Pinging ANDREW [::1] with 32 bytes of data:
Reply from ::1: time<lms
Reply from ::1: time<lms
Reply from ::1: time<lms
Reply from ::1: time<lms
Ping statistics for ::1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
PS C:\Users\andre\downloads\iot\demo> |
```

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Ping statistics for ::1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Opproximate round trip times in milli-seconds:
    Minimum = Oms, Maximum = Oms, Average = Oms
PS C:\Users\andre\downloads\iot\demo> netstat
Active Connections
 Proto Local Address
                                  Foreign Address
                                                          State
                                                          ESTABLISHED
 TCP
         127.0.0.1:49753
                                  ANDREW: 49767
 TCP
         127.0.0.1:49754
                                  ANDREW: 49766
                                                          ESTABLISHED
                                                          ESTABLISHED
 TCP
                                  ANDREW: 49754
         127.0.0.1:49766
 TCP
         127.0.0.1:49767
                                  ANDREW: 49753
                                                          ESTABLISHED
 TCP
                                  ANDREW: 50305
                                                          ESTABLISHED
         127.0.0.1:50304
 TCP
         127.0.0.1:50305
                                  ANDREW: 50304
                                                          ESTABLISHED
 TCP
         127.0.0.1:50306
                                  ANDREW: 50307
                                                          ESTABLISHED
  TCP
         127.0.0.1:50307
                                  ANDREW: 50306
                                                          ESTABLISHED
 TCP
         127.0.0.1:50337
                                  ANDREW: 50338
                                                          ESTABLISHED
  TCP
         127.0.0.1:50338
                                  ANDREW: 50337
                                                          ESTABLISHED
 TCP
         127.0.0.1:50339
                                  ANDREW: 50340
                                                          ESTABLISHED
                                  ANDREW: 50339
                                                          ESTABLISHED
 TCP
         127.0.0.1:50340
 TCP
         127.0.0.1:50341
                                  ANDREW: 50342
                                                          ESTABLISHED
                                  ANDREW: 50341
 TCP
         127.0.0.1:50342
                                                          ESTABLISHED
                                  ANDREW: 50344
 TCP
         127.0.0.1:50343
                                                          ESTABLISHED
 TCP
         127.0.0.1:50344
                                  ANDREW: 50343
                                                          ESTABLISHED
 TCP
         127.0.0.1:50345
                                  ANDREW: 50346
                                                          ESTABLISHED
 TCP
         127.0.0.1:50346
                                  ANDREW: 50345
                                                          ESTABLISHED
  TCP
         127.0.0.1:50347
                                  ANDREW: 50348
                                                          ESTABLISHED
 TCP
         127.0.0.1:50348
                                                          ESTABLISHED
                                  ANDREW: 50347
 TCP
         127.0.0.1:50349
                                  ANDREW: 50350
                                                          ESTABLISHED
         127.0.0.1:50350
                                  ANDREW: 50349
 TCP
                                                          ESTABLISHED
                                                          ESTABLISHED
 TCP
         127.0.0.1:50351
                                  ANDREW: 50352
  TCP
         127.0.0.1:50352
                                  ANDREW: 50351
                                                          ESTABLISHED
```

For this lab we had to run a series of command line prompts to become familiar with their outputs, the images above display their outputs.