

3rd Progress Meeting

K1763585 – Alessandro Amantini

Project: Grapher.js

A Website to create visual data structures
and algorithms representations.

Progress since last meeting

- Integrated a code editor with text linter to write the Javascript code;
- Code execution highlighting in real time;
- Overcome a fundamental asynchronicity issue with the code highlighting;
- Investigate the literature to find out about know issues and advantages of teaching algorithms using visualisation;
- Starting to integrate D3.js (library for graphical data analyses and representation).

Current issues

- Dealing with timing issue (live speed control and coordination);
- Simplification issue (reduce the boilerplate for the user);
- Lack of knowledge in d3.js.

Next actions

- Add comments to code execution;
- Learn d3.js;
- Add, animate and style sorting;
- Add tests;
- Use a UI Javascript framework to enforce good coding practices;
- Enhance user engagement, possibly with the use of gamification.

References

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- A. Yohannis and Y. Prabowo, "Sort Attack: Visualization and Gamification of Sorting Algorithm Learning," 2015 7th International Conference on Games and Virtual Worlds for Serious Applications (VS-Games), Skovde, 2015, pp. 1-8, doi: 10.1109/VS-GAMES.2015.7295785.
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