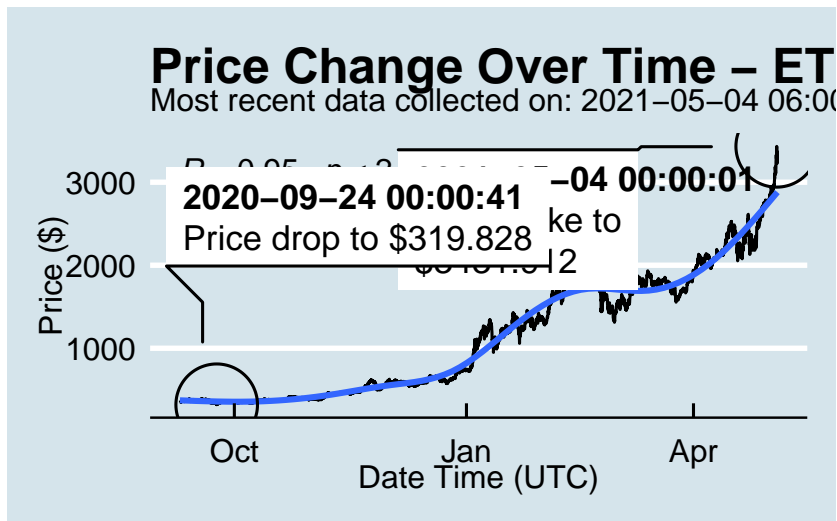# R Markdown Output

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       3379.904   2021-05-04 06:00:01
## 1          BTCUSD    BTC      55999.190   2021-05-04 06:00:00
## 2          BTCUSD    BTC      55820.730   2021-05-04 05:00:01
## 3          ETHUSD    ETH       3346.473   2021-05-04 05:00:01
## 4          ETHUSD    ETH       3233.127   2021-05-04 04:00:01
## ...           ...    ...           ...                   ...
## 11931      BTCUSD    BTC      11972.900   2020-08-10 06:03:50
## 11932      BTCUSD    BTC      11985.890   2020-08-10 05:03:48
```

```
## 11933  BTCUSD    BTC     11997.470 2020-08-10 04:32:55
## 11934  BTCUSD    BTC     10686.880                  NaT
## 11935  ETHUSD    ETH       357.844                  NaT
##
## [11936 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     3379.904  lower 50th percentile of prices
## 1          BTC    55999.190  upper 50th percentile of prices
## 2          BTC    55820.730  upper 50th percentile of prices
## 3          ETH     3346.473  lower 50th percentile of prices
## 4          ETH     3233.127  lower 50th percentile of prices
## ...        ...          ...                              ...
## 11931      BTC    11972.900  upper 50th percentile of prices
## 11932      BTC    11985.890  upper 50th percentile of prices
## 11933      BTC    11997.470  upper 50th percentile of prices
## 11934      BTC    10686.880  upper 50th percentile of prices
## 11935      ETH      357.844  lower 50th percentile of prices
##
## [11936 rows x 3 columns]
```