STOCK PRICE VIEWING APPLICATION REPORT

NOTE: The project is deployed on Google Cloud and is accessible at following link: https://model-factor-412306.el.r.appspot.com/ to avoid local setup.

NOTE: I have also uploaded a video demo of the project to avoid local setup at the following link: https://www.youtube.com/watch?v=Pm4FdMIJKIE

Github link: https://github.com/kingsneverdie1411/Stocks_App

LOCAL SETUP INSTRUCTIONS:

1) Clone the repository using:
   git clone https://github.com/kingsneverdie1411/Stocks_App.git

2) Navigate to project directory: cd Stocks_App

3) Go through requirements.txt to make sure everything is installed on your local system. The commands are:
   - pip install requests beautifulsoup4
   - pip install mysql-connector-python
   - pip install flask

4) Now we need to set up the MySQL database. Please select a user and create a database "Stocks" with 2 tables "stocks" and "favourites".
   The commands for the same are in the "SQL_Tables.txt" file.

5) Before moving ahead, please make necessary changes in the "database.py" and "api2.py" files to change the user and password for the MySQL database.

```
connection = mysql.connector.connect(
        host='localhost',
        user='neil',
        password='neilhanda',
        database=database_name
```

6) Now let us run script to populate the database using "python3 data_processing.py". Please make sure to pass command line arguments for the same. Use 1 to fetch latest data from website and 2 to select date range for the data (support to fetch all past available data)

7) Now our database has the data and we can run the server using "python3 main.py" and access the web-app at http://127.0.0.1:5000/

HOW TO USE API AND EXAMPLES:

The use of API and examples have been covered in the Video mentioned above. I have implemented a basic User Interface in HTML to make the API calls easier and convenient.

Apart from this, we can also use the API using CURL commands as follows:

- Get Top stocks: We need to pass count as a parameter
  Example: curl http://localhost:5000/top?count=10

- Find Stocks by Name: We need to pass name as a parameter
  Example: curl http://localhost:5000/findstocks?name=affle

- Get stock price history: We need to pass stock code as parameter
  Example: curl http://localhost:5000/stock_history?stock_code=500002

- Add to favourites: Post request and pass data as JSON
  curl -X POST -H "Content-Type: application/json" -d '{"code": "500003"}' http://127.0.0.1:5000/add_to_favourites/

- View favourites: Normal get Request
  Example: curl http://localhost:5000/get_favourites

- Remove from favourites: Stock Code is passed in the URL
  Example: curl -X DELETE http://localhost:5000/remove_from_favourites/500002

- Update Data: Normal get Request that calls the data_processing function
  curl http://localhost:5000/update_data