Information

This exercise explains the usage of the Cmdlet *Get-ChildItem* in PowerShell which is a successor to the command *dir* from the classic Windows command prompt.

Before solving the exercises, download the PowerShell script *wildcards-gci.ps1* and execute it by clicking *Execute with PowerShell* in the context menu. (Make sure that your system has an appropriate execution policy first.)

Afterwards run a PowerShell and use the Cmdlet *Set-Location* to change the working directory to *$Env:userprofile\Downloads*.

Hint: You can use *Clear-Host* to clear the screen, i.e. the screen buffer, if the screen is too cluttered by the output of the different commands.

Exercise 1

Set the working directory with *Set-Location* to folder *App1*.

Hints: Some tasks require more than one wildcard symbol.

a. List all *docx* files.

b. Note down the complete name of the file with the extension *db*.

c. Find all files whose name begins with *file1*.

d. List all files whose name begins with *image*.

e. Find all files whose extension begins with the letter ‚*d*‘.

f. List all *doc* and *docx* files.

g. List all *jpg* and *jpeg* files.

Exercise 2

Use *Set-Location* to set your working directory to folder *App2* which resides directly inside the *Downloads* folder.

Hints: The Cmdlet *Get-ChildItem* provides a parameter *-Recurse* for recursive traversal of all folders and subfolders and a parameter *-Exclude* to explicitly exclude results from the search. Furthermore there are *-File* resp. *-Directory* to include only files resp. folders in the result set.

a. Recursively list all files in folder *App2* and its subfolders.

b. List all *docx* files.

c. List all *jpg* and *jpeg* files.

d. List all subfolders of *App2*. The files contained in these subfolders must not be displayed.

e. List all files except the files with the extension *db*.

f. Only list the file with the extension *db*. Explicitly exclude the folders *AppData22* and *AppData23* from your search results.

g. (Bonus) Employ the Cmdlet *Measure-Object* to determine the number of files for each file type (*doc, docx, db, jpg, jpeg*).

Exercise 3

After discussing the results delete the folders *App1* and *App2* and all of their subfolders and files that have been generated by the script. Use either Windows Explorer[1] or the Cmdlet *Remove-Item* with the parameter *-Recurse*.

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[1] Under GNU/Linux use the respective file manager.