

Homework2 - Where is this IP

Related Topics

- Basic python syntax
- Basic file I/O
- 1D list, dictionary handling
- Sorting algorithm
- Searching algorithm

Introduction

In this homework, we have a json file with **40000** IPs along with its corresponding city (of course it's fake data generated by python module `mimesis`), and the task is to design a query system to search city for specific IP (100 queries) within reasonable time constraint.

Related Files

We provide the followings files:

- `query.csv`
- `ip_data.json`

and you should generate a answer file in csv format, refer to docstring for more detail information.

Requirement

Given the template code provided by TA, you need to fulfill all the methods and functions in the code. The score/point for each method or function is explained in the docstring.

Evaluate

Your script will be tested with following command:

```
python3 hw2.py <path to ip_data.csv> <path to query.csv> <path to answer.csv>
```

Must Read

- Do not use third-party packages such as numpy, pandas, and etc.
- Do not hard-coded the path in your script. **Use relative path.**
- Built-in `list.sort()` and `sorted()` are prohibited, you should implement your sort.
- Do not copy others code. (0 scores for punishment)