

Documentation for the Take Home Test from Canonical.

By Arnold Cornelius Mutayoba

The aim of this document is to show the whole process at which i tackled the take home test from Canonical. Thus, I have incorporated the time in terms of the amounts i took in doing respective parts of the challenge.

30minutes:

Read the problem as well as the resources given via email from Chris Sanders

1hour:

Planned via pseudo code and diagrams of how to go by doing the task.

Planned the mechanics of the task as well as anticipated bottlenecks. Which were majorly IO.

Did a manual download and parsing of the file

3hours:

Developed on PackageStats class and mechanism

Implemented the logging, usage, main as well as first 5 functions of the class.

As well as tested for possible edge cases

1 hour:

Finished the remaining part of the parsing and results presentation.

1.5 hours:

Tried to make the run time of the script shorter via research over google and time testing to know where bottlenecks are. The IO which is reading from a buffer in function processing and evaluate are the slowest part of the program.

Dependencies: (I did not have to install these as I already had them in my python library)

BeautifulSoup4

\$ pip install BeautifulSoup4

Or

\$ sudo apt-get install python-bs4 // for python 2

\$ sudo apt-get install python3-bs4 // for python 3

Python-pip

\$ sudo apt-get install python-pip (This can already come with the version of python you use. Try pip -V to see the version you have)