SHIPYARD
Explore, navigate and summarize data

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https://john-guerra.github.io/Navio/shipyard/

Have you ever wondered how to explore, navigate and summarize large multidimensional datasets in a faster and easier way?
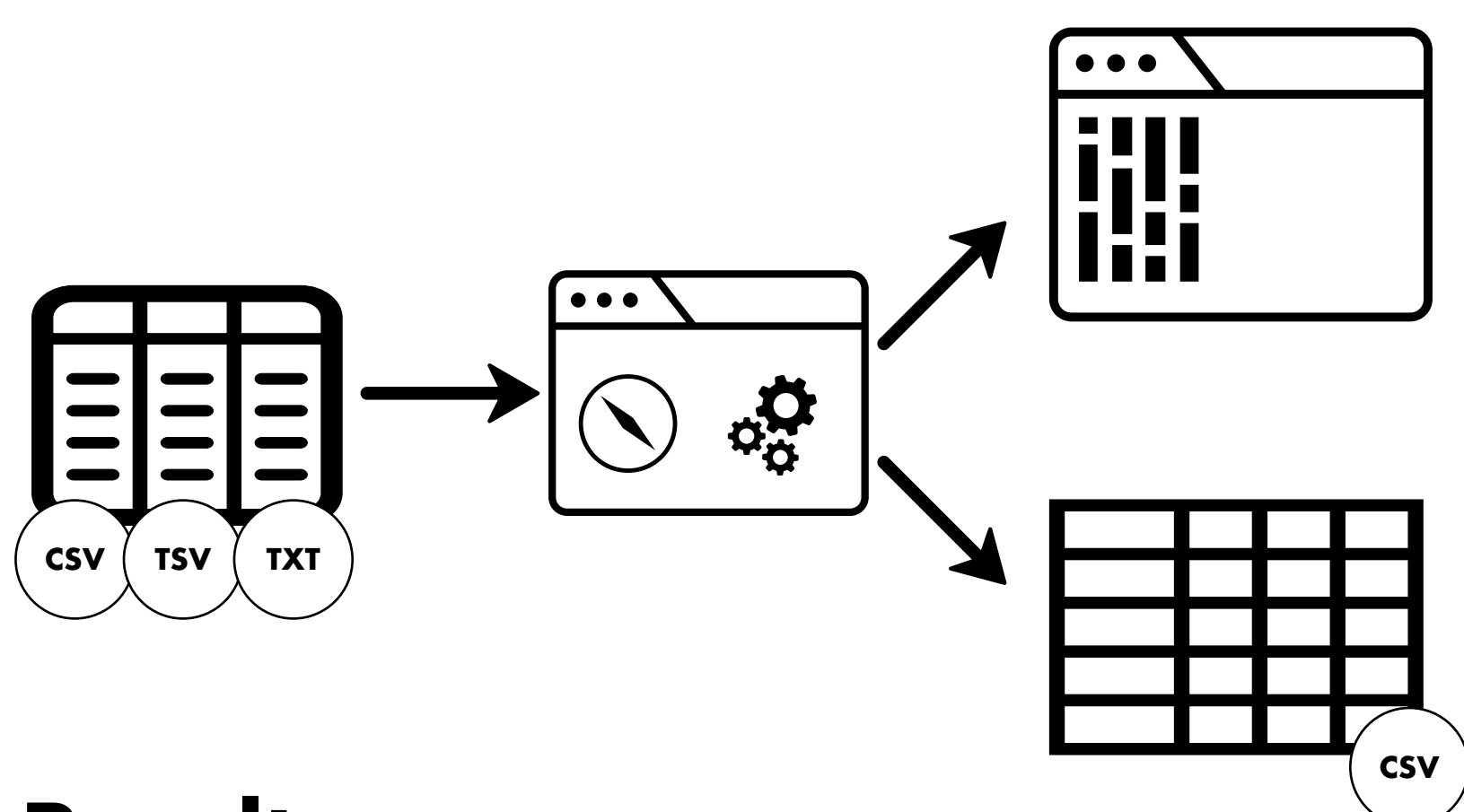
Problem

Exploration, navigation and summarization of large datasets are not trivial tasks. These tasks are usually achieved within a visualization tool or visualizing by yourself programming in languages like Python, JavaScript or R. Both approaches consume time or require visualization design expertise
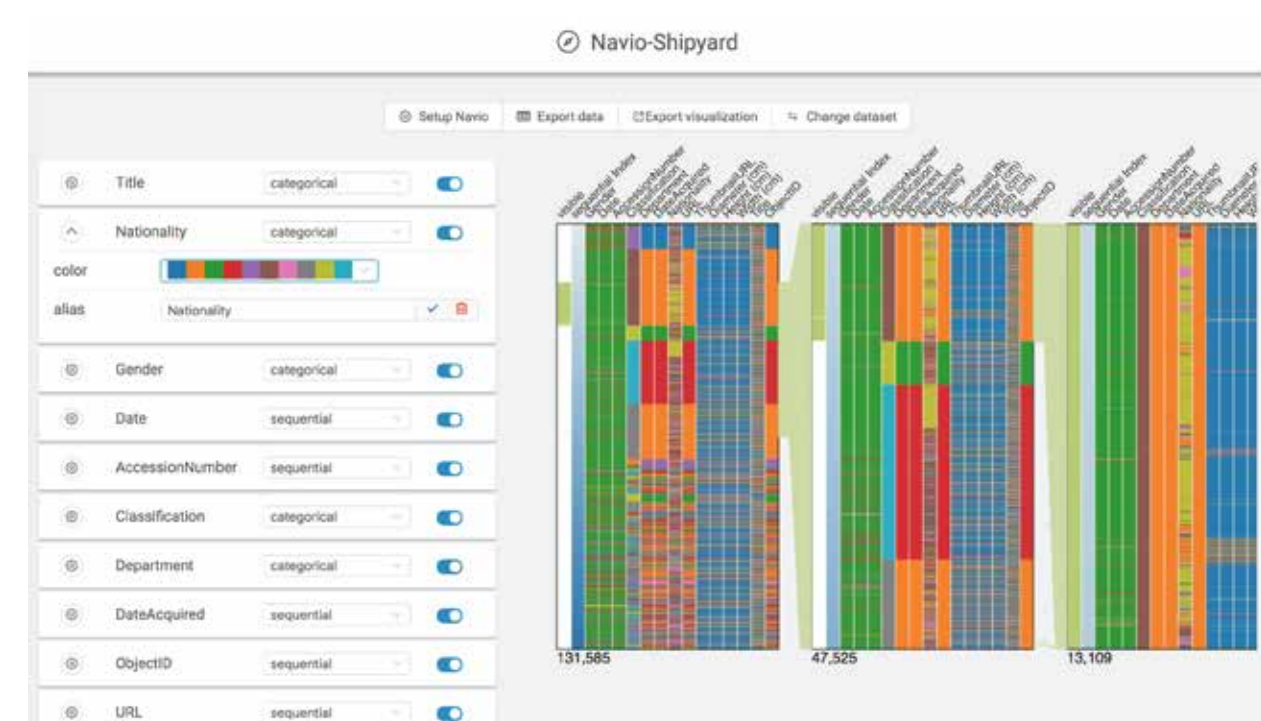
Solution

Shipyard is a web application built with ReactJS and Redux that allows the user to upload, process, explore, summarize and visualize a dataset using Navio and explore an interactive visualization or filtered data without writing a single line of code. This visualization tool receives as input a multidimensional dataset in different formats (CSV, TSV and TXT). After that, the user is able to explore, navigate and summarize the data or set up the widget displayed ordering the attributes, changing their names, colors and type. Finally, the user could export a table with the filtered data and an interactive visualization that runs in the browser.

Visit https://john-guerra.github.io/Navio/shipyard for more information.

Shipyard's interface after uploading a dataset: Shipyard detects the type of data of all the dimensions. In this view, Shipyard enables the user to explore the data inmediatly elaborating complex nested queries. If the user detects an error with the attribute's type or the user wants to set up Navio, the user could click on the set up button and a side component as shown below will be displayed.

Sidebar configuration: In this sidebar component the user is able to order the attributes with a gently drag and drop, set up the color of the attribute, add an alias to any attribute and display or hide the attribute.

Results

The results demonstrated the usability of Shipyard in the process of explore, navigate and summarize large multi-dimensional datasets. Also, they showed some disadvantages of Shipyard related with the browser like the limitation of the data size and the difficulty exploring datasets with 100+ dimensions.