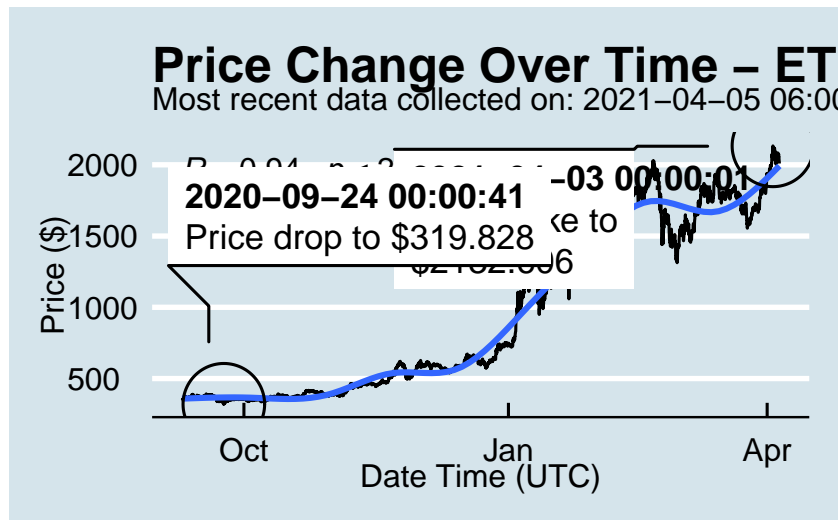# R Markdown Output

## 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      2008.939  2021-04-05 06:00:01
## 1       BTCUSD    BTC     56909.750  2021-04-05 06:00:00
## 2       BTCUSD    BTC     57288.290  2021-04-05 05:00:01
## 3       ETHUSD    ETH      2022.273  2021-04-05 05:00:01
## 4       ETHUSD    ETH      2028.315  2021-04-05 04:00:01
## ...        ...    ...           ...                  ...
## 10541   BTCUSD    BTC     11972.900  2020-08-10 06:03:50
## 10542   BTCUSD    BTC     11985.890  2020-08-10 05:03:48
## 10543   BTCUSD    BTC     11997.470  2020-08-10 04:32:55
## 10544   BTCUSD    BTC     10686.880                  NaT
```

```
## 10545  ETHUSD    ETH       357.844                    NaT
##
## [10546 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     2008.939  lower 50th percentile of prices
## 1          BTC    56909.750  upper 50th percentile of prices
## 2          BTC    57288.290  upper 50th percentile of prices
## 3          ETH     2022.273  lower 50th percentile of prices
## 4          ETH     2028.315  lower 50th percentile of prices
## ...        ...          ...                              ...
## 10541      BTC    11972.900  upper 50th percentile of prices
## 10542      BTC    11985.890  upper 50th percentile of prices
## 10543      BTC    11997.470  upper 50th percentile of prices
## 10544      BTC    10686.880  upper 50th percentile of prices
## 10545      ETH      357.844  lower 50th percentile of prices
##
## [10546 rows x 3 columns]
```