

DAR Report

Hubba - Chart and Graph JS

Version 1.1

Prepared By: Development Hell

Class: CECS 491-04

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Github Repository:

<https://github.com/DevelopmentHellaHell/SeniorProject>

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Revision History

| Version | Overview | Date |
|----------------|------------------------------------------------|-------------|
| 1.0 | Initial DAR report | 12/10/2022 |
| 1.1 | Adjudicated client comments for metrics chosen | 12/12/2022 |
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Decision

The following options will be considered as options for the charting system used within the application for visualizing data analytics.

1. **Chart.js version 4.0.1**
 - a. Charting system developed by group of community contributors
2. **d3.js version 7.7.0**
 - a. Charting system developed by Mike Bostock and Jeffrey Heer
3. **Google Charts version 51**
 - a. Charting system developed by Google

Analysis

| Metrics | Chart.js | D3.js | Google Charts |
|----------------------------------------------------------------|---------------------|--------------------------------------|-----------------------|
| Pricing (x 1.0) | Free 1 | Free 1 | Free 1 |
| Available Data Input Types For Chart Creation (x 1.3) | JSON, JS array 2 | JSON, CSV, DSV, Binary, text 2 | Google DataTable 1 |
| Trend Chart Available (x 1.1) | Yes 1 | Yes 1 | Yes 1 |
| Bar Chart Available (x 1.1) | Yes 1 | Yes 1 | Yes 1 |
| Configurable time axis (x 1.1) | Yes 1 | Yes 1 | Yes 1 |
| Combo/Hybrid Chart Configuration (x1.1) | Yes 2 | No 1 | Yes 2 |
| TOTAL (highest number is better) | 9.1 | 8 | 7.8 |

Recommendation

Based on our analytics above, Chart.js is the leading option given our project's needs. In cases of any changes to Chart.js that would affect our implementation, D3.js would be our second best option.

References

Cai, M. (2018, December 31). Charting the waters (pt. 2): A comparison of JavaScript charting libraries. freeCodeCamp. Retrieved December 10, 2022, from <https://www.freecodecamp.org/news/charting-the-waters-pt-2-a-comparison-of-javascript-charting-libraries-96e9fb79b856/>

Chart.js | Chart.js. (n.d.). Retrieved December 10, 2022, from <https://www.chartjs.org/docs/latest/>

Cook, P. (2019, January 22). D3 or Chart.js for data visualization? Create With Data. Retrieved December 10, 2022, from <https://www.createwithdata.com/d3js-or-chartjs/>

Google. (n.d.). Chart Gallery & charts & google developers. Retrieved December 10, 2022, from <https://developers.google.com/chart/interactive/docs/gallery>