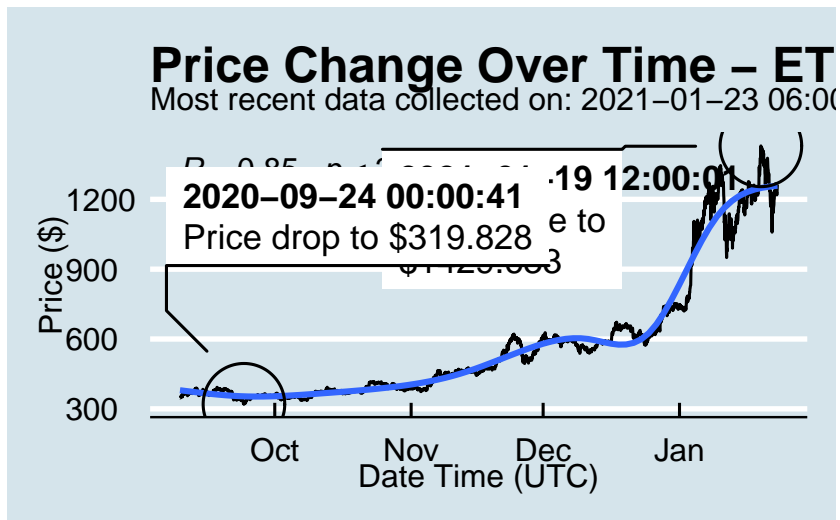# R Markdown Output

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

Python Code Example

```python
import pandas as pd
# Create the Python object from R
df = r.cryptodata
# Show the new Python dataframe
df
```

```
##            pair symbol  ask_1_price          date_time_utc
## 0       ETHUSD    ETH     1263.555  2021-01-23 06:00:01
## 1       BTCUSD    BTC    33361.210  2021-01-23 06:00:00
## 2       ETHUSD    ETH     1247.547  2021-01-23 05:00:01
## 3       BTCUSD    BTC    32584.760  2021-01-23 05:00:00
## 4       ETHUSD    ETH     1231.754  2021-01-23 04:00:01
## ...        ...    ...          ...                    ...
## 7089    BTCUSD    BTC    11972.900  2020-08-10 06:03:50
## 7090    BTCUSD    BTC    11985.890  2020-08-10 05:03:48
## 7091    BTCUSD    BTC    11997.470  2020-08-10 04:32:55
## 7092    BTCUSD    BTC    10686.880                    NaT
```

```
## 7093  ETHUSD    ETH      357.844                NaT
##
## [7094 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):

```python
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
## 0        ETH     1263.555  lower 50th percentile of prices
## 1        BTC    33361.210  upper 50th percentile of prices
## 2        ETH     1247.547  lower 50th percentile of prices
## 3        BTC    32584.760  upper 50th percentile of prices
## 4        ETH     1231.754  lower 50th percentile of prices
## ...      ...          ...                               ...
## 7089     BTC    11972.900  upper 50th percentile of prices
## 7090     BTC    11985.890  upper 50th percentile of prices
## 7091     BTC    11997.470  upper 50th percentile of prices
## 7092     BTC    10686.880  upper 50th percentile of prices
## 7093     ETH      357.844  lower 50th percentile of prices
##
## [7094 rows x 3 columns]
```