**Logs Analysis – A basic Python program using SQL to query a database**

This is a python coding exercise where we were given a database of authors, articles and a weblog with information about who has been looking online. This program connects to the database, query and the data to answer three questions;

1. What are the top three articles by number of views?
2. Who are the most popular article authors by views?
3. What are the days which saw error rates of more than 1%?

**Getting Started**

You can run logs.py from any command line.

**Prerequisites**

Python 3: The program is written in Python 3.7, so be certain that your version is that or greater. Here is the website to download Python: <https://www.python.org/downloads/>

Vagrant: You will need a virtual machine in which to run Python. Vagrant is my suggestion. You can download it at: <https://www.vagrantup.com/intro/getting-started/install.html>

Virtual Box: VirtualBox is a general-purpose full virtualizer for x86 hardware, targeted at server, desktop and embedded use. You will need it for Vagrant to work. Here is where you can download it: <https://www.virtualbox.org/wiki/Downloads>

**Running the program**

The first two queries are run as part of the program without any input.

To get the last query, you must give input. The underlying database is for one month – July of 2016. This program is written to be able to be adapted to a broader data set at some point in time in the future. It requests numerical input;\

1. What month are you looking to start the analysis? For July, you need to input the integer 7.
2. What year? In this case, use the integer 2016.
3. Finally, input how many days you want to analyze. In this case, use the integer 31 as that is how many days there are in July.

What is the Month to start the analysis - Use its number?7

What year?2016

How many days should the report run?31

Once you enter 7, hit return, enter 2016, hit return, enter 31, and hit return, the program will answer the final question.

**Deployment**

This is a simple python program. It is run in a virtual machine, i.e. VM. Vagrant is my suggestion. See prerequisites for how to ensure you can get a VM up and running.

**Built With**

* Python 3.7- T

**Versioning**

This is version 1.0. Future versions will be made to handle databases which are not finite and immutable.

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**License**

This program is freeware. If you can use the code, please do. If you have a way to make it more elegant, please let me know how and what you do!!

**Acknowledgments**

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