Python Developer Challenge

The goal of this task is mainly to assess the candidate's code style. Problem solving methodology and various common skill sets will be evaluated. Please make sure the code is readable, well documented and with a good test coverage.

Project submission must be one zip file containing all answers sent by email.

SQL

For the location with the most companies, list the names of people and the companies they work for. The output should consist of two columns PEOPLE.NAME, COMPANIES.NAME

There are 3 tables PEOPLE, COMPANIES, LOCATIONS

PEOPLE

Name	Type	Description
ID	String	Unique ID of the person
NAME	String	Name of the person
COMPANY_ID	String	ID of the company that person works for.

COMPANIES

Name	Type	Description
ID	String	The company ID
LOCATION_ID	String	The location ID of the company
NAME	String	The company name

LOCATIONS

Name	Type	Description
LOCATION_ID	String	The ID of the location
NAME	String	The location name

Programming.

The below exercise should be written in Python 3.5 or higher. Candidate should carefully name variables and put relevant comment. It is important to provide a clean code following Python

standards. Any logging or debugging information should be printed to stderr. Unit tests are a must and please avoid pandas to solve this problem.

Task 1

Write a process which will read the data at this location https://raw.githubusercontent.com/ag-grid/ag-grid/master/grid-packages/ag-grid-docs/src/blogs.json and then produce two functions to retrieve:

- Case A: all the comments written by a user order by date
- Case B: all the comments for a given date (format YYYY-MM-DD) with a specific keyword in the title

Task 2

Create a Flask app which will use the data here:

https://raw.githubusercontent.com/plotly/datasets/master/finance-charts-apple.csv

1- Cache the data in memory when the app start

2- Define an entry point which will return the average price using the column mavg over a given period

The entry point will be something like: GET /average?from=`2015-03-25&to=2015-06-30`