YFinance Dashboard

Description

This Dashboard uses Yahoo ticker symbols for identifying financial securities and fetches the available historical data from Yahoo servers. The downloaded data is returned in the form of a data object wrapping a Pandas DataFrame (Fields: Open, High, Low, Close, Volume).

Features of the Dashboard

- The yfinance data is used to build OHLC (candle stick graph) and Volume graphs.
- Users can select a stock from multiple stocks available.
- Users can select which technical indicator they want to apply.
- Users can select the date range for the data to be displayed on the graphs.

Files

The source code for implementing the Dash/Plotly application is organized into five Python files:

- **Index.py**: the main file.
- **Layout.py**: file that includes all the code related to the front end of the dashboard.
- **AppCallback.py**: file that includes all the code related to the backend of the dashboard.
- **Data.py:** file that includes all methods to fetch the data from yahoo finance API.
- **Indicators.py:** has all the methods/functions that are needed to draw technical indicators on the graphs.

Just by having these five files, we can run a Dash app locally in a browser. For deployment to Heroku, four extra files are needed:

- **requirements.txt**: A file containing a list of Python dependencies for the application
- **Procfile**: A file containing **web: gunicorn index:server**. This says to start a gunicorn server for the app. **index** in the **Procfile** refers to the filename **index.py** while **server** refers to the variable **server** inside the **index.py** file.
- **.gitignore:** list of files that should not be tracked by Git.
- **runtime.txt:** This file simply tells Heroku which Python runtime to use.

Adding More Stocks

1. Open up the **Data.py** file.
2. In **the Data class navigate to self.stocks list.**
3. Just add more stocks to the list.

Running app Locally

1. Download the source code.
2. Create Virtual Environment: **python -m venv env_name**
3. Install dependencies: **pip install -r requirements.txt**
4. Run the **index.py** file.
5. Open the generated link in the browser.

Deploying app to Heroku

1. Download and install the Heroku CLI.
2. If you haven't already, log in to your Heroku account using following command.
    a. heroku login
3. Clone the repository
    a. heroku git:clone -a app_name
    b. cd app_folder_on_your_local_machine
4. Deploy your changes
    a. git add .
    b. git commit -am "make it better"
    c. git push heroku master