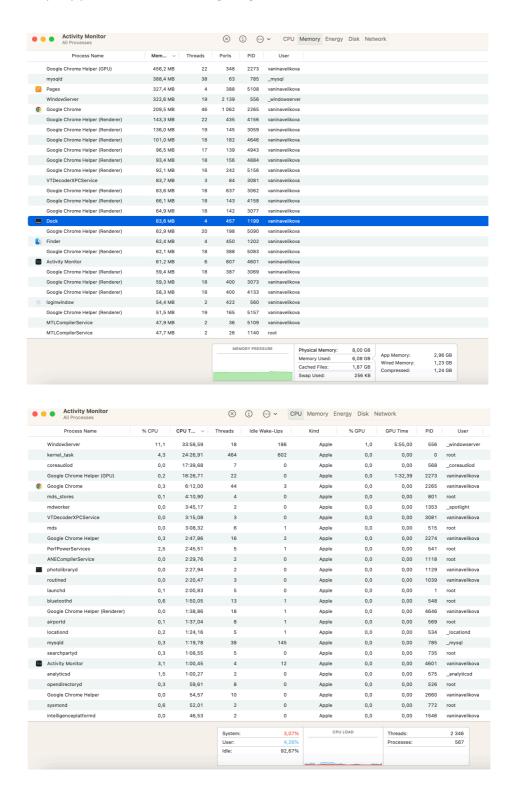
# **Homework: Operating Systems**

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.



















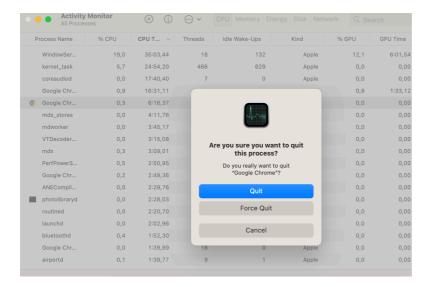






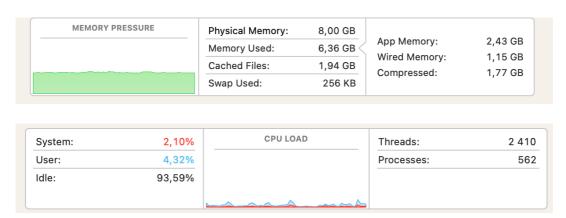
## 2. Kill a process:

Select a process from the list and end the task.



#### 3. View CPU & RAM usage:

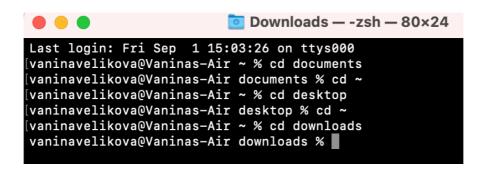
Navigate to the Performance tab in Task Manager and view the CPU & Memory usage.



# 2. Play with Windows Terminal

### 1. Navigate Directories:

- Use the "cd" command to navigate to different directories in the Windows Terminal:
  - ➤ Desktop
  - >> Documents
  - > Downloads





















Create folder named My SoftUni Repo on the Desktop through the Terminal.

```
My_SoftUni_Repo
                           📴 Desktop — -zsh — 80×24
Last login: Fri Sep 1 15:09:04 on ttys000
[vaninavelikova@Vaninas-Air ~ % cd desktop
vaninavelikova@Vaninas-Air desktop % mkdir My_SoftUni_Repo
vaninavelikova@Vaninas-Air desktop % ls
My_SoftUni_Repo
                                        Screenshot 2023-09-01 at 14.37.43.png
Screenshot 2023-08-28 at 13.07.20.png
                                        Screenshot 2023-09-01 at 14.38.59.png
Screenshot 2023-08-28 at 13.12.20.png
                                        Screenshot 2023-09-01 at 14.43.41.png
                                        Screenshot 2023-09-01 at 14.43.51.png
Screenshot 2023-08-28 at 13.41.23.png
Screenshot 2023-08-28 at 13.43.51.png
                                        Screenshot 2023-09-01 at 14.53.11.png
Screenshot 2023-09-01 at 14.19.14.png
                                        Screenshot 2023-09-01 at 15.09.34.png
Screenshot 2023-09-01 at 14.24.56.png
                                        Screenshot 2023-09-01 at 15.10.36.png
Screenshot 2023-09-01 at 14.34.57.png
vaninavelikova@Vaninas-Air desktop %
```

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

```
[vaninavelikova@Vaninas-Air desktop % cd ~/Desktop/My_SoftUni_Repo
[vaninavelikova@Vaninas-Air My SoftUni Repo % pwd
/Users/vaninavelikova/Desktop/My_SoftUni_Repo
vaninavelikova@Vaninas-Air 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.



















```
] (local) root@192.168.0.12
curl -s https://api.zippopotam.us/de/15230 | jq
"post code": "15230",
"country": "Germany",
"country abbreviation": "DE",
"places": [
    "place name": "Frankfurt (Oder)",
    "longitude": "52.3475",
    "state": "Brandenburg",
"state abbreviation": "BB",
     "latitude": "12053"
```

```
2] (local) root@192.168.0.12 ~
curl -s https://api.zippopotam.us/de/90402 | jq
"post code": "90402",
"country": "Germany",
"country abbreviation": "DE",
"places": [
    "place name": "Nürnberg",
    "longitude": "11.0778",
    "state": "Bayern",
    "state abbreviation": "BY",
    "latitude": "49.4504"
```















