Homework 6: Server-side Scripting using Python Flask, JSON and Stocks API

Grading Guidelines

Graders will test your homework on Firefox and Chrome.

Total Points: 10

Grading Guidelines:

Search Form (2 points in total)
- The initial web page with proper fields in the search form, along with “Stock Search” header and mandatory fields validation for the search input (0.5 points)
- “Clear” button clears the input textbox and all the search results. (0.5 point)
  - If your page fails to clear the search form or the previous results, 0.5 points will be deducted.
- The “Search” button, the page maintains the previous input values (1 point)
  - If your page fails to maintain the original input value, 0.5 points will be deducted
  - Failure to handle the case when the Tiingo API returns no matching result, 0.5 points will be deducted.

Search Results (9 points in total)
- Display company outlook information tab: (1 point)
  - Showing the company outlook information retrieved and calculated from Web Service in tabular format as described in the homework description (1 point)
    - 1 point will be deducted for every field displaying incorrect value or format.
- Display stock information tab: (1 point)
  - Showing the stock information retrieved and calculated from Web Service in tabular format as described in the homework description (1 point)
    - 0.5 points will be deducted for every field displaying incorrect value or format along with the change symbols.
    - If the change and change percent values are not rounded to two after the decimal point, 0.5 points will be deducted.
- Display the stock quote/volume charts tab: (4 points)
  - Display chart title with correct name and date in correct format (1 point)
    - If the title text is not correct, 0.5 points will be deducted
    - If the title date for stock quote is not correct or not in correct format, 0.5 point will be deducted
  - Display stock price and volume in correct value and format (1 point)
    - If the stock price doesn’t show the correct value, 0.5 points will be deducted.
    - If the stock price interval is not by day, 0.5 points will be deducted.
    - If the area below the stock price series line is not filled with blue gradient color, 0.5 points will be deducted.
If the volume doesn’t show the correct value, **0.5 points** will be deducted.
- If the volume is not shown as the grey column bar, **0.5 points** will be deducted.
- If the volume interval is not by day, **0.5 point** will be deducted.
  - Display zoom level in correct value and format (**2 points**)
    - If the zoom level doesn’t show the correct value or misses any value, **0.25 points** will be deducted for **each value**.
    - If the chart display doesn’t change on change of any of the zoom levels, **2 points** will be deducted.

- **Display the stock news tab:** (**2 points**)
  - Display stock news cards (**2 points**)
    - For each missing data in the card, **0.25 points** will be deducted with a maximum of **0.5 points**.
    - The styling and structure of the card should be similar to the reference video; **0.5 points** will be deducted otherwise.
    - Displaying an incorrect number of articles will result in a **0.5 points** deduction.
    - If the “See Original Post” doesn’t hyperlink to the correct news, **0.5 points** will be deducted.

**IMPORTANT**
- You should not call any APIs directly from JavaScript. Doing this will result in a **4-point** penalty.
- If jQuery is used, **4 points** will be deducted.
- You should implement HW 6 using Python.
- You should implement HW 6 using AWS/GCP/Azure cloud server as described in HW 5. Otherwise, **3 points** will be deducted. This will be verified with an additional link in the Table of exercises, showing a sample API call to your “cloud” service and verifying the corresponding JSON result.

**Source code submission:**
On your course homework page, you **must** update the HW6 link to refer to your new HW 6 home page. Also provide an additional link to one of your cloud query entry points, below the homepage link.