Home work PowerShell.

1. Составляем зарос к сервису https://swapi.dev.

```
PS C:\Windows\system32> $uri = "https://swapi.dev/api/people/1/"
PS C:\Windows\system32> $request = [System.Net.WebRequest]::Create($uri)
PS C:\Windows\system32> $response = $request.GetResponse()
PS C:\Windows\system32> $stream = $response.GetResponseStream()
PS C:\Windows\system32> $reader = New-Object System.IO.StreamReader($stream)
PS C:\Windows\system32> $responseContent = $reader.ReadToEnd()
PS C:\Windows\system32> $reader.Close()
PS C:\Windows\system32> $stream.Close()
PS C:\Windows\system32> $response.Close()
PS C:\Windows\system32> $responseContent
{"name":"Luke Skywalker","height":"172","mass":"77","hair_color":"blond","skin_color":"fair","eye_color":"blue","birth_y
ear":"19BBY","gender":"male","homeworld":"https://swapi.dev/api/planets/1/","films":["https://swapi.dev/api/films/1/","h
ttps://swapi.dev/api/films/2/","https://swapi.dev/api/films/3/","https://swapi.dev/api/films/6/"],"species":[],"vehicles
":["https://swapi.dev/api/vehicles/14/","https://swapi.dev/api/vehicles/30/"],"starships":["https://swapi.dev/api/starsh
ips/12/","https://swapi.dev/api/starships/22/"],"created":"2014-12-09T13:50:51.644000Z","edited":"2014-12-20T21:17:56.89
1000Z","url":"https://swapi.dev/api/people/1/"}
PS C:\Windows\system32>
```

2. Составляем функцию для запроса.

api-request.ps1 ✕

```powershell
1  function Get-SWAPIResource {
2      param(
3          [Parameter(Mandatory = $true)]
4          [string]$ResourceUrl
5      )
6
7      try {
8          # create object
9          $request = [System.Net.WebRequest]::Create($ResourceUrl)
10         $request.Method = "GET"
11
12         # Sending a request and receiving a response
13         $response = $request.GetResponse()
14
15         try {
16             # Reading data from a response
17             $stream = $response.GetResponseStream()
18             $reader = New-Object System.IO.StreamReader($stream)
19             $responseContent = $reader.ReadToEnd()
20
21             # Closing threads
22             $reader.Close()
23             $stream.Close()
24
25             # Return received data
26             return $responseContent
27         }
28         finally {
29             $response.Close()
30         }
31     }
32     catch {
33         Write-Error "Error while executing request: $_"
34     }
35 }
36
37 # Calling a function to get data about a character with id 1
38 $resourceUrl = "https://swapi.dev/api/people/1/"
39 $result = Get-SWAPIResource -ResourceUrl $resourceUrl
40
41 # Converting JSON Data to a PowerShell Object
42 $person = ConvertFrom-Json $result
43
```

```
44    # Table output
45  □$table = @{
46        Name            = $person.name
47        Height          = $person.height
48        Mass            = $person.mass
49        HairColor       = $person.hair_color
50        SkinColor       = $person.skin_color
51        EyeColor        = $person.eye_color
52        BirthYear       = $person.birth_year
53        Gender          = $person.gender
54  └}
55
56    Write-Host "Character data with id 1:"
57    $table | Format-Table -AutoSize
```

```
PS C:\Windows\system32> C:\Work\api-request.ps1
Character data with id 1:

Name            Value
----            -----
Name            Luke Skywalker
Height          172
EyeColor        blue
Mass            77
HairColor       blond
SkinColor       fair
BirthYear       19BBY
Gender          male


PS C:\Windows\system32>
```

3. Создаём скрипт с одним входным параметорм (номер страницы с персонажами).

```powershell
function Get-SWAPIResource {
    param(
        [Parameter(Mandatory = $true)]
        [int]$pageNumber
    )

    $resourceUrl = "https://swapi.dev/api/people/?page=$PageNumber"

    try {
        # create object
        $request = [System.Net.WebRequest]::Create($ResourceUrl)
        $request.Method = "GET"

        # Sending a request and receiving a response
        $response = $request.GetResponse()

        try {
            # Reading data from a response
            $stream = $response.GetResponseStream()
            $reader = New-Object System.IO.StreamReader($stream)
            $responseContent = $reader.ReadToEnd()

            # Closing threads
            $reader.Close()
            $stream.Close()

            # Return received data
            return $responseContent
        }
        finally {
            $response.Close()
        }
    }
    catch {
        Write-Error "Error while executing request: $_"
    }
}
```

```powershell
     # Entering a page number with characters
     $pageNumber = Read-Host "Enter page number"

     # Calling a function to get data about a character
     $result = Get-SWAPIResource -PageNumber $pageNumber

     # Converting JSON Data to a PowerShell Object
     $data = ConvertFrom-Json $result

     # Creating a list for data output
     $characters = @()

     foreach ($character in $data.results) {
         $characters += @{
             Name          = $character.name
             Height        = $character.height
             Mass          = $character.mass
             HairColor     = $character.hair_color
             SkinColor     = $character.skin_color
             EyeColor      = $character.eye_color
             BirthYear     = $character.birth_year
             Gender        = $character.gender
         }
     }

     # Table output
     Write-Host "Character data on the page $pageNumber"
     $characters | Format-Table -AutoSize
```

```
PS C:\Windows\system32> C:\Work\api-request-param2.ps1
Enter page number: 3
Данные о персонажах на странице 3

Name         Value
----         -----
Name         Boba Fett
Height       183
EyeColor     brown
Mass         78.2
HairColor    black
SkinColor    fair
BirthYear    31.5BBY
Gender       male
Name         IG-88
Height       200
EyeColor     red
Mass         140
HairColor    none
SkinColor    metal
BirthYear    15BBY
Gender       none
Name         Bossk
Height       190
EyeColor     red
Mass         113
HairColor    none
```