Quandl


Algothon 2018 @ BlackRock
ALGOTHON.ORG
BLACKROCK
Algorithmic Trading Society
18

One Access Point

12 Million Data Sets

Quandl

Over 500 Data sources

Futures, Stocks, Options, Global Economics, Housing, Education, Health

Gold, oil, GDP, Gini index, splits, dividends, literacy rates, earnings surprises, China core fundamentals, home values, continuous futures, FOREX rates, diabetes rates, twitter account sats, Bitcoin, coal, natural gas, energy consumption, global yield curves, population data, stock fundamentals, Shanghai futures, options volatilities, oil production by country, iridium prices, federal reserve economic data, corn, startup valuations, venture capital, dry bulk freight forward agreements, industrial metals, cereals, sports, alexa ranking

Quandl

All Quandl Data is

- Accessible in the format that works best for you
- Accessible with the tools that work for you
- Easily findable
- Verifiably Sourced

Quandl

Getting Data as easily as possible

Quandl

API

Quandl

Python:

Load the library:

```
import Quandl
```

Get your data into a pandas data series:

```
mydata = Quandl.get(“”WIKI/AAPL”)
```

Get a numpy array:

```
mydata = Quandl.get(“WIKI/AAPL”,     returns=“numpy”)
```

It couldn’t be easier

Quandl

URL structure

London gold price:

quandl.com/data/LBMA/GOLD

Literacy rates in Serbia:

quandl.com/data/UNDATA/GEN_LITR_SRB

Price of 2 Bedroom homes in NYC:

quandl.com/data/ZILLOW/METRO_2BEDROOM_NEWYORKNY

Quandl

Bulk Downloads

- Full database all at once.
- Accessible via API or download link
- Available for all premium data sets

Quandl

Premium Data

Quandl

Premium Data

- 5 million professional grade financial datasets
- valuable, high-alpha data
- Free previews for logged in users

Quandl

Using Quandl

with Quantopian

Quandl

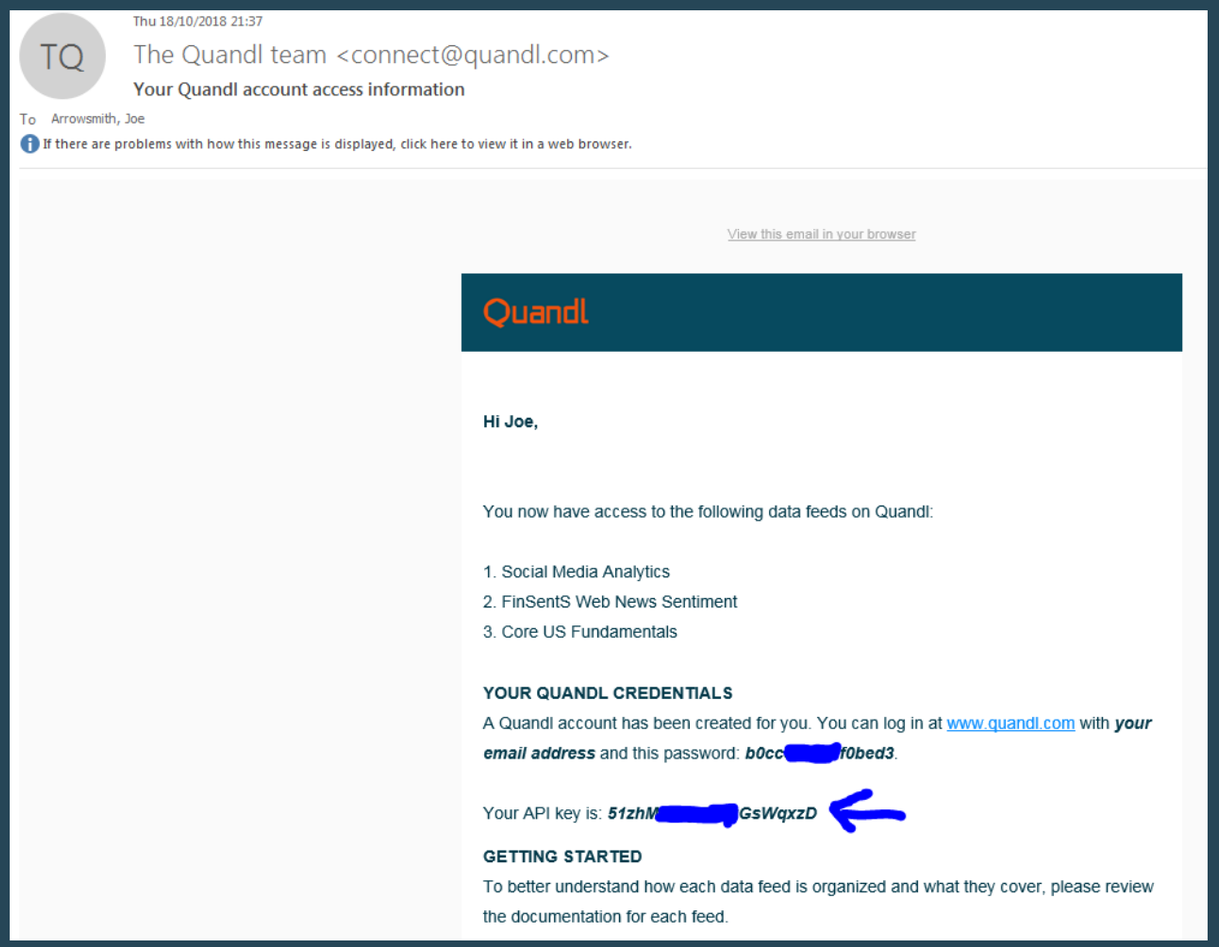
STEP #1

GET YOUR API KEY

Quandl

Getting your API key

- You received an email, 4pm on Friday, from connect@quandl.com
- Contact a volunteer if you did not receive this email.



Thu 18/10/2018 21:37

TQ

The Quandl team <connect@quandl.com>

Your Quandl account access information

To Arrowsmith, Joe

If there are problems with how this message is displayed, click here to view it in a web browser.

View this email in your browser

Quandl

Hi Joe,

You now have access to the following data feeds on Quandl:

1. Social Media Analytics
2. FinSentS Web News Sentiment
3. Core US Fundamentals

YOUR QUANDL CREDENTIALS

A Quandl account has been created for you. You can log in at www.quandl.com with ***your email address*** and this password: ***b0cc[redacted]f0bed3***.

Your API key is: ***51zhM[redacted]GsWqxzD***

GETTING STARTED

To better understand how each data feed is organized and what they cover, please review the documentation for each feed.

Quandl


Quandl
Platform
Help
brianrisk
ACCOUNT SETTINGS
SUPERSETS
FAVOURITES
LOGOUT
Eg. Bitcoin, Crude Oil Futures, Chinese GDP, US Crime Rate
New Resources:
API for Stock Data
US Stock Data
China Data
Browse
STOCKS & FUNDAMENTALS

Quandl

Getting the data

Quandl

Downloading by URL

Quandl

Standard beginning part

quandl.com/api/v1/datasets/

Quandl

Database code

quandl.com/api/v1/datasets/EOD

Quandl

Data set code

quandl.com/api/v1/datasets/EOD/AAPL

Quandl

File type

quandl.com/api/v1/datasets/EOD/AAPL.csv

Quandl

File type

quandl.com/api/v1/datasets/EOD/AAPL.csv

quandl.com/api/v1/datasets/EOD/AAPL.json

quandl.com/api/v1/datasets/EOD/AAPL.xml

Quandl

API key

quandl.com/api/v1/datasets/EOD/AAPL.csv?auth_code=XXXX

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Too hard?

Quandl

Quandl | Search for data | Platform | Help | 2 | quantcon2015

Apple Inc (AAPL) Stock Prices, Dividends and Splits

FROM THE DATABASE:

End of Day US Stock Prices
(8,524 datasets)

PREMIUM

2 OF **150** PREVIEWS USED

View Database Pricing

REFRESHED

3 hours ago, on 13 Mar 2015

FREQUENCY

Daily

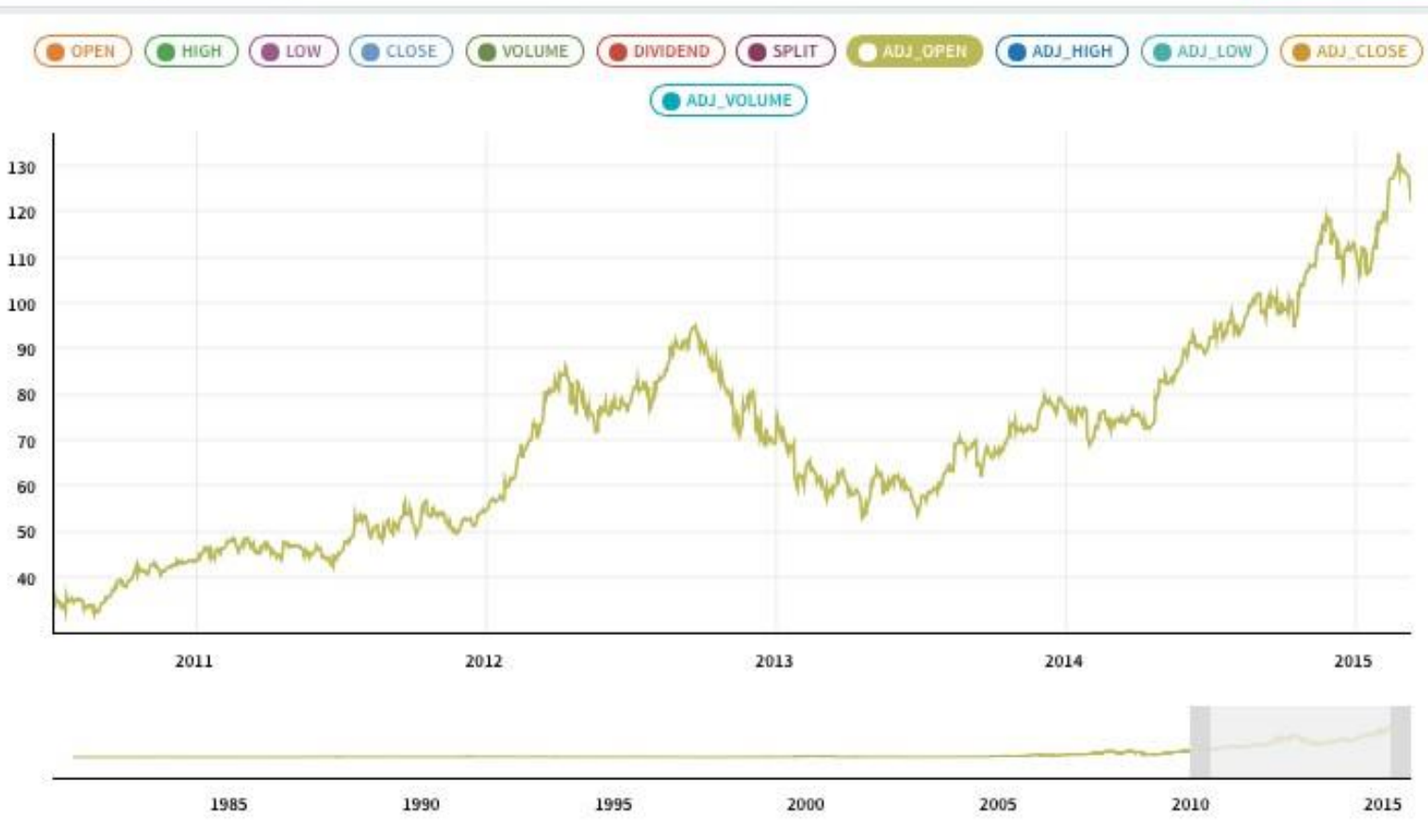
DESCRIPTION

Ticker: AAPL

Exchange: NASDAQ

Prices, dividends, splits for Apple Inc (AAPL).

☆ Favourite | ⚠ Report | Download



Quandl Code
EOD/AAPL

EXPORT DATA

API
JSON | CSV | XML

Libraries
Python | R | Matlab | +

Tools
Excel | Plotly | TradingView | Statwing

RELATED DATA COLLECTIONS

Canada - Economy Data

RELATED DATASETS

APPLE INC (AAPL): Quarterly Sales Revenue Net

Apple Inc. (AAPL) - Revenues

Apple Inc. (AAPL) - Market Debt to Equity Ratio

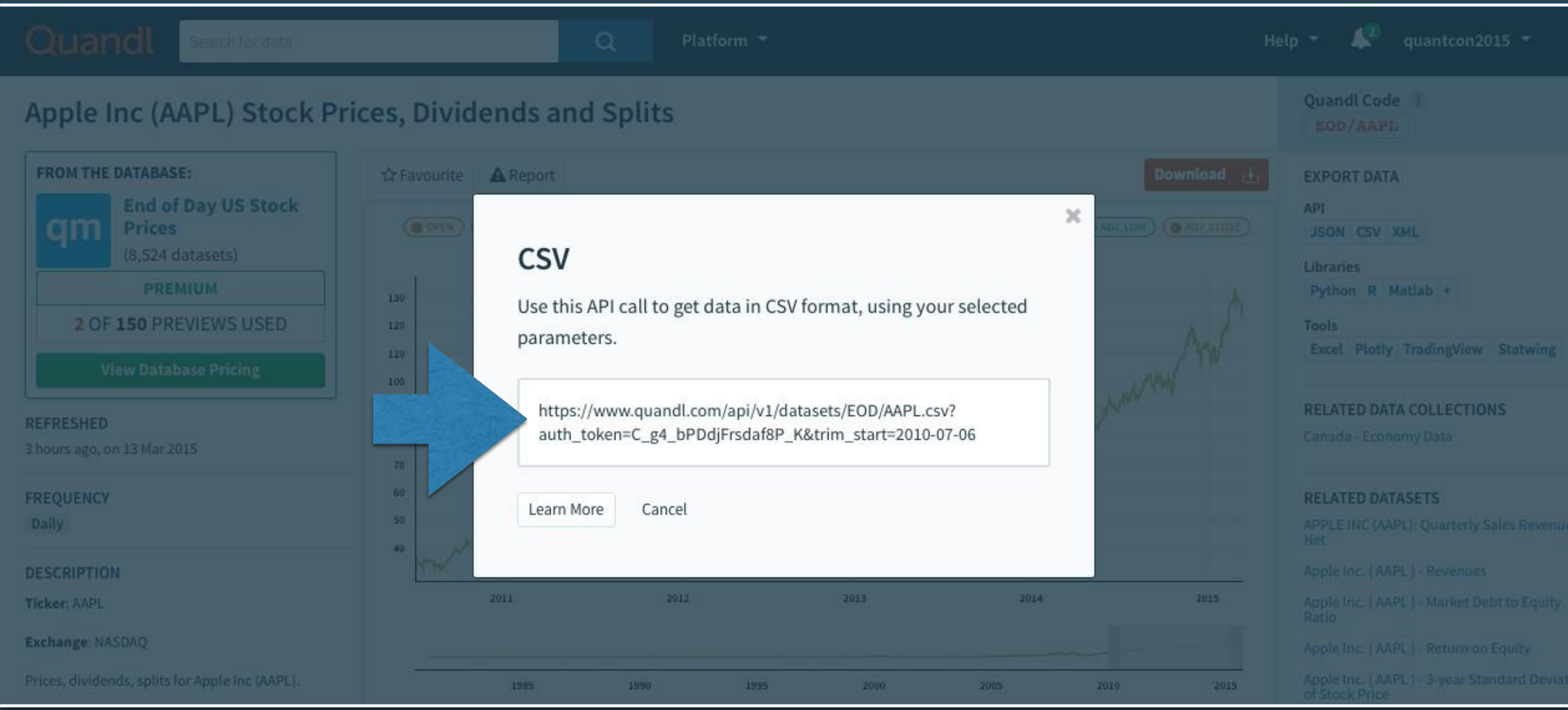
Apple Inc. (AAPL) - Return on Equity

Apple Inc. (AAPL) - 3-year Standard Deviat of Stock Price

Quandl

Getting the CSV URL

Quandl


Quandl
Search for data
Platform
Help
quantcon2015
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3 hours ago, on 13 Mar 2015
FREQUENCY
Daily
DESCRIPTION
Ticker: AAPL
Exchange: NASDAQ
Prices, dividends, splits for Apple Inc (AAPL).
Favourite
Report
Download
CSV
Use this API call to get data in CSV format, using your selected parameters.
https://www.quandl.com/api/v1/datasets/EOD/AAPL.csv?auth_token=C_g4_bPDdjFrsdaf8P_K&trim_start=2010-07-06
Learn More
Cancel
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Getting Python code

Quandl

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Apple Inc (AAPL) Stock Prices, Dividends and Splits

FROM THE DATABASE:

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(8,524 datasets)

PREMIUM

2 OF 150 PREVIEWS USED

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3 hours ago, on 13 Mar 2015

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Daily

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Ticker: AAPL

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Prices, dividends, splits for Apple Inc (AAPL).

☆ Favourite | Report | Download

OPEN | ADJ. LOW | ADJ. CLOSE

130 120 110 100 90 80 70 60 50 40

2011 2012 2013 2014 2015

1985 1990 1995 2000 2005 2010 2015

Python

This code assumes you have installed the Quandl Python Package

```
Quandl.get("EOD/AAPL", authtoken="C_g4_bPDdjFrsdaf8P_K",
trim_start="2010-07-06")
```

Learn More | Cancel

Quandl Code
EOD/AAPL

EXPORT DATA

API
JSON CSV XML

Libraries
Python R Matlab +

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Free previews

Quandl

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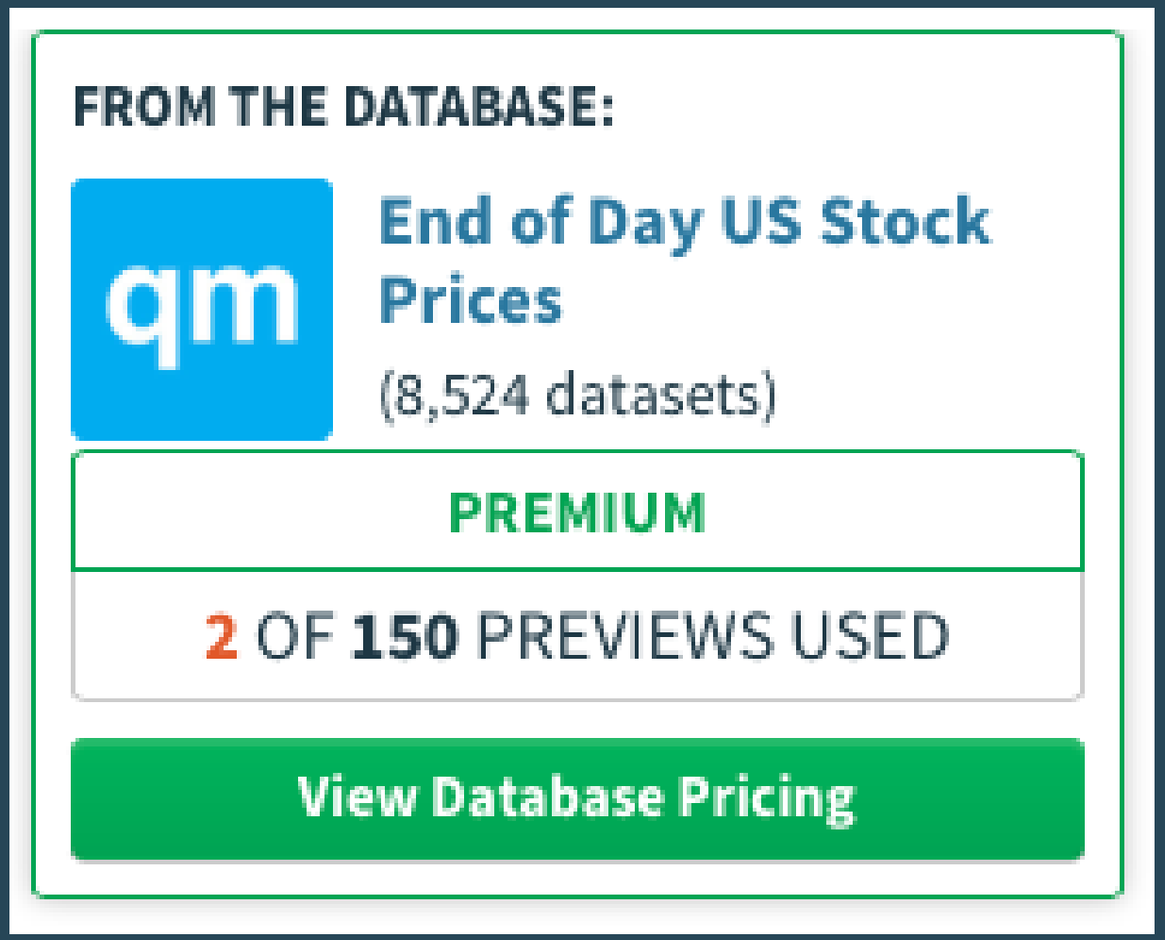

Quandl

Hackathon

Quandl

Quantopian

```
import pandas as pd
import numpy ad np

def initialize(context):
    auth_code = 'C_g4_bPDdjFrsdaf8P_K'
    database = 'ZES'
    dataset = 'AAPL'
    url = 'https://quandl.com/api/v1/datasets/{0}/{1}.csv?auth_code={2}'  url =
    url.format(database, dataset, auth_code)
    fetch_csv(url,
        date_column='DATE',
        symbol=dataset,
        date_format='%Y-%m-
        %d',
        post_func=post_func)
# ffill: propagate last valid          observation    forward   to next    valid
def post_func(df):
    return df.fillna(method='ffill')


def handle_data(context,      data):
    if 'EPS_PCT_DIFF_SURP'    in data['AAPL']
        if data['AAPL']['EPS_PCT_DIFF_SURP']       > 20
            # do something
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Quandl

Useful Docs:

quandl.com/help/python

quandl.com/help/quantopian

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