Assignment 2

Developing interactive data visualizations in React and D3js

Repository with the application templates and the dataset:

https://github.com/nicolasmedoc/Assignment2

Instructions

Every student will be asked to implement two synchronized visualizations to represent multivariate data from a bike sharing dataset:

- One scatterplot with 2D-Brush interaction to select multiple data objects (see https://d3js.org/d3-brush)
- A second visualization designed by yourself where all data objects are represented and can be selected with 1D or 2D brush interaction

The brush interaction will highlight the selected data objects in the two visualizations simultaneously.

You will reuse the design patterns learned during React and D3Js tutorials:

- data slices and reducers with Redux
- Javascript classes with D3 classes separated from React components for each visualization
- global update pattern in D3 with enter(), exit() or join() functions when appropriate

You will write a short report (2-3 pages max) to describe and justify your visual design:

- by explaining how the visual encoding fits with the data properties and the user tasks
- by discussing the pros and cons of your design choices

Submission (deadline 26/11/2024)

- Commit your code in a repository on your own github account
- Don't forget to make it public
- The application showing the two visualizations will be launched with npm start.
- Put your report (pdf) at the root of your repository

- Put your repository URL on moodle

Rating

30% proper use of design patterns

40% application running with brushing interaction

30% design and justification in the report

Estimated time (12h)

- 2h for the visual design
- 8h for the implementation
- 2h for the report