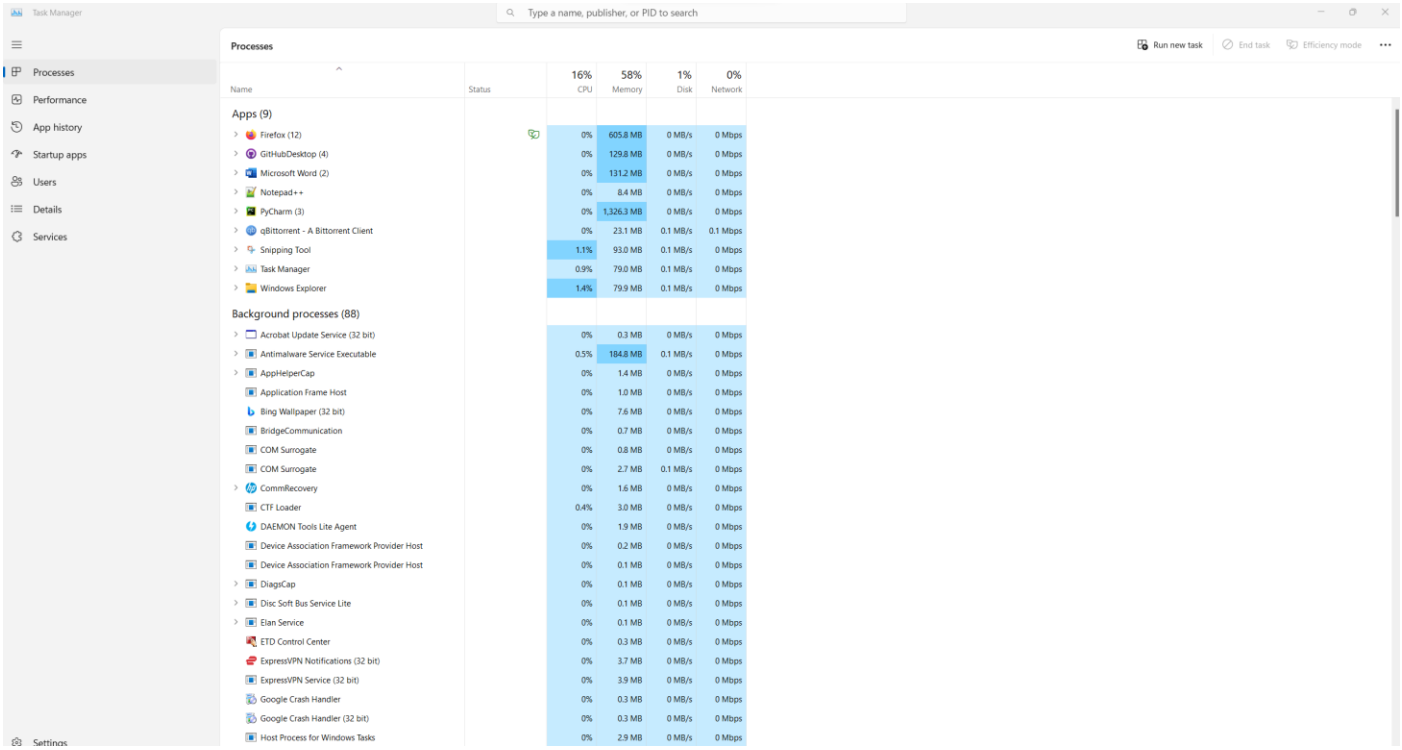
Homework: Operating Systems

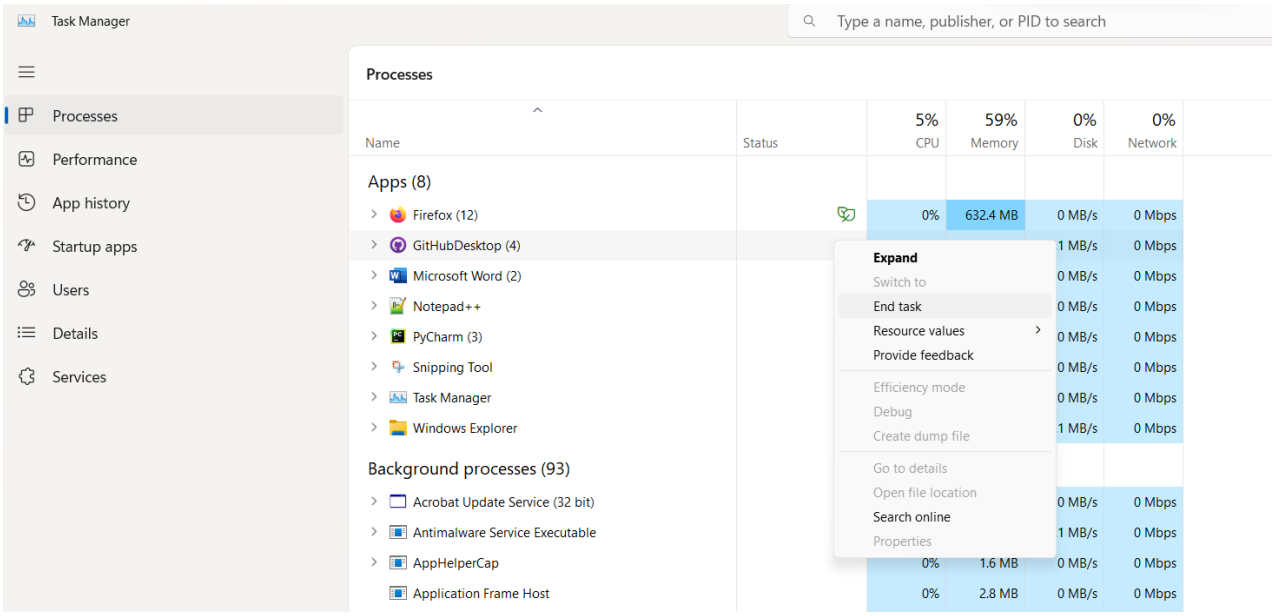
Problems for homework for the "Software Technologies" course @ Software University.
Submit this document as your homework.

1. Work with Task Manager in Windows

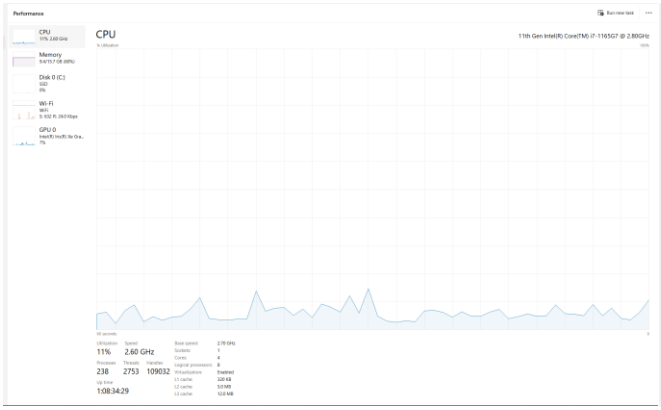
1. **View processes:**
    - Open Task Manager and view the list of running processes.
    - Identify any processes that are using a high amount of CPU or RAM.

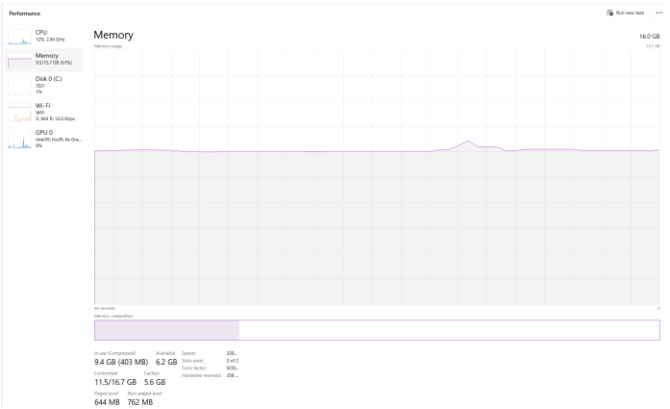


2. **Kill a process:**
    - Select a process from the list and end the task.



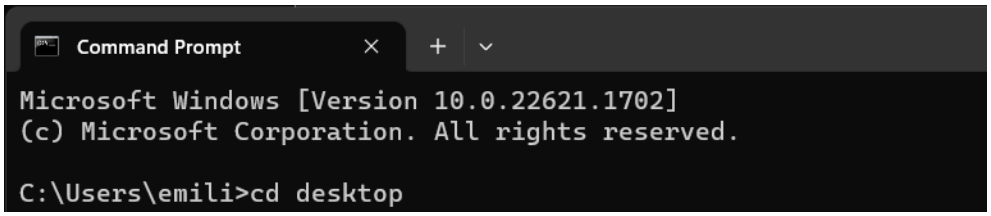
3. **View CPU & RAM usage:**
    - Navigate to the Performance tab in Task Manager and view the CPU & Memory usage.

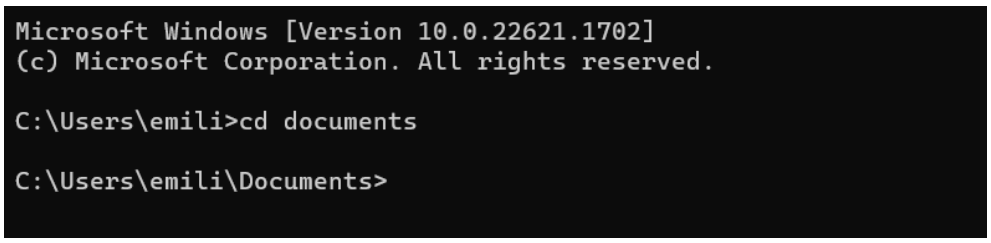


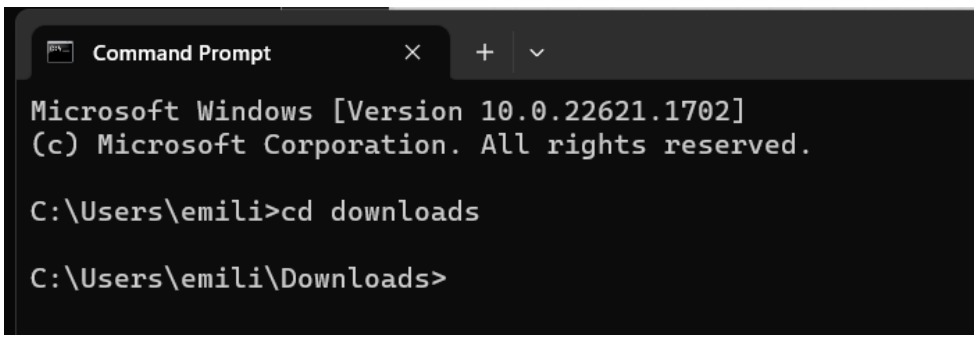


2. Play with Windows Terminal

1. **Navigate Directories:**
    - Use the "**cd**" command to navigate to different directories in the Windows Terminal:
        - Desktop
        - Documents
        - Downloads
    - Example (make screenshots of all three directories):



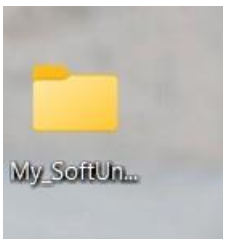




- Create folder named My_SoftUni_Repo on the Desktop through the Terminal.
- Example:

```
Command Prompt
Microsoft Windows [Version 10.0.22621.1702]
(c) Microsoft Corporation. All rights reserved.

C:\Users\emili>cd desktop

C:\Users\emili\Desktop>mkdir My_SoftUni_Repo

C:\Users\emili\Desktop>cd My_SoftUni_Repo

C:\Users\emili\Desktop\My_SoftUni_Repo>
```

```
C:\Users\emili\Desktop\My_SoftUni_Repo>dir
 Volume in drive C is Windows
 Volume Serial Number is DAD2-5942

 Directory of C:\Users\emili\Desktop\My_SoftUni_Repo

22-May-23  10:40    <DIR>          .
22-May-23  10:42    <DIR>          ..
               0 File(s)              0 bytes
               2 Dir(s)  569,725,009,920 bytes free
```




```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\emili> cd desktop
PS C:\Users\emili\desktop> mkdir My_SoftUni_Repo


    Directory: C:\Users\emili\desktop


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         22-May-23     10:45                My_SoftUni_Repo


PS C:\Users\emili\desktop>
```

- Enter the created folder through the Terminal and make a screenshot:

```
PS C:\Users\emili\desktop> cd  My_SoftUni_Repo
PS C:\Users\emili\desktop\My_SoftUni_Repo>
```

3. Play with Docker Playground & Run a Linux Shell inside

1. **Run your own container in Docker Playground and make an HTTP request from Linux Shell:**
    - Your task is to run a new docker container and make an HTTP request to the following API: **https://api.zippopotam.us/**
    - Extend the URL with "**de**" for Germany, and find a valid postal code that you can use to extract information from the API.
    - Replace the example images with your own screenshots.
    - Examples: