**Alpha Vantage API**

The program calls the data from Yahoo Finance. In case you encounter errors, you may switch to use Alpha Vantage API. To do so, follow the following steps:

1. Register on their website and get a free API key.

Sign up for a free API key at <https://www.alphavantage.co/support/#api-key>

Copy it, preferably save it in a file for later use. Next you have to install

2. Install Alpha Vantage library

pip3 install alpha\_vantage

Note: If you get an error after issuing the above command, it may be due to recent changes in Raspberry Pi OS that restrict direct pip installations to maintain system stability. Please Google by entering the error message and you will get multiple solutions to address it. Most likely you may have to use a virtual environment or break the existing environment (I simply followed the later)

Next, Replace the get\_stock\_data() function in stock\_ticker.py with:

**from** alpha\_vantage.timeseries **import** TimeSeries

*# Comment out or remove the yfinance import*

*# Add this at the top of the file*

API\_KEY = "YOUR\_ALPHA\_VANTAGE\_API\_KEY"

**def** get\_stock\_data(symbol):

ts = TimeSeries(key=API\_KEY)

data, \_ = ts.get\_quote\_endpoint(symbol)

**return** {

'symbol': symbol,

'price': float(data['05. price']),

'change': float(data['10. change percent'].strip('%'))

}

Remember to replace "YOUR\_ALPHA\_VANTAGE\_API\_KEY" with your actual API key.