neo

Currency Conversion

Problem

Neo is looking to find the best currency conversion possible for our customers. However, we don't have direct Canadian Dollar conversions to all currencies so we have to trade currencies for other currencies. It is possible that we can go from one currency to another, and that a currency could show up multiple times.

```
Example

Convert CAD to EUR
CAD -> GBP -> EUR

There are no cycles
CAD -> EUR -> GBP -> EUR
```

Utilizing the API data, return the best possible conversion rate for every currency we can get, assuming we start with $100 CAD. The best possible conversion rate should yield the highest possible amount of currency that you are converting to. Given the following example, the longer route yields the higher amount (95.00) and is therefore the best conversation rate.

```
CAD -> HKD = 90.00
CAD -> GBP -> DOGE -> HKD = 95.000
```

API Endpoint

When you're ready to start click the button below to get your API URL.

Get API URL

Requirements

- Use one of the following languages: Javascript, Typescript, Java, C#, Python or Ruby
- Ensure you comment your code
- Use a REST call to get the data, do not hardcode it into your source code.
- Generate a CSV file as an output that contains optimal conversions from CAD to all currencies. The file should have the following format:
  - Currency Code (ie. AUD, USD, BTC)
  - Country (ie. Australia, USA, Bitcoin)
  - Amount of currency, given we started with $100 CAD (ie. 1500.43)
  - Path for the best conversion rate, pipe delimited (ie. CAD | GBP | EUR)