

TD3 : Automating trading

- Create a git repository and share it with the teacher

<https://github.com/S-uzan/TD3>

```
nonS /Users/samuel/Desktop/A4/S8/blockchain/TD3.py
Que voulez vous faire?
Taper 1 pour Afficher toutes les cryptomonnaies disponibles
Taper 2 pour Afficher le 'bid' ou le 'ask' d'un asset
Taper 3 pour Afficher l'order book d'un asset
Taper 4 pour Afficher les 'candles' d'un asset
Taper 5 pour Afficher les derniers trades d'un asset
Taper 0 pour quitter
```

- Get a list of all available cryptocurrencies and display It

Taper 1

```
Taper 0 pour quitter
1
['OXT', 'REP', 'ETH', 'BCH', 'DNT', 'ETC', 'ATOM', 'DASH', 'ZEC', 'EOS', 'BTC', 'ZRX', 'CVC',
 'LOOM', 'XRP', 'BAT', 'XLM', 'GNT', 'DAI', 'LTC', 'XTZ', 'LINK', 'ALGO', 'MANA']
Que voulez vous faire?
```

- Create a function to display the 'ask' or 'bid' price of an asset. Direction and asset name as parameters

Taper 2

```
Taper 0 pour quitter
2
Que voulez vous Afficher?
Taper 0 pour Afficher le bid
Taper 1 pour Afficher le ask
0
Entrez le nom de la pair (ex: BTC-USD):
BTC-USD
bid: 9350.38
Que voulez vous faire?
```

- Get order book for an asset

Taper 3

```
3
Entrez le nom de la pair (ex: BTC-USD):
BTC-USD
Bids:
[['9355.12', '0.0164', 2], ['9353.69', '0.008', 1], ['9351.14', '0.38534298', 2], ['9351.13',
 '1.065', 1], ['9349.76', '0.01', 1], ['9349.75', '0.39387009', 1], ['9348.01', '0.013066', 1
 ], ['9348', '3.999', 1], ['9347.99', '4.6', 1], ['9347.18', '2.136', 1], ['9347.13', '0.37393
```

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', '1.17', 1], ['9330', '0.99128792', 2], ['9328.91', '0.02316372', 1], ['9328.85', '2.28', 1
]]
Asks:
[['9355.13', '6.74646898', 10], ['9355.14', '0.0275', 1], ['9355.72', '0.85', 1], ['9355.73',
'0.34007962', 1], ['9355.76', '0.50256114', 1], ['9356.19', '2', 1], ['9357.05', '3.203', 2],
['9357.1', '0.0325', 1], ['9357.67', '0.94292066', 1], ['9358.19', '0.32057', 1], ['9359.2',
'0.27204512', 1], ['9359.31', '0.213601', 1], ['9359.32', '0.00150001', 1], ['9359', '0.1

```

- Create a function to read aggregated trading data (candles)
- Create a sqlite table to store said data
- Store candle data in the db

Taper 4

Les données seront stockées dans un fichier candles.db qui sera créée dans le dossier ou se trouve le code.

Si on veut relancer cette fonction il faudra supprimer le fichier avant

```

4
Entrez le nom de la pair (ex: BTC-USD):
BTC-USD
Entrez la durée des candles en seconde
300
(1580730300, 9336.64, 9359.32, 9349.98, 9336.64, 5.46714672)
(1580730000, 9339.55, 9374.05, 9342.87, 9345.0, 66.81348547)
(1580729700, 9335.0, 9343.44, 9335.0, 9338.78, 10.91338692)
(1580729400, 9327.47, 9335.01, 9328.33, 9335.01, 2.45700452)
(1580729100, 9320.61, 9330.98, 9325.03, 9328.33, 4.94710174)

```

J'ouvre le fichier avec DB browser for sqlite

	date	low	high	open	close	volume
	Filtre	Filtre	Filtre	Filtre	Filtre	Filtre
1	1580730300	9336.64	9359.32	9349.98	9336.64	5.46714672
2	1580730000	9339.55	9374.05	9342.87	9345.0	66.81348547
3	1580729700	9335.0	9343.44	9335.0	9338.78	10.91338692
4	1580729400	9327.47	9335.01	9328.33	9335.01	2.45700452
5	1580729100	9320.61	9330.98	9325.03	9328.33	4.94710174
6	1580728800	9315.01	9325.12	9322.47	9322.89	13.87920856
7	1580728500	9320.15	9327.03	9327.03	9322.48	3.88305341
8	1580728200	9321.23	9327.03	9324.53	9327.03	4.26553225
9	1580727900	9316.69	9329.67	9320.02	9320.8	6.76348557
10	1580727600	9281.13	9318.33	9296.5	9318.31	11.75294771
11	1580727300	9288.59	9311.75	9293.09	9296.51	6.63642173
12	1580727000	9292.04	9306.27	9305.24	9292.45	9.0481149
13	1580726700	9300.0	9316.13	9316.13	9305.24	4.55528356
14	1580726400	9315.0	9319.74	9315.01	9316.12	1.08390461
15	1580726100	9313.76	9319.28	9319.13	9315.01	4.19259452

Id	time	price	size	side
Filtre	Filtre	Filtre	Filtre	Filtre
82181478	2020-02-03T1...	9325.17	0.47918205	buy
82181479	2020-02-03T1...	9325.18	0.00554962	sell
82181480	2020-02-03T1...	9330.15	0.00200131	sell
82181481	2020-02-03T1...	9333.32	0.00548108	buy
82181482	2020-02-03T1...	9330.9	0.01064935	buy
82181483	2020-02-03T1...	9329.1	0.00677467	buy
82181484	2020-02-03T1...	9333.5	0.00197378	sell
82181485	2020-02-03T1...	9335.37	0.01066064	sell
82181486	2020-02-03T1...	9332.07	0.005	sell
82181487	2020-02-03T1...	9333.75	0.00534199	sell
82181488	2020-02-03T1...	9333.9	0.00405199	sell
82181489	2020-02-03T1...	9333.9	0.02194801	sell
82181490	2020-02-03T1...	9333.9	0.007	sell
82181491	2020-02-03T1...	9333.9	0.002	sell
82181492	2020-02-03T1...	9333.91	0.01056971	sell