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# File Reading

Since the programming project suggests it, I'll put forward my short python snippet for simply loading data from a CSV file.

## **Python Code**

```
from typing import List
import csv

def read_csv(file_path: str) -> List[dict]:
    entries = []
    with open(file_path, mode='r') as file:
        csvFile = csv.DictReader(file)

    for entry in csvFile:
        entries.append(entry)

return entries
```

run code snippet

### **Example resources.csv**

```
Resource, Weight, Factor
Population, 0.3,
MetallicElements, 0.25,
Timber, 0.15,
MetallicAlloys, 0.2,
Electronics, 0.4,
Housing, 0.2,
```

(Factor was intentionally left blank for now)

### **Example state.csv**

```
Country, Population, Metallic Elements, Timber, Metallic Alloys, Electronics, Housing Atlantis, 1000, 10000, 500, 1000, 100, 500 Europa, 1000, 10000, 500, 1000, 100, 500 Pandora, 100, 1000, 50, 100, 10, 50
```

```
Neuronia,100,1000,50,100,10,50
Brick,100,1000,50,100,10,50
```

## **Python Usage**

```
resources = read_csv("resources.csv")
state = read_csv("state.csv")
print(resources)
print(state)
```

run code snippet

### Output

```
[{'Resource': 'Population', 'Weight': '0.3', 'Factor': ''}, {'Resource': 'MetallicEle ments', 'Weight': '0.25', 'Factor': ''}, {'Resource': 'Timber', 'Weight': '0.15', 'Factor': ''}, {'Resource': 'MetallicAlloys', 'Weight': '0.2', 'Factor': ''}, {'Resource': 'Bectronics', 'Weight': '0.4', 'Factor': ''}, {'Resource': 'Housing', 'Weight': '0.2', 'Factor': ''}]

[{'Country': 'Atlantis', 'Population': '1000', 'MetallicElements': '10000', 'Timber': '500', 'MetallicAlloys': '1000', 'Electronics': '100', 'Housing': '500'}, {'Country': 'Europa', 'Population': '1000', 'MetallicElements': '10000', 'Timber': '500', 'MetallicAlloys': '100', 'Housing': '500'}, {'Country': 'Pandora', 'Population': '100', 'MetallicElements': '1000', 'Timber': '50', 'MetallicAlloys': '100', 'Electronics': '10', 'Housing': '50'}, {'Country': 'Neuronia', 'Population': '10', 'MetallicElements': '1000', 'Timber': '50', 'MetallicAlloys': '100', 'Electronics': '10', 'Housing': '50'}, {'Country': 'Brick', 'Population': '100', 'MetallicElements': '100', 'Timber': '50', 'MetallicAlloys': '100', 'Electronics': '10', 'Housing': '50'}]
```

run code snippet

There's nothing too fancy with this approach. Just simple parsing of each CSV line into a dict that lines up with the headers. All other considerations will have to be left for elsewhere.

programming\_project / part\_1\_discussions

~ An instructor (Will Hedgecock) endorsed this note ~

Edit good note 2

Updated 1 year ago by John Ford

followup discussions for lingering questions and comments

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