

Operációs rendszerek Bsc

4. gyakorlat (B)

2021. 03. 03.

Készítette:

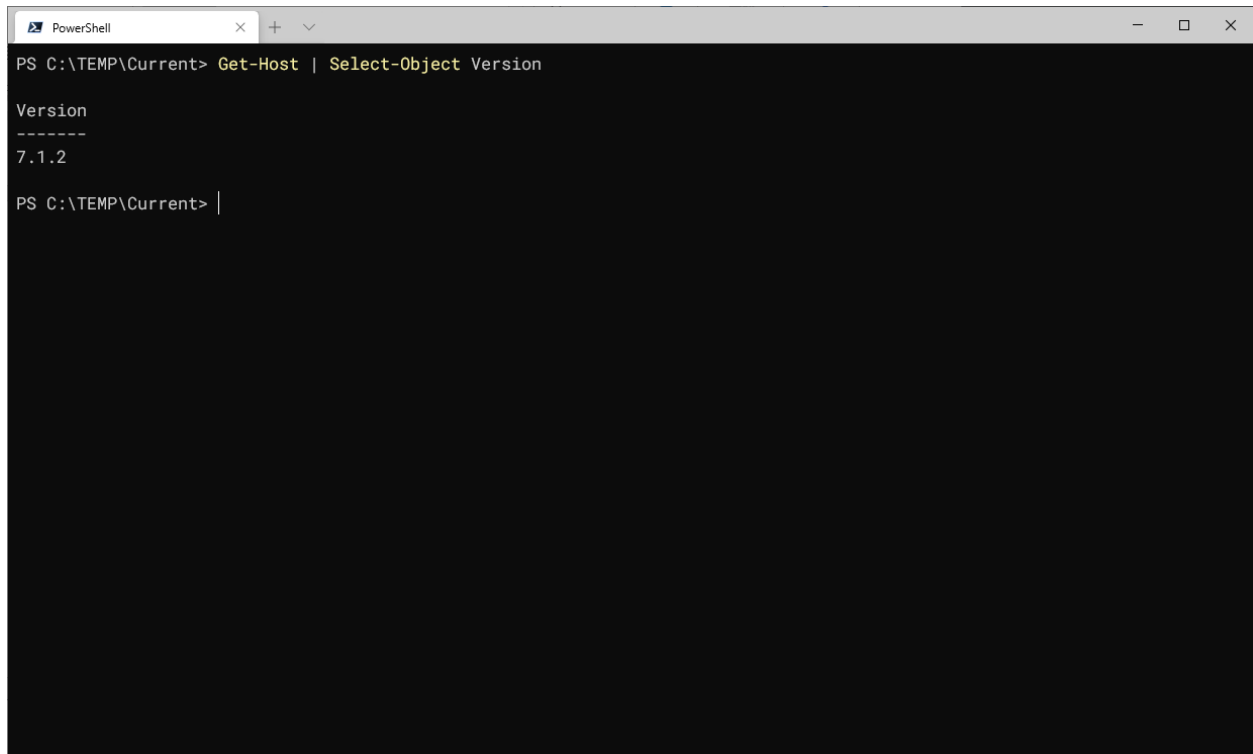
Molnár Balázs Bsc

programtervező informatikus

KFIXBJ

Miskolc, 2021

1. feladat - Kérdezze le a PowerShell verziót!

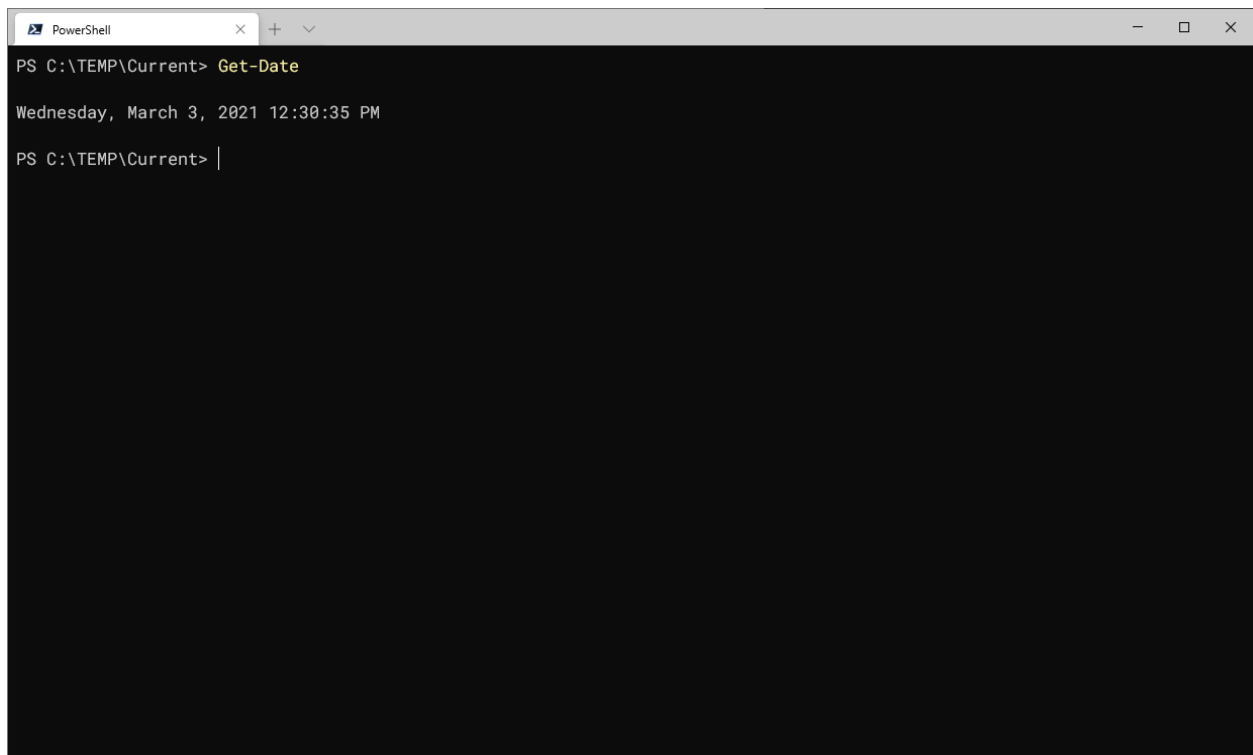


```
PS C:\TEMP\Current> Get-Host | Select-Object Version

Version
-----
7.1.2

PS C:\TEMP\Current> |
```

2. feladat - Kérdezze le a mai dátumot!



```
PS C:\TEMP\Current> Get-Date

Wednesday, March 3, 2021 12:30:35 PM

PS C:\TEMP\Current> |
```

3. feladat - Kérdezze le a szolgáltatásokat!

```
PowerShell
PS C:\TEMP\Current> Get-Service

Status Name DisplayName
-----
Stopped AarSvc_c1b1c Agent Activation Runtime_c1b1c
Running AdobeARMSvc Adobe Acrobat Update Service
Stopped AJRouter AllJoyn Router Service
Stopped ALG Application Layer Gateway Service
Running AnyDesk AnyDesk Service
Stopped AppIDSvc Application Identity
Running Appinfo Application Information
Running Apple Mobile Devi... Apple Mobile Device Service
Stopped AppMgmt Application Management
Stopped AppReadiness App Readiness
Stopped AppVClient Microsoft App-V Client
Running AppXSvc AppX Deployment Service (AppXSVC)
Running asComSvc ASUS Com Service
Stopped AssignedAccessMan... AssignedAccessManager Service
Running AsSysCtrlService ASUS System Control Service
Running AsusUpdateCheck AsusUpdateCheck
Running AudioEndpointBuil... Windows Audio Endpoint Builder
Running Audiosrv Windows Audio
Stopped autotimesvc Cellular Time
Stopped AxInstSV ActiveX Installer (AxInstSV)
Stopped BcastDVRUserServi... GameDVR and Broadcast User Service_c1...
Stopped BDESVC BitLocker Drive Encryption Service
Running BFE Base Filtering Engine
Running BITS Background Intelligent Transfer Servi...
Stopped BluetoothUserServ... Bluetooth User Support Service_c1b1c
```

4. feladat - Kérdezze le a C:\ meghajtón lévő könyvtárakat ill. fájlokat!

```
PowerShell
PS C:\TEMP\Current> cd /
PS C:\> dir

Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----          11/22/2020   1:16 PM             AMD
d-----          12/24/2020   9:24 PM          Huion Tablet
d-----          12/18/2020   2:55 PM          java-dev
d-----           2/28/2021   4:13 PM             KEEP
d-----          11/22/2020   1:10 PM            NVIDIA
d-----          12/7/2019  10:14 AM           PerfLogs
d-r--           2/24/2021   7:41 PM        Program Files
d-r--           1/31/2021   8:35 PM    Program Files (x86)
d-----           1/25/2021   1:43 PM             TEMP
d-----           2/13/2021   3:23 PM             tools
d-----           1/25/2021   9:47 AM          totalcmd
d-r--           11/10/2020   7:31 AM             Users
d-----           2/3/2021   7:37 PM            Windows
d-----          11/10/2020  11:44 AM             Xerox
-a---           11/9/2020   5:43 PM          206 audio.log
-a---           3/3/2021  11:58 AM       12544 CosairDram.txt

PS C:\> |
```

5. feladat - Kérdezze a parancsok rövidített neveit (alias)!

```
PowerShell
PS C:\> alias cd

CommandType      Name
-----
Alias            cd -> Set-Location

PS C:\> alias dir

CommandType      Name
-----
Alias            dir -> Get-ChildItem

PS C:\> alias

CommandType      Name
-----
Alias            ? -> Where-Object
Alias            % -> ForEach-Object
Alias            ac -> Add-Content
Alias            cat -> Get-Content
Alias            cd -> Set-Location
Alias            chdir -> Set-Location
Alias            clc -> Clear-Content
Alias            clear -> Clear-Host
Alias            clhy -> Clear-History
Alias            cli -> Clear-Item
Alias            clp -> Clear-ItemProperty
Alias            cls -> Clear-Host
Alias            clv -> Clear-Variable
Alias            cnsn -> Connect-PSSession
```

6. feladat - Készítsen egy „processz” nevű alias-t, majd futtassa és kérdezze le!

```
PowerShell
PS C:\> New-Alias -Name "processz" Get-Process
PS C:\> processz

NPM(K)  PM(M)  WS(M)  CPU(s)  Id  SI ProcessName
-----
20      2.97   11.08   0.05    12812  1 adb
14      1.79   11.35   0.05    13460  1 AiChargerAP
25      18.17  29.12   0.56    4860   0 AnyDesk
25      4.23   14.79   0.00    4712   0 AppleMobileDeviceService
17      4.95   25.83   0.36    6200  1 ApplicationFrameHost
8       1.52    6.04   0.00    4924   0 armsvc
8       1.20    6.05   0.00    4868   0 AsSysCtrlService
11      2.02    9.61   0.00    4632   0 AsusUpdateCheck
12      5.95   13.28   0.00    4944   0 atkexComSvc
23      8.30   14.64   32.66   3308   0 audiodg
12      2.01   10.36   0.05    9772  1 CDASrv
25      18.62  39.16   1.66    6120  1 chrome
19      47.91  95.68   6.58    6368  1 chrome
15      16.29  38.80   0.16    8180  1 chrome
31      170.80 111.63  7.20    8292  1 chrome
10      1.95    8.44   0.02    9184  1 chrome
22      47.32  83.89   1.02   11128  1 chrome
14      11.25  22.54   0.05   12140  1 chrome
15      20.70  36.74   0.73   12396  1 chrome
13      7.47   16.99   0.08   14356  1 chrome
52      88.91  166.84  12.12  14392  1 chrome
49      36.66  11.14   0.55   11328  1 ColorPickerUI
7       6.20    3.02   0.03    8904  1 conhost
25      2.13    4.79   0.00    796   0 csrss
25      2.42    5.15   0.00    896   1 csrss
```

```
PowerShell
16 3.83 15.92 0.33 10516 1 TabTip
37 8.48 17.93 0.22 8304 1 taskhostw
22 22.75 73.97 0.03 1164 1 Teams
20 11.46 59.45 0.02 11488 1 Teams
69 162.38 220.13 14.48 13368 1 Teams
38 195.80 170.01 97.86 13604 1 Teams
24 16.57 43.38 1.52 13644 1 Teams
94 172.98 214.36 66.19 13720 1 Teams
27 35.01 70.57 0.31 13804 1 Teams
162 351.13 378.63 79.06 14120 1 Teams
1422 340.59 334.20 108.72 14544 1 Teams
26 59.30 52.91 0.55 11252 1 TextInputHost
10 1.87 8.89 0.06 5776 1 UserOOBEBroker
40 67.22 15.64 0.30 10624 1 Video.UI
10 5.70 15.45 0.00 5368 0 vmcompute
4460 610.05 0.02 0.00 7716 0 vmmem
40 79.70 81.13 5.17 14408 1 WindowsTerminal
11 1.39 6.43 0.00 888 0 wininit
14 3.00 12.74 0.00 740 1 winlogon
74 276.39 208.56 23.36 956 1 WINWORD
16 2.40 10.32 0.00 7896 0 WUDFHost
42 70.78 23.86 0.23 10252 1 YourPhone

PS C:\> alias processz

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

PS C:\> |
```

7. feladat - Listázza ki az adott meghajtón lévő szolgáltatásokat - formázott lista/tábla formában!

```
PowerShell
PS C:\> Get-Service | Format-List

Name           : AarSvc_c1b1c
DisplayName     : Agent Activation Runtime_c1b1c
Status         : Stopped
DependentServices : {}
ServicesDependedOn : {}
CanPauseAndContinue : False
CanShutdown    : False
CanStop        : False
ServiceType    : 224

Name           : AdobeARMservice
DisplayName     : Adobe Acrobat Update Service
Status         : Running
DependentServices : {}
ServicesDependedOn : {}
CanPauseAndContinue : False
CanShutdown    : False
CanStop        : True
ServiceType    : Win32OwnProcess

Name           : AJRouter
DisplayName     : AllJoyn Router Service
Status         : Stopped
DependentServices : {}
ServicesDependedOn : {}
CanPauseAndContinue : False
CanShutdown    : False
```

```
PowerShell
PS C:\> Get-Service | Format-Table

Status Name DisplayName
-----
Stopped AarSvc_c1b1c Agent Activation Runtime_c1b1c
Running AdobeARMService Adobe Acrobat Update Service
Stopped AJRouter AllJoyn Router Service
Stopped ALG Application Layer Gateway Service
Running AnyDesk AnyDesk Service
Stopped AppIDSvc Application Identity
Running Appinfo Application Information
Running Apple Mobile Devi... Apple Mobile Device Service
Stopped AppMgmt Application Management
Stopped AppReadiness App Readiness
Stopped AppVClient Microsoft App-V Client
Running AppXSvc AppX Deployment Service (AppXSVC)
Running asComSvc ASUS Com Service
Stopped AssignedAccessMan... AssignedAccessManager Service
Running AsSysCtrlService ASUS System Control Service
Running AsusUpdateCheck AsusUpdateCheck
Running AudioEndpointBuil... Windows Audio Endpoint Builder
Running Audiosrv Windows Audio
Stopped autotimesvc Cellular Time
Stopped AxInstSV ActiveX Installer (AxInstSV)
Stopped BcastDVRUserServi... GameDVR and Broadcast User Service_c1...
Stopped BDESVC BitLocker Drive Encryption Service
Running BFE Base Filtering Engine
Stopped BITS Background Intelligent Transfer Servi...
Stopped BluetoothUserServ... Bluetooth User Support Service_c1b1c
Running Bonjour Service Bonjour Service
```

8. feladat - Rendezze sorba név szerint (növekvő/csökkenő) az objektumokat!

```
PowerShell
PS C:\> Get-Service | Sort-Object -Property Name

Status Name DisplayName
-----
Stopped AarSvc_c1b1c Agent Activation Runtime_c1b1c
Running AdobeARMService Adobe Acrobat Update Service
Stopped AJRouter AllJoyn Router Service
Stopped ALG Application Layer Gateway Service
Running AnyDesk AnyDesk Service
Stopped AppIDSvc Application Identity
Running Appinfo Application Information
Running Apple Mobile Devi... Apple Mobile Device Service
Stopped AppMgmt Application Management
Stopped AppReadiness App Readiness
Stopped AppVClient Microsoft App-V Client
Running AppXSvc AppX Deployment Service (AppXSVC)
Running asComSvc ASUS Com Service
Stopped AssignedAccessMan... AssignedAccessManager Service
Running AsSysCtrlService ASUS System Control Service
Running AsusUpdateCheck AsusUpdateCheck
Running AudioEndpointBuil... Windows Audio Endpoint Builder
Running Audiosrv Windows Audio
Stopped autotimesvc Cellular Time
Stopped AxInstSV ActiveX Installer (AxInstSV)
Stopped BcastDVRUserServi... GameDVR and Broadcast User Service_c1...
Stopped BDESVC BitLocker Drive Encryption Service
Running BFE Base Filtering Engine
Stopped BITS Background Intelligent Transfer Servi...
Stopped BluetoothUserServ... Bluetooth User Support Service_c1b1c
Running Bonjour Service Bonjour Service
```

```
PowerShell
PS C:\> Get-Service | Sort-Object -Property Name -Descending

Status Name DisplayName
-----
Stopped XboxNetApiSvc Xbox Live Networking Service
Stopped XboxGipSvc Xbox Accessory Management Service
Stopped XblGameSave Xbox Live Game Save
Stopped XblAuthManager Xbox Live Auth Manager
Stopped WwanSvc WWAN AutoConfig
Stopped wuauserv Windows Update
Running WSearch Windows Search
Running wscsvc Security Center
Running WpnUserService_c1... Windows Push Notifications User Servi...
Running WpnService Windows Push Notifications System Ser...
Stopped WPDBusEnum Portable Device Enumerator Service
Stopped WpcMonSvc Parental Controls
Stopped workfolderssvc Work Folders
Stopped WMPNetworkSvc Windows Media Player Network Sharing ...
Stopped wmiApSrv WMI Performance Adapter
Stopped WManSvc Windows Management Service
Stopped wlpasvc Local Profile Assistant Service
Running wlidsvc Microsoft Account Sign-in Assistant
Running WLANSvc WLAN AutoConfig
Stopped wisvc Windows Insider Service
Stopped WinRM Windows Remote Management (WS-Managem...
Running Winmgmt Windows Management Instrumentation
Running WinHttpAutoProxyS... WinHTTP Web Proxy Auto-Discovery Serv...
Running WinDefend Microsoft Defender Antivirus Service
Stopped WiaRpc Still Image Acquisition Events
Stopped WFDSConMgrSvc Wi-Fi Direct Services Connection Mana...
```

9. feladat - Kérdezze le azokat a neveket melynek első két betűje wi!

```
PowerShell
PS C:\> Get-Service | Where-Object -Property Name -like wi*

Status Name DisplayName
-----
Stopped WiaRpc Still Image Acquisition Events
Running WinDefend Microsoft Defender Antivirus Service
Running WinHttpAutoProxyS... WinHTTP Web Proxy Auto-Discovery Serv...
Running Winmgmt Windows Management Instrumentation
Stopped WinRM Windows Remote Management (WS-Managem...
Stopped wisvc Windows Insider Service

PS C:\> |
```

10. feladat - Csoportosítsa állapot szerint az objektumokat!

```
PowerShell
PS C:\> Get-Service | Group-Object -Property Status

Count Name Group
-----
163 Stopped {AarSvc_c1b1c, AJRouter, ALG, AppIDSvc...}
117 Running {AdobeARMService, AnyDesk, Appinfo, Apple Mobile Device Service...}

PS C:\> |
```

11. feladat - Számolja meg az objektumokat!

```
PowerShell
PS C:\> Get-Service | Measure-Object

Count           : 280
Average         :
Sum             :
Maximum         :
Minimum         :
StandardDeviation :
Property        :

PS C:\> |
```


12. feladat - Számolja meg az objektumokat: max, min, avg, sum szerint!

```
PowerShell
Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----          11/22/2020   1:16 PM             AMD
d-----          12/24/2020   9:24 PM        Huion Tablet
d-----          12/18/2020   2:55 PM        java-dev
d-----          2/28/2021   4:13 PM            KEEP
d-----          11/22/2020   1:10 PM          NVIDIA
d-----          12/7/2019  10:14 AM        PerfLogs
d-r--          2/24/2021   7:41 PM      Program Files
d-r--          1/31/2021   8:35 PM  Program Files (x86)
d-----          1/25/2021   1:43 PM            TEMP
d-----          2/13/2021   3:23 PM          tools
d-----          1/25/2021   9:47 AM        totalcmd
d-r--          11/10/2020   7:31 AM          Users
d-----          2/3/2021   7:37 PM        Windows
d-----          11/10/2020  11:44 AM          Xerox
-a---          11/9/2020   5:43 PM          206 audio.log
-a---          3/3/2021  11:58 AM      12544 CosairDram.txt

PS C:\> Get-ChildItem | Measure-Object -Property Length -Minimum -Maximum -Average -Sum

Count                : 2
Average              : 6375
Sum                  : 12750
Maximum              : 12544
Minimum              : 206
StandardDeviation    :
Property             : Length
```

13. feladat - Számolja meg az objektumokat!

```
PowerShell
Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----          11/22/2020   1:16 PM             AMD
d-----          12/24/2020   9:24 PM        Huion Tablet
d-----          12/18/2020   2:55 PM        java-dev
d-----          2/28/2021   4:13 PM            KEEP
d-----          11/22/2020   1:10 PM          NVIDIA
d-----          12/7/2019  10:14 AM        PerfLogs
d-r--          2/24/2021   7:41 PM      Program Files
d-r--          1/31/2021   8:35 PM  Program Files (x86)
d-----          1/25/2021   1:43 PM            TEMP
d-----          2/13/2021   3:23 PM          tools
d-----          1/25/2021   9:47 AM        totalcmd
d-r--          11/10/2020   7:31 AM          Users
d-----          2/3/2021   7:37 PM        Windows
d-----          11/10/2020  11:44 AM          Xerox
-a---          11/9/2020   5:43 PM          206 audio.log
-a---          3/3/2021  11:58 AM      12544 CosairDram.txt

PS C:\> Get-ChildItem | Measure-Object

Count                : 16
Average              :
Sum                  :
Maximum              :
Minimum              :
StandardDeviation    :
Property             :
```

14. feladat - Hozzon létre egy szoveg nevű változót, melynek értéke: Miskolc!

```
PowerShell
PS C:\> $szoveg="Miskolc"
PS C:\> $szoveg
Miskolc
PS C:\> |
```

15. feladat - Végezze el a következő műveleteket: length, ToUpper, Replace, Contains, Split; a \$szoveg változó értékeivel!

```
PowerShell
PS C:\> $szoveg.length
7
PS C:\> $szoveg.ToUpper()
MISKOLC
PS C:\> $szoveg.Replace("s", "t")
Mitkolc
PS C:\> $szoveg.Contains("Mis")
True
PS C:\> $szoveg.Split("k")
Mis
olc
PS C:\> |
```

16. feladat – Fájlkezelés (txt file)

Készítsen a C:\ meghajtóra egy neptunkod.txt fájlt, melynek tartalma a teljes neve.

Végezze el a következő feladatokat!

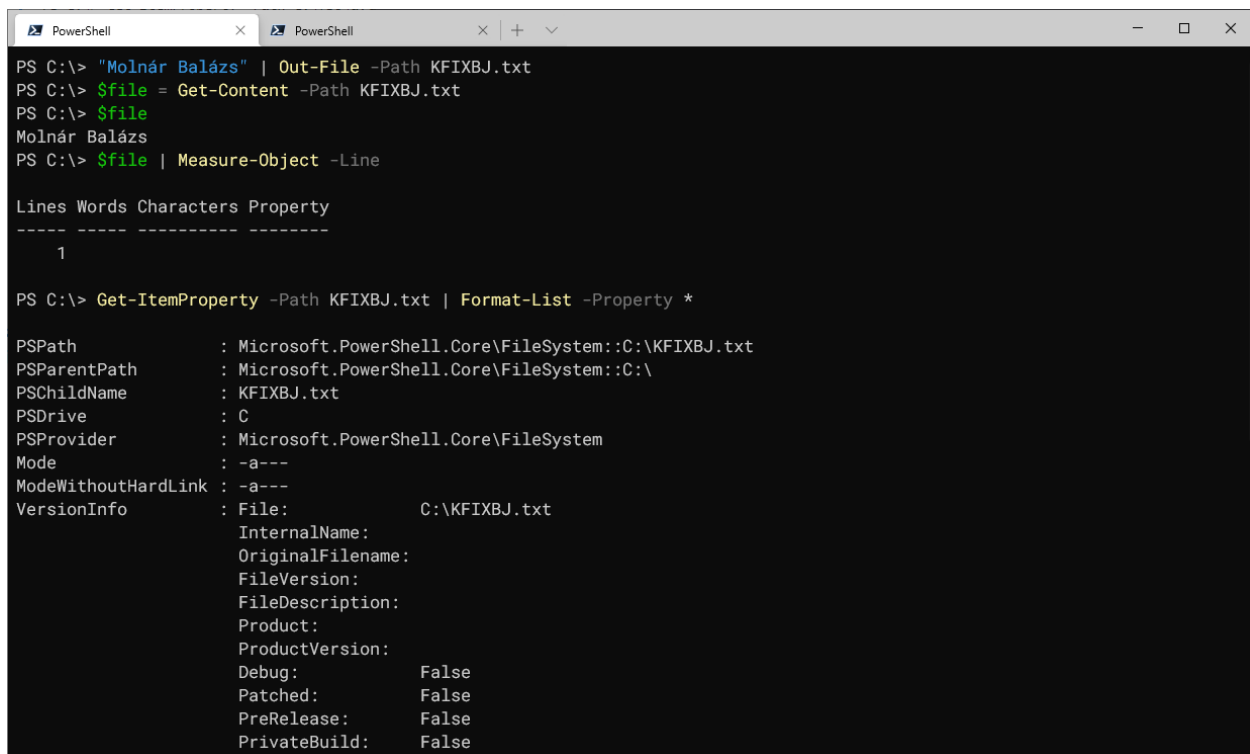
a) Definiálás:

b) Beolvasás:

c) Tartalom megjelenítés:

d) Sorok száma:

e) Fájl adatok:



```
PS C:\> "Molnár Balázs" | Out-File -Path KFIXBJ.txt
PS C:\> $file = Get-Content -Path KFIXBJ.txt
PS C:\> $file
Molnár Balázs
PS C:\> $file | Measure-Object -Line

Lines Words Characters Property
-----
1

PS C:\> Get-ItemProperty -Path KFIXBJ.txt | Format-List -Property *
```

PSPath : Microsoft.PowerShell.Core\FileSystem::C:\KFIXBJ.txt
PSParentPath : Microsoft.PowerShell.Core\FileSystem::C:\
PSChildName : KFIXBJ.txt
PSDrive : C
PSProvider : Microsoft.PowerShell.Core\FileSystem
Mode : -a---
ModeWithoutHardLink : -a---
VersionInfo : File: C:\KFIXBJ.txt
InternalName:
OriginalFilename:
FileVersion:
FileDescription:
Product:
ProductVersion:
Debug: False
Patched: False
PreRelease: False
PrivateBuild: False

```
PowerShell PowerShell x + v - □ x

Product:
ProductVersion:
Debug: False
Patched: False
PreRelease: False
PrivateBuild: False
SpecialBuild: False
Language:

BaseName : KFIXBJ
Target :
LinkType :
Length : 17
DirectoryName : C:\
Directory : C:\
IsReadOnly : False
FullName : C:\KFIXBJ.txt
Extension : .txt
Name : KFIXBJ.txt
Exists : True
CreationTime : 3/3/2021 1:32:10 PM
CreationTimeUtc : 3/3/2021 12:32:10 PM
LastAccessTime : 3/3/2021 1:38:42 PM
LastAccessTimeUtc : 3/3/2021 12:38:42 PM
LastWriteTime : 3/3/2021 1:32:10 PM
LastWriteTimeUtc : 3/3/2021 12:32:10 PM
Attributes : Archive

PS C:\> |
```