

DAT234

Mandatory Python Scripting

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1 Introduction

The mandatory delivery consisted of six tasks within Python Scripting. For each task, there were only allowed to use the packages *requests* and *re*. The following tasks were:

- 1. Visit the site https://links.datapor.no (Lenker til en ekstern side.) with the use of requests and print out the source code.
- 2. How many links are using http vs https, with the use of regex.
- 3. Print out all the unique TLD.
- 4. print out all the unique hostname for each url.
- 5. Find all the unique html tags, with the use of regex
- 6. Visit each of the links found on https://links.datapor.no (Lenker til en ekstern side.), and visit each of the links and print out the title of the site *hint: look for <title> or <meta> tags*

2 Tools

The tasks were solved using the Python 3.7.3 programming language (www.python.org). The code was written using the Pycharm version 2019.2.1 IDE by JetBrains (www.jetbrains.com). All students in the group used the same software.

3 Task

3.1 How the tasks were solved

To get started with the tasks, it was necessary to research on the requests and re packages in addition to study the source code of the website to manage to harvest it. For the research of requests, the website Real Python was used (Ronquillo, A. 2019). A blog from Medium (Ahmad, Z., 2018) and a YouTube video from sentdex (sentdex, 2014) were used for studying the re package.

The source code of datapor's website was frequently used to ensure that the outputs of the tasks were correct.

3.2 Problems that were encountered

There were no problems when solving the tasks individually. The only problem that was encountered was that not all group members had the opportunity to meet while solving the tasks. This, combined with a lack of communication, lead to unequal distribution of work.

The result of this is the understanding that better communication is necessary for the next assignment.

4 Summary

5 References

Ahmad, Z. (2018, April 4). *Regular Expressions - The Last Guide*. Retrieved from https://medium.com/tech-tajawal/regular-expressions-the-last-guide-6800283ac034

Python 3.7.3 Programming Language https://www.python.org/downloads/

PyCharm 2019.2.1 IDE

https://www.jetbrains.com/pycharm/download/?_ga=2.40414884.760240466.1570708841-886158132.1567419535#section=windows

Ronquillo, A. (2019, January 21). *Python's Requests Library (Guide)*. Retrieved from https://realpython.com/python-requests/.

Sentdex, (2014, July 20).

Python 3 *Programming tutorial - Regular expressions / regex with re* Retrieved from https://www.youtube.com/watch?v=sZyAn2TW7GY