Data Engineer Programming Assignment

We've provided a source file, `btc.csv`, which contains several years of Bitcoin pricing data.
Please provide a solution which filters and summarises this data. The original pricing is in USD but as a European organisation we'd like to view summaries in Euros.

There are three outputs expected

1. A new file with the past year's data
2. A short summary table to the standard output
3. A line chart of the past year's price

Providing the Solution

You can use any environment for your solution implementation. If in doubt though, the Python tooling is a good choice.
Please provide the solution as if this was part of a project you were working on with your team.

Summary File

Please output a new csv file. The summary file should contain the following:

- Past year's data
- Columns: `date`, `generatedCoins`, `paymentCount`.
- New Columns: `marketcap(USD)` & `price(USD)` converted to Euro

The daily USD to EUR conversion rate can be assumed as 0.87 for this example.

Please note that whenever we mention `past year`, we mean the past 365 days from the last data point's date in the csv file provided.

Summary Output

Print the following on the standard output:

- Total coins generated in the past year.
- Min, max and mean for the following metrics in the past year:
    - marketCap(EUR) in billions of euros.
    - price(EUR)
    - generatedCoins
    - paymentCount

Example output:

	min	max	average
marketcap(EUR)	nn.nn	nn.nn	nn.nn
price(EUR)	nn.nn	nn.nn	nn.nn
generatedCoins	nn.nn	nn.nn	nn.nn
paymentCount	nn.nn	nn.nn	nn.nn

Line chart

Plot a line-graph (export as an image file) of the Bitcoin price in the past year.