**INTRODUCTION**

We are in the data-driven era where data gets generated at a spontaneous rate ranging from simple academic records to complex network transmission producing data at continuous intervals. According to a journal written by Kale Panoho, he described a study carried out by Deloitte stating that 49 percent of respondents said analyzing datasets helped them make informed decisions, 16 percent said it made key strategic initiatives more efficient, and 10 percent said it improved relationships with customers and peers. It is nevertheless vital to understand how to get the most out of your data if you desire to benefit from it entirely. Given the rate at which data develops, a critical function of visualizing data is to facilitate the analysis and explication, allowing for recognizing and understanding exciting patterns, behaviours, and correlations.

There is still a challenge in creating effective animations, as current tools lack the capability of converting complex data into useful visualizations. Additionally, overly dense representations can cause systems to freeze and even cause systems to crash for specific periods. A possible approach for visualizing real-time data is componentizing animated elements using several different visualizations positioned next to each other. One of such tools that effectively achieved componentizing is declarative languages such as D3.js.

Some programming experts believe that the declarative tool often slows exploration and reuse of designs, but little did they know that the DOM tree modifications make components the most active tool in D3 because they are injectable into newly created elements in the DOM tree. They are called functions and always use “Selection” to indicate where the new elements get added in the DOM tree. Often the selection will be a group (<g>) element as a container for the newly created DOM elements.

https://www.forbes.com/sites/forbesagencycouncil/2019/10/01/the-age-of-analytics-and-the-importance-of-data-quality/?sh=336badfd5c3c