

# Create a Folder if not Exists with PowerShell

 lazyadmin.nl/powershell/create-folder-if-not-exists

October 1, 2024

Before you are going to create a folder, it's important to check if it doesn't exist already. Especially when you are creating scripts that will run automatically. If you don't check if the directory exists or not, your script might run into an error.

In this article, I will show you how you can create a new folder only if it does not exist.

## Create a Folder if not Exist

Before we are going to create a folder, we are first going to check if it exists or not. For this, we are going to use the `Test-Path` cmdlet, which will return `True` or `False` depending on the result. If the result is false, then we know that the directory doesn't exist, and we can go ahead by creating it.

```
# Set the folder path
$path = "c:\temp\newfolder\structure\"
# Check if folder not exists, and create it
if (-not(Test-Path $path -PathType Container)) {
    New-Item -path $path -ItemType Directory
}
```



```
PS D:\Scripts\LazyAdmin> $path = "c:\temp\newfolder\structure\"
PS D:\Scripts\LazyAdmin> if (-not(Test-Path $path -PathType Container)) {
>>     New-Item -path $path -ItemType Directory
>> }

Directory: C:\temp\newfolder

Mode                LastWriteTime         Length Name
----                -
d-----          30-9-2024   16:56         structure

PS D:\Scripts\LazyAdmin> |
```

An important thing to note here is that the `New-Item` cmdlet can and will create the complete folder structure. So, taking the example above, only the folder `c:\temp` existed. But the subfolder `newfolder` and the final folder `structure`, didn't exist. However, both are created automatically by the `New-Item` cmdlet.

We are also using the `-Not` operator, which you can shorten by using `!` instead, because we only want to check if the directory doesn't exist in this case.

The parameter `-PathType Container` makes sure that we only check for existing directories. For the `New-Item` cmdlet, we are using the parameter `-ItemType Directory` so we are sure that a folder is created, and not a file.

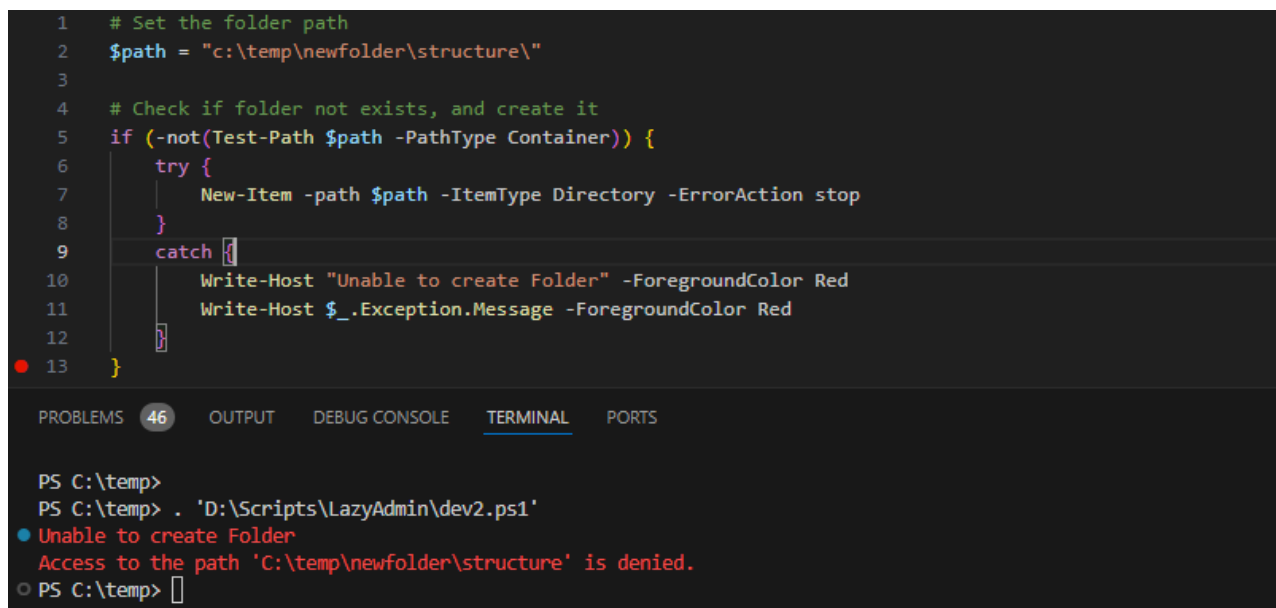
## Using Error Handling

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With the Test-Path check, we already caught most of the problems, but the New-Item cmdlet can still fail when creating a folder. You might, for example, not have write permissions in the parent folder, preventing you from actually creating the folder.

So the best way to create a new folder when it doesn't exist yet is to use a Try-Catch block as well. This allows you to catch any errors and handle them properly:

```
# Set the folder path
$path = "c:\temp\newfolder\structure\"
# Check if folder not exists, and create it
if (-not(Test-Path $path -PathType Container)) {
    try {
        New-Item -path $path -ItemType Directory -ErrorAction stop
    }
    catch {
        Write-Host "Unable to create Folder" -ForegroundColor Red
        Write-Host $_.Exception.Message -ForegroundColor Red
    }
}
```



```
1 # Set the folder path
2 $path = "c:\temp\newfolder\structure\"
3
4 # Check if folder not exists, and create it
5 if (-not(Test-Path $path -PathType Container)) {
6     try {
7         New-Item -path $path -ItemType Directory -ErrorAction stop
8     }
9     catch {
10        Write-Host "Unable to create Folder" -ForegroundColor Red
11        Write-Host $_.Exception.Message -ForegroundColor Red
12    }
13 }
```

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```
PS C:\temp>
PS C:\temp> . 'D:\Scripts\LazyAdmin\dev2.ps1'
• Unable to create Folder
  Access to the path 'C:\temp\newfolder\structure' is denied.
○ PS C:\temp> 
```

## Using only New-Item

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It's also possible to create a new folder when it doesn't exist by using the New-Item cmdlet only. We can use the **-Force** option, which will suppress any errors if a directory already exists. It will also return the folder object just like the cmdlet does when actually creating the folder.

If the folder already exists, then any content in the folder (or subfolders) will remain. So you won't lose any data with this method. The only advantage of this method is that it's shorter, and you can use one command to create and get the folder object whether it

exists or not.

```
# Set the folder path
```

```
$path = "c:\temp\newfolder\structure\"
```

```
# Create a folder whether is exists or not
```

```
New-Item -path $path -ItemType Directory -Force
```

By default, the New-Item cmdlet returns the folder object that it created. If you don't store this inside a variable, then it's outputted to the console. You can suppress this by piping Out-Null behind the cmdlet.

```
New-Item -path $path -ItemType Directory -Force | Out-Null
```

## Wrapping Up

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When writing scripts, it's best to be clear about what you are doing. Therefore I recommend using Test-Path first, and only creating the folder with the proper error handling if it doesn't exist.

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