R Markdown Output

Overview

This document has code embedded throughout. In the next section we will create a visualization using the already loaded dataset eth_data:

datatable(eth_data)

Price Chart - Ethereum



date_time_utc

NaT

49139.240 2021-04-23 05:00:00

2280.555 2021-04-23 04:00:01

11972.900 2020-08-10 06:03:50

11985.890 2020-08-10 05:03:48 11997.470 2020-08-10 04:32:55

Python Code Example

```
import pandas as pd
# Create the Python object from R
df = r.cryptodata
# Show the new Python dataframe
df
##
            pair symbol
                          ask_1_price
          ETHUSD
                    ETH
                             2225.000 2021-04-23 06:00:01
## 1
          BTCUSD
                    BTC
                            49504.880 2021-04-23 06:00:00
## 2
          ETHUSD
                    ETH
                             2208.537 2021-04-23 05:00:01
```

BTC

ETH

. . .

BTC

BTC

BTC

BTC

10686.880

BTCUSD

ETHUSD

BTCUSD

BTCUSD

BTCUSD

BTCUSD

3

4 ## ...

11405

11406

11407

11408

```
## 11409 ETHUSD
                    ETH
                              357.844
                                                       NaT
##
## [11410 rows x 4 columns]
```

One more Python example

The code below creates a new column price_percentile that specifies if the price for the row was in the upper or lower 50th percentile of prices (BTC should be upper and ETH lower):

```
import numpy as np
# Create a new column based on the ask_1_price value:
df['price_percentile'] = np.where(df['ask_1_price'] >
                                  np.percentile(df['ask_1_price'], 50),
                             'upper 50th percentile of prices',
                            'lower 50th percentile of prices')
# Show modified dataframe:
df[['symbol', 'ask_1_price', 'price_percentile']]
##
         symbol
                 ask_1_price
                                              price_percentile
## O
            ETH
                    2225.000
                              lower 50th percentile of prices
                              upper 50th percentile of prices
## 1
            {\tt BTC}
                   49504.880
                              lower 50th percentile of prices
## 2
                    2208.537
            ETH
                              upper 50th percentile of prices
## 3
            BTC
                   49139.240
## 4
            ETH
                    2280.555
                              lower 50th percentile of prices
## ...
## 11405
                   11972.900
                              upper 50th percentile of prices
            BTC
## 11406
                              upper 50th percentile of prices
            BTC
                   11985.890
## 11407
            BTC
                   11997.470
                              upper 50th percentile of prices
                   10686.880
                              upper 50th percentile of prices
## 11408
            BTC
## 11409
            ETH
                     357.844 lower 50th percentile of prices
##
## [11410 rows x 3 columns]
```