

# Homework 8: Ajax, JSON, Responsive Design and Node.js

## Stock Search

(AJAX/JSON/HTML5/Bootstrap/Angular/Node.js/Cloud Exercise)

## Grading Guidelines

### Total Points: 15

Deduction of points in each category will NOT exceed the total points of the category.

- **Navbar (0.75 points in total)**

- The styling, highlighting and hover effect of the navbar should be similar to the reference video, **0.5 points** will be deducted otherwise.
- The positioning of each element should be as shown in the reference video, **0.25 points** will be deducted otherwise.

- **Footer (0.5 point in total)**

- Footer must stay at the bottom of the page even if the page size is less than 100vh with the appropriate footer sentence, **0.5 points** will be deducted otherwise.

- **Autocomplete (1 point in total)**

- The placeholder value and the auto suggesting values should be displayed similar to the reference video; **1 point** will be deducted otherwise.
- Poor performance of Autosuggest will result in a deduction of **0.25 points**.
- While loading the suggestions, loading spinner must appear, **0.25 points** will be deducted otherwise.

- **Routing (1 point in total)**

- If routes in address bar are not as shown in screenshots and videos, **1 point** will be deducted.

- **Details Route (6 points in total)**

- Add stock to watchlist - **0.25 points**.

- Error Alert must be displayed, if wrong ticker is entered manually by the user in address bar – **0.5 points**.
- Styling of Details Route must be same as shown in video and screenshots, **0.5 points** will be deducted otherwise.
- Auto-fetching the details of the stock every 15 seconds, when market is open – **0.5 points**.
- Color of details according to the change – **0.25 points**.
- Adding and removing a stock from watchlist and buying stock from Details Route should display pop-up message - **0.25 points**.
- Styling of the pop-up should be as shown in the reference video and should auto close after 5 seconds if not closed by user- **0.25 points**.
- **Trading Functionality (1 points)**
  - Disable Buy button inside Modal if input is invalid – **0.5 points**.
  - Total must update based on Quantity entered by the user. – **0.25 points**.
  - Design must be same as shown in video and screenshots – **0.25 points**.
- **Summary Tab (1 point):**
  - Display data according to the market status – **0.25 points**.
  - Color of the chart based on change value – **0.25 points**.
  - Chart must be of the last working day – **0.5 points**.
- **Top News Tab (1.5 points):**
  - Styling of news article cards should be similar to the reference video; **0.25 points** will be deducted otherwise.
  - Modal must open, containing more details as shown in video and screenshots, by clicking on news card. – **0.5 points**.
    - Clicking on more details must load respective news article in new tab – **0.25 points**.
    - The sharing functionality should work as shown for both Facebook and Twitter buttons, **0.5 points** will be deducted otherwise.
    - The styling of the sharing modal should be as shown in the reference video, **0.25 points** will be deducted.
- **Charts Tab (1 points):**
  - Type of chart and its properties must be same as shown in video and screenshots – **1 point**.
- **Watchlist Route (1 point in total)**
  - Clicking the stock card from the watchlist, if any, should redirect to the details route of the stock - **0.25 points**
  - Styling of the watchlist card should be similar to the reference video, **0.5 points** in total.
  - If watchlist is empty, display alert message – **0.25 points**

- Live changes in My Watchlist after removing stock from watchlist by clicking remove button – **0.25 points**.

- **Portfolio Route (2 points in total)**

- Live changes in My Portfolio list after performing Trading functions – **0.5 points**.
- If portfolio is empty, display alert message – **0.25 points**
- **Trading Functionalities (1.5 points)**
  - Disable Buy/Sell button if input is invalid and form shouldn't get submitted. – **1 point**
  - Total must update based on Quantity entered by the user. – **0.25 points**
  - Design must be same as shown in video and screenshots – **0.25 points**

- **Loading Screen (0.75 point in total)**

- The styling and position of the loading spinner should be as shown in the reference video, **0.25 points** will be deducted.
- The loading screen should be present while loading all the routes (except home route ('/')) and loading spinner must be present while loading the suggestions in autocomplete, **0.5 points** will be deducted.

- **Responsive (2 points in total)**

- In the mobile browser, navbar, footer and all routes should be the same as the screenshots provided in the description and the reference video, **1 point** will be deducted otherwise.
- In the mobile browser, all functionalities must work normally, **1 point** will be deducted otherwise.

- **Use of ng-Bootstrap**

- This app should be implemented using ng-bootstrap. Implementations without Bootstrap will result in a **2-point penalty**.

- **Use of highcharts-angular**

- All the charts must be implemented using highcharts-angular package. Implementing without it will result in **2-point penalty**.

- **Use of GAE/AWS/Azure**

- You should implement HW 8 using AWS/GCP/Azure cloud server as described in HW 7. Otherwise, 4 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. This link would guide graders to a page where it displays the JSON data returned by your Node.js

script running on the Google App Engine/Amazon AWS/Azure. Failing to provide a valid link will result in a **4-point penalty**.

- **Additional Requirements**

- The entire assignment is to be implemented using Angular, Node.js, ng-Bootstrap and highcharts-angular. Use of other technologies (unless allowed on Piazza) will result in a **5-point penalty**.
- The use of jQuery will result in a **2-point penalty**.
- All API requests should be made server-side, as outlined in the homework description. Any violation will result in a **3-point penalty**.
- The window should not reload for any kind of data request except the toggle switch. It is a focus on building single-page applications. Refreshing the page will result in a **3-point penalty**.
- The program must work in Chrome and Firefox on desktop, and Safari and Chrome on mobile devices.
- Missing color codes/wrong section anywhere for the badges will result in a **2-point penalty (0.5 for each occurrence)**