

# CLI Application

The application consists of 3 files in total:

- **database.db**
- **dbsource.py**
- **app.py**

In short database.db is the pool where all the data required by the delivery have been saved, inside there are 4 tables:

- **stockAnagraphic**: which contains all the data relating to 110 different stocks
- **stockHistorical**: which contains historical data for 132 different stocks:

A	AA	AAA	AAAU	AACG	AACQ
AACQU	AADR	AAIC	AAL	AAMC	AAME
AAN	AAOI	AAON	AAP	AAPL	AAT
AAU	AAWW	AAXJ	AAXN	AB	ABB
ABBV	ABC	ABCB	ABCM	ABEO	ABEQ
ABEV	ABG	ABIO	ABM	ABMD	ABR
ABST	ABT	ABTX	ABUS	AC	ACA
ACACU	ACAD	ACAM	ACAMU	ACB	ACBI
ACC	ACCD	ACCO	ACEL	ACER	ACES
ACET	ACEV	ACEVU	ACGL	ACGLO	ACGLP
ACH	ACHC	ACHV	ACI	ACIA	ACIO
ACIU	ACIW	ACLS	ACM	ACMR	ACN
ACNB	ACND	ACND+	ACOR	ACP	ACRE
ACRS	ACRX	ACSG	ACSI	ACST	ACTCU
ACTCW	ACTG	ACTV	ACU	ACV	ACWF
ACWI	ACWV	ACWX	ACY	ADAP	ADBE
ADC	ADCT	ADES	ADFI	ADI	ADIL
ADM	ADMA	ADME	ADMP	ADMS	ADNT
ADP	ADPT	ADRE	ADS	ADSK	ADT
ADTN	ADTX	ADUS	ADV	ADVM	ADX
ADXN	ADXs	AE	AEB	AEE	AEF
AEFC	AEG	AEGN	AEHL	AEHR	AEIS

- **exchangeAnagraphic**: which contains all the exchange anagraphics
- **exchange Historical**: which contains the historical data only for OANTA exchange since for all others there was no data

dbsource.py contains all the methods and logic with which the database was built starting from the creation of the tables to their direct population through the finnhub.io APIs and app.py is the executable that, through the input in the command line, make it possible to access the required functions.

## Command line options:

\$cmd\CLI\python app.py -convertPrint {param}

ex **param:** AAPL EUR

**python app.py -convertPrint AAPL EUR**

Convert and print historical stock quotes (close prices) in any foreign currency

\$cmd\CLI\python app.py -latestStockQuote {param}

ex **param:** AAPL EUR

**python app.py -latestStockQuote AAPL EUR**

or

**python app.py -latestStockQuote AAPL**

Print latest stock quote for a given asset with the option to apply a currency exchange

\$cmd\CLI\python app.py -drawExchangeGraph {param}

ex **param:** AUD\_USD

**python app.py -drawExchangeGraph AUD\_USD**

Draw a graph based on whole historical data for an exchange with currency inputs

\$cmd\CLI\python app.py -drawStockGraph {param}

ex **param:** AAPL 02/11/2020 15/11/2020

**python app.py -drawStockGraph AAPL 02/11/2020 15/11/2020**

or

**python app.py -drawStockGraph AAPL**

Draw a graph based on whole historical data for a stock with interval option

\* All the data saved are between 01/11/2020 & 30/11/2020 so the interval must be inside November 2020

\*candles resolution for both stock and exchange are 1 day ('D')

TEST:

python app.py -convertPrint AAPL EUR

```
C:\Users\ingemima\Desktop>python app.py -convertPrint AAPL EUR
From USD: 108.76999664307 To EUR: 89.80720525374232
From USD: 110.44000244141 To EUR: 91.18606484862322
From USD: 114.94999694824 To EUR: 94.90979395470421
From USD: 119.0299987793 To EUR: 98.27849463675021
From USD: 118.69000244141 To EUR: 97.99777272956283
From USD: 116.31999969482 To EUR: 96.04095256146638
From USD: 115.9700012207 To EUR: 95.75197227486274
From USD: 119.48999786377 To EUR: 98.65829819904224
From USD: 119.20999908447 To EUR: 98.42711396975602
From USD: 119.26000213623 To EUR: 98.46839956754326
From USD: 120.30000305176 To EUR: 99.32708834724023
From USD: 119.38999938965 To EUR: 98.5757333027701
From USD: 118.0299987793 To EUR: 97.4528330754242
From USD: 118.63999938965 To EUR: 97.95648713177559
From USD: 117.33999633789 To EUR: 96.88312458233085
From USD: 113.84999847412 To EUR: 94.00156749710607
From USD: 115.16999816895 To EUR: 95.09144050608927
From USD: 116.0299987793 To EUR: 95.80150995277216
From USD: 116.58999633789 To EUR: 96.26387841133634
From USD: 119.05000305176 To EUR: 98.29501139558272
```

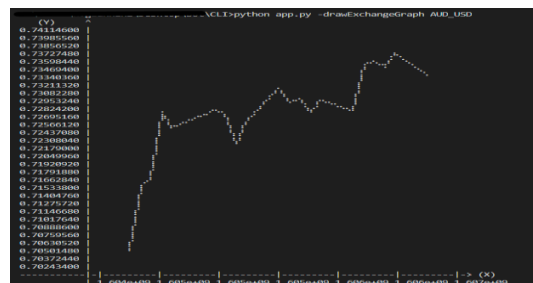
python app.py -latestStockQuote AAPL EUR

```
C:\Users\ingemima\Desktop>python app.py -latestStockQuote AAPL EUR
Current AAPL price in EUR: 101.06923172191719
```

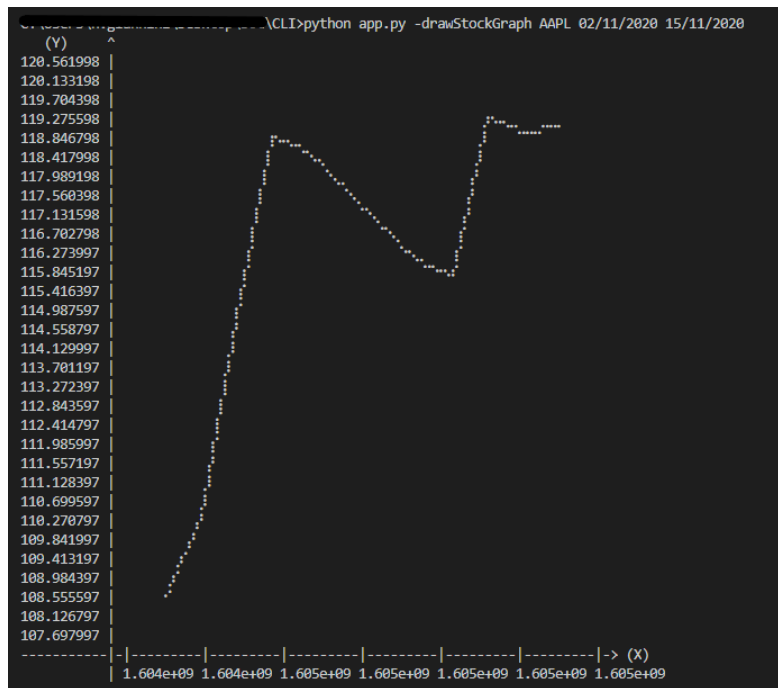
python app.py -latestStockQuote AAPL

```
C:\Users\ingemima\Desktop>python app.py -latestStockQuote AAPL
Current AAPL price in USD: 122.41
```

python app.py -drawExchangeGraph AUD\_USD



python app.py -drawStockGraph AAPL 02/11/2020 15/11/2020



python app.py -drawStockGraph AAPL

