1) **Tableau Public:**

Tableau Public is a data visualization tool. When I first used this tool, I found it very fascinating as it works very well with the Excel and allows for quick and easy re-formatting of charts and visualizations. As a business intelligence tool, I immediately saw its potential. Tableau Public can dig into the existing database and visualize it's data in various formats and many different ways. One of the best feature about the Tableau Public is, user can visualize any kind of complex data very easily by just dragging and dropping the visual components. User can highlight the sections and drilldown into chart without any special skills or assistance of any other third party visualization tool. Tableau Public is fast growing company and becoming more popular for its simplistic design approach and easy to use methodology. Tableau has other major feature of the excellent mobile support. Company has put in a lot of effort into developing a robust mobile client. The mobile client allows user to visualize data by simply dragging and dropping the visual components by touch optimized controls. In addition user doesn't have to take any additional steps to make dashboards. Tableau automatically recognizes if the user is using the mobile app and makes adjustments accordingly. Tableau's customer support has kept pace with its growth.

Tableau integrates with the mot data types and offers dynamic integration with the various big data platforms such as Hadoop. It integrates with R, the business intelligence statistical and advanced analytics. Tableau has vast online resources, tutorials, guides, training and forums. One thing the users should consider if they want to connect Tableau to the database that they have to write the SWL queries to fetch the data from the database and then visualize it. But if they want to load the data from the simple excel or CSV file, then they can easily load the file and can visualize the data efficiently. Tableau has no functionality of the traditional type of reporting. It has no functionality of scheduling or notification of the reports. First when I used the Tableau, I felt amazed by its simplicity and a great tool to visualize the data. I got most of the help from the official website of the Tableau. Tableau is successful company with innovative data visualization tools. Tableau Public is a default demo version of the professional edition. My overall experience with Tableau Public was nice and I learnt lot data visualization techniques using this wonderful tool.

2) **Data Driven Documents:**

D3 is a data driven documents which helps you to bring data to life using HTML, AVG and CSS. For using D3 you'll need to download the d3.js. It is a JavaScript library for manipulating documents based on data. D3 allows you to bind arbitrary data to a Document Object Model (DOM), and then apply data-driven transformations to the document. It is a tool for data visualization in W3C-complaint computing, making use of the widely implemented Scalable Vector Graphics (SVG), JavaScript, HTML5, and Cascading Style Sheets (CSS) standards. JavaScript library uses digital data to drive the creation and control of dynamic and interactive graphical forms which run in web browsers. D3 is extremely fast supporting large datasets and dynamic behaviors for interaction and animation. The JavaScript D3.js library uses pre-built JavaScript functions to select elements, create SVG objects or add transitions. D3.js API contains many of the functions as follows:

- Selections
- Transitions
- Color
- Math
- Arrays
- Scales
- Geometry
- Time
- Layouts
- SVG
- Behaviors

Large datasets can be bound to SVG using D3 functions to generate rich charts and diagram. Data can be in the various format i.e., JSON, CSV or geoJSON and on these data formats we can use the JavaScript function. D3 follows the declarative approach, operating on the nodes called as selections.

For Example:

```
D3.select("body").append("svg").style("backgroundcolor","black");
```
- It will draw the black rectangle in the html file on the browser.