4. Gyakorlat

1. Feladat:

```
PS C:\Users\tremb> $PSVersionTable

Name                           Value
----                           -----
PSVersion                      5.1.18362.1171
PSEdition                      Desktop
PSCompatibleVersions           {1.0, 2.0, 3.0, 4.0...}
BuildVersion                   10.0.18362.1171
CLRVersion                     4.0.30319.42000
WSManStackVersion              3.0
PSRemotingProtocolVersion      2.3
SerializationVersion           1.1.0.1
```
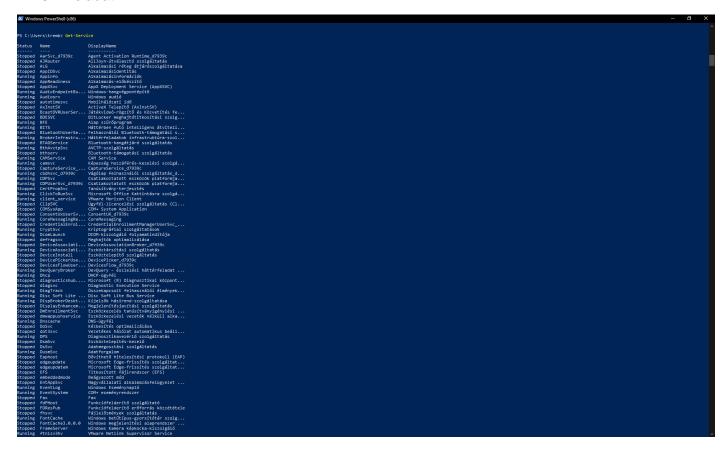
A PowerShell verzióját kérdezhetjük le a $PSVersionTable CMDlettel.

2. Feladat:

```
Windows PowerShell (x86)                                                                          —    □    ×

PS C:\Users\tremb> Get-Service | Get-Member

    TypeName: System.ServiceProcess.ServiceController

Name                    MemberType     Definition
----                    ----------     ----------
Name                    AliasProperty  Name = ServiceName
RequiredServices        AliasProperty  RequiredServices = ServicesDependedOn
Disposed                Event          System.EventHandler Disposed(System.Object, System.EventArgs)
Close                   Method         void Close()
Continue                Method         void Continue()
CreateObjRef            Method         System.Runtime.Remoting.ObjRef CreateObjRef(type requestedType)
Dispose                 Method         void Dispose(), void IDisposable.Dispose()
Equals                  Method         bool Equals(System.Object obj)
ExecuteCommand          Method         void ExecuteCommand(int command)
GetHashCode             Method         int GetHashCode()
GetLifetimeService      Method         System.Object GetLifetimeService()
GetType                 Method         type GetType()
InitializeLifetimeService Method       System.Object InitializeLifetimeService()
Pause                   Method         void Pause()
Refresh                 Method         void Refresh()
Start                   Method         void Start(), void Start(string[] args)
Stop                    Method         void Stop()
WaitForStatus           Method         void WaitForStatus(System.ServiceProcess.ServiceControllerStatus desiredStat...
CanPauseAndContinue     Property       bool CanPauseAndContinue {get;}
CanShutdown             Property       bool CanShutdown {get;}
CanStop                 Property       bool CanStop {get;}
Container               Property       System.ComponentModel.IContainer Container {get;}
DependentServices       Property       System.ServiceProcess.ServiceController[] DependentServices {get;}
DisplayName             Property       string DisplayName {get;set;}
MachineName             Property       string MachineName {get;set;}
ServiceHandle           Property       System.Runtime.InteropServices.SafeHandle ServiceHandle {get;}
ServiceName             Property       string ServiceName {get;set;}
ServicesDependedOn      Property       System.ServiceProcess.ServiceController[] ServicesDependedOn {get;}
ServiceType             Property       System.ServiceProcess.ServiceType ServiceType {get;}
Site                    Property       System.ComponentModel.ISite Site {get;set;}
StartType               Property       System.ServiceProcess.ServiceStartMode StartType {get;}
Status                  Property       System.ServiceProcess.ServiceControllerStatus Status {get;}
ToString                ScriptMethod   System.Object ToString();


PS C:\Users\tremb>
```
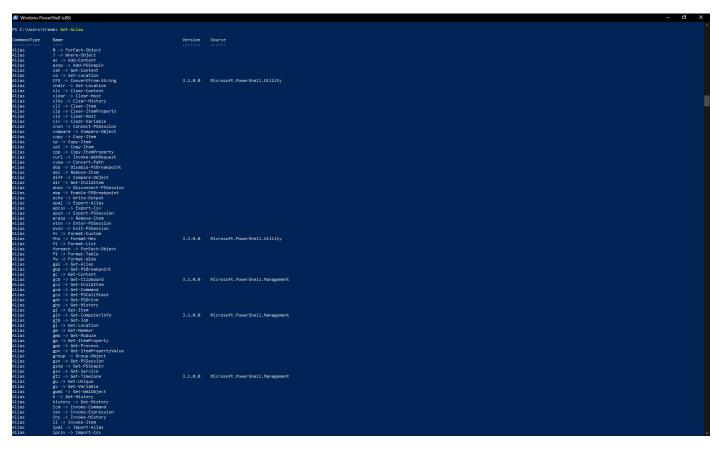
Get-Service | Get-Member CMDlettel megtudhatjuk, hogy milyen tagokat ismer a Pshell.

3. Feladat:

Szolgáltatások a PShellben.

4. Feladat:

C:\ meghajtómon lévő könyvtárak

5. Feladat:

Aliasok.

6. Feladat:

Jelenleg futó processzek.

```
PS C:\Users\tremb> gal processz

CommandType     Name                                              Version    Source
-----------     ----                                              -------    ------
Alias           processz -> Get-Process
```

7. Feladat:


```
PS C:\Users\tremb> gsv | fl name, status

Name    : AarSvc_d7939c
Status  : Stopped

Name    : AJRouter
Status  : Stopped

Name    : ALG
Status  : Stopped

Name    : AppIDSvc
Status  : Stopped

Name    : AppInfo
Status  : Running

Name    : AppReadiness
Status  : Stopped

Name    : AppXSvc
Status  : Stopped

Name    : AudioEndpointBuilder
Status  : Running

Name    : Audiosrv
Status  : Running

Name    : autotimesvc
Status  : Stopped

Name    : AxInstSV
Status  : Stopped

Name    : BcastDVRUserService_d7939c
Status  : Stopped

Name    : BDESVC
Status  : Stopped

Name    : BFE
Status  : Running

Name    : BITS
Status  : Running

Name    : BluetoothUserService_d7939c
Status  : Stopped

Name    : BrokerInfrastructure
Status  : Running

Name    : BTAGService
Status  : Stopped

Name    : BthAvctpSvc
Status  : Running

Name    : bthserv
Status  : Stopped

Name    : CAMService
Status  : Running

Name    : camsvc
Status  : Running

Name    : CaptureService_d7939c
Status  : Stopped

Name    : cbdhsvc_d7939c
Status  : Running

Name    : CDPSvc
Status  : Running

Name    : CDPUserSvc_d7939c
```

b)


```
PS C:\Users\tremb> Get-Service | ft name, status

Name                                              Status
----                                              ------
AarSvc_d7939c                                     Stopped
AJRouter                                          Stopped
ALG                                               Stopped
AppIDSvc                                          Stopped
AppInfo                                           Running
AppReadiness                                      Stopped
AppXSvc                                           Stopped
AudioEndpointBuilder                              Running
Audiosrv                                          Running
autotimesvc                                       Stopped
AxInstSV                                          Stopped
BcastDVRUserService_d7939c                        Stopped
BDESVC                                            Stopped
BFE                                               Running
BITS                                              Running
BluetoothUserService_d7939c                       Stopped
BrokerInfrastructure                              Running
BTAGService                                       Stopped
BthAvctpSvc                                       Running
bthserv                                           Stopped
CAMService                                        Running
camsvc                                            Running
CaptureService_d7939c                             Stopped
cbdhsvc_d7939c                                    Running
CDPSvc                                            Running
CDPUserSvc_d7939c                                 Running
CertPropSvc                                       Stopped
ClickToRunSvc                                     Running
Client_service                                    Running
ClipSVC                                           Running
COMSysApp                                         Stopped
ConsentUxUserSvc_d7939c                           Stopped
CoreMessagingRegistrar                            Running
CredentialEnrollmentManagerUserSvc_d7939c         Stopped
CryptSvc                                          Running
DcomLaunch                                        Running
defragsvc                                         Stopped
DeviceAssociationBrokerSvc_d7939c                 Stopped
DeviceAssociationService                          Running
DeviceInstall                                     Stopped
DevicePickerUserSvc_d7939c                        Stopped
DevicesFlowUserSvc_d7939c                         Stopped
DevQueryBroker                                    Running
Dhcp                                              Running
diagnosticshub.standardcollector.service          Stopped
diagsvc                                           Stopped
DiagTrack                                         Running
Disc Soft Lite Bus Service                        Running
DispBrokerDesktopSvc                              Running
DisplayEnhancementService                         Stopped
DmEnrollmentSvc                                   Stopped
dmwappushservice                                  Stopped
Dnscache                                          Running
DoSvc                                             Stopped
dot3svc                                           Stopped
DPS                                               Running
DsmSvc                                            Stopped
DsSvc                                             Stopped
DusmSvc                                           Running
Eaphost                                           Stopped
edgeupdate                                        Stopped
edgeupdatem                                       Stopped
EFS                                               Stopped
embeddedmode                                      Stopped
EntAppSvc                                         Stopped
EventLog                                          Running
EventSystem                                       Running
Fax                                               Stopped
fdPHost                                           Stopped
FDResPub                                          Stopped
fhsvc                                             Stopped
FontCache                                         Running
FontCache3.0.0.0                                  Stopped
FrameServer                                       Stopped
ftnlsv3hv                                         Running
```

c)

-AutoSize

8. Feladat:

b)


```
Windows PowerShell (x86)
PS C:\Users\tremb> processz | Sort-Object name -Descending

Handles  NPM(K)    PM(K)     WS(K)   CPU(s)     Id  SI ProcessName
-------  ------    -----     -----   ------     --  -- -----------
    642      39    51568     72304     1,61   1680   2 YourPhoneServer
    757      49    75936     13196     0,88  21952   2 YourPhone
   1633      74   350224    212888    48,22  18032   2 WINWORD
   1018      74   104488      1128     1,06  11920   2 WinStore.App
    275      12     2696     10272           15600   2 winlogon
    164      11     1688      7580             968   0 wininit
     93       8     1408      5564            3644   0 wallpaperservice32_c
    463      38    52244     56868     6,94  15908   2 wallpaper32
    246      12     3572      8496            3776   0 vmwsprrdpwks
    217      13     2828     11060            4184   0 vmware-usbarbitrator64
    404      22    68716    108336     2,66  14464   2 VirtualBox
    775      16     6372     20640     0,19   1068   2 VBoxSVC
    190      10     2136      9648            1676   0 VBoxSDS
    938     104    59864     93716     2,45   1692   2 utorrentie
    288      16     2788     13124     0,08   7428   2 utorrentie
    644      49    17716     36128     6,69   6432   2 uTorrent
    411      95    17468     20964            3996   0 TeamViewer_Service
    333      27    28436     48324     0,22   6284   2 Teams
   1093      66   155768    153996    11,91  10420   2 Teams
   1080      53   166440    110512     1,50    852   2 Teams
    479     118   232468    249620    17,38   2384   2 Teams
    447      21    15796     28844     1,05  11256   2 Teams
    315      23    23840     31096     0,09  15120   2 Teams
    308      60    74720    100552     2,17  15236   2 Teams
    656      35   131320     76580     1,78  12700   2 Teams
    332      20    11576     21084     0,28  13300   2 Teams
    282      41     9364     18988     0,41  18296   2 taskhostw
   5730       0      196       140                4   0 System
    262       9     2156      8356            2444   0 svchost
    178      12     1920      8520            2360   0 svchost
    525      29    10460     21380            2488   0 svchost
    164      10     1956      8888            2452   0 svchost
    545      12     2848      8992            2212   0 svchost
    294       7     1320      5976            2144   0 svchost
    226      13     3812     13460            2136   0 svchost
    169       9     1992      7876            2168   0 svchost
    223      11     2552     13536            2152   0 svchost
    520      15     4740     15160            2924   0 svchost
    124      12     1752      6616            2880   0 svchost
    410      31    10704     19800            3232   0 svchost
    244      14     2804     14340            3068   0 svchost
    176       9     1960      7708            2784   0 svchost
    349      16     2452      9472            2536   0 svchost
    200      10     7044     15500            2524   0 svchost
    272      11     3084     10724            2764   0 svchost
    123       8     1564      7420            2668   0 svchost
    329      10     2884      9052            1316   0 svchost
   1390      19     9612     17932            1268   0 svchost
    151       9     2088     12344            1524   0 svchost
    222      12     2344     10592            1516   0 svchost
    291      13     3600      9000            1260   0 svchost
    430      18     9680     25400     2,19    832   2 svchost
    391      18     6208     16072             120   0 svchost
   1188      23    11068     28312            1084   0 svchost
     87       5      968      3992            1048   0 svchost
    232      10     2332      8000            1892   0 svchost
    149      10     1740      8448            1844   0 svchost
    382      16     5000     13020            2024   0 svchost
    173       7     1652      6288            1900   0 svchost
    548      23     9104     37240     2,44   1832   2 svchost
    141      12     1636      6284            1660   0 svchost
    428      14    15908     18884            1612   0 svchost
    148      30     5752     10072            1796   0 svchost
    220      12     2396     11408            1780   0 svchost
    141       8     1592      7228     0,02  11320   2 svchost
    250      14     2880     12616     0,13  11160   2 svchost
    649      74    23744     37708           14800   0 svchost
    218      12     4672     18212           14736   0 svchost
    116       7     1284      5616           10188   0 svchost
    399      20     5336     19740            7276   0 svchost
    177       9     1808      8008            7044   0 svchost
    169       8     1688      6928            9692   0 svchost
    171      10     2112      9676            7488   0 svchost
    303      13     3180     11464           20492   0 svchost
    227      11     3924      8668           19852   0 svchost
    148       9     1664      7820           21508   0 svchost
    231      16     2040      7572           21204   0 svchost
```

9. Feladat:


```
PS C:\Users\tremb> gsv | Where-Object { $_.name -eq "w32time" }

Status    Name               DisplayName
------    ----               -----------
Stopped   W32Time            Windows Time
```

10. Feladat:


```
PS C:\Users\tremb> gsv | Where-Object { $_.name -like "wi*" }

Status    Name               DisplayName
------    ----               -----------
Stopped   WiaRpc             Állókép-beviteli események
Running   WinDefend          Windows Defender víruskereső szolgá...
Running   WinHttpAutoProx... WinHTTP automatikus webproxy-kereső...
Running   Winmgmt            Windows Management Instrumentation
Stopped   WinRM              Rendszerfelügyeleti webszolgáltatások
Stopped   wisvc              Windows Insider szolgáltatás
```

Megj.: Átírtam a processz aliast proce-re, a gyorsabb gépelés érdekébe.

11. Feladat:

```
PS C:\Users\tremb> proce | Measure-Object


Count    : 219
Average  :
Sum      :
Maximum  :
Minimum  :
Property :
```

12. Feladat:

```
PS C:\Users\tremb> proce | Measure-Object -Property id -Maximum -Minimum -Average -Sum


Count    : 218
Average  : 8880,18348623853
Sum      : 1935880
Maximum  : 22180
Minimum  : 0
Property : Id
```

13. Feladat:

```
PS C:\Users\tremb> (Get-Service).count
267
```

b)

```
PS C:\Users\tremb>
PS C:\Users\tremb> $x = (gsv)
PS C:\Users\tremb> $x.count
267
```

14. Feladat:

```
PS C:\Users\tremb> $x = 5
PS C:\Users\tremb> $x | Get-Member


   TypeName: System.Int32

Name        MemberType Definition
----        ---------- ----------
CompareTo   Method     int CompareTo(System.Object value), int CompareTo(int value), int IComparable.CompareTo(Syste...
Equals      Method     bool Equals(System.Object obj), bool Equals(int obj), bool IEquatable[int].Equals(int other)
GetHashCode Method     int GetHashCode()
GetType     Method     type GetType()
GetTypeCode Method     System.TypeCode GetTypeCode(), System.TypeCode IConvertible.GetTypeCode()
ToBoolean   Method     bool IConvertible.ToBoolean(System.IFormatProvider provider)
ToByte      Method     byte IConvertible.ToByte(System.IFormatProvider provider)
ToChar      Method     char IConvertible.ToChar(System.IFormatProvider provider)
ToDateTime  Method     datetime IConvertible.ToDateTime(System.IFormatProvider provider)
ToDecimal   Method     decimal IConvertible.ToDecimal(System.IFormatProvider provider)
ToDouble    Method     double IConvertible.ToDouble(System.IFormatProvider provider)
ToInt16     Method     int16 IConvertible.ToInt16(System.IFormatProvider provider)
ToInt32     Method     int IConvertible.ToInt32(System.IFormatProvider provider)
ToInt64     Method     long IConvertible.ToInt64(System.IFormatProvider provider)
ToSByte     Method     sbyte IConvertible.ToSByte(System.IFormatProvider provider)
ToSingle    Method     float IConvertible.ToSingle(System.IFormatProvider provider)
ToString    Method     string ToString(), string ToString(string format), string ToString(System.IFormatProvider pro...
ToType      Method     System.Object IConvertible.ToType(type conversionType, System.IFormatProvider provider)
ToUInt16    Method     uint16 IConvertible.ToUInt16(System.IFormatProvider provider)
ToUInt32    Method     uint32 IConvertible.ToUInt32(System.IFormatProvider provider)
ToUInt64    Method     uint64 IConvertible.ToUInt64(System.IFormatProvider provider)
```

Tömbök:

```
PS C:\Users\tremb> $tomb= 1...10
PS C:\Users\tremb> $tomb= proce
PS C:\Users\tremb> $tomb= 1...10
PS C:\Users\tremb> $tomb += 52
```

15. Feladat:

```
PS C:\Users\tremb> $szoveg = "Miskolc"
PS C:\Users\tremb> "$szoveg elek"
Miskolc elek
PS C:\Users\tremb> "$szoveg-on elek"
Miskolc-on elek
PS C:\Users\tremb> '$szoveg-on elek'
$szoveg-on elek
PS C:\Users\tremb>
```
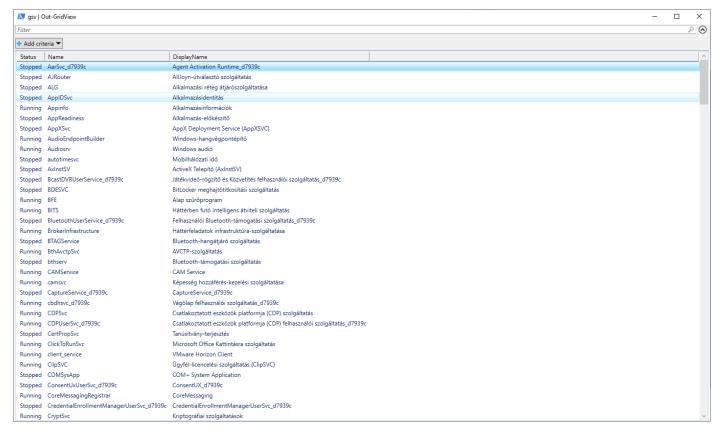
16. Feladat:

```
PS C:\Users\tremb> $szoveg.Length
7
PS C:\Users\tremb> $szoveg.ToUpper()
MISKOLC
PS C:\Users\tremb> $szoveg.Replace("kolc", "ka")
Miska
PS C:\Users\tremb> $szoveg.Split("s")
Mi
kolc
PS C:\Users\tremb>
```

17. Feladat:

18. Feladat:


```
PS C:\Users\tremb> $n= "D:\B58TC3.txt"
PS C:\Users\tremb> $B58TC3 = Get-Content $n
PS C:\Users\tremb> $B58TC3
PS C:\Users\tremb> $B58TC3 = Get-Content $n
PS C:\Users\tremb> $B58TC3
NK: B58TC3
PS C:\Users\tremb> $B58TC3.Count
1
PS C:\Users\tremb> Get-Item $n


    Directory: D:\


Mode                LastWriteTime       Length Name
----                -------------       ------ ----
-a----        2021. 03. 04.     9:51        10 B58TC3.txt


PS C:\Users\tremb>
```

Megj.: A D:\ meghajtóra hoztam létre a .txt file-t, mivel mindent azon tárolok, a C:\-n csak a Win és a driverek vannak.