

Tableau

Here's a brief on what Tableau is and how it works as a data visualization software. It documents my points from a one-hour Tableau session under Professor Gaurav Shekhar, UT Dallas.

- Tableau is one of the easiest to use data visualization software.
- It is dependent on the data provided to it by the user.
- It is a deceptive tool because it can make charts and visualization for any data you throw in which might even be wrong. So, you need to be careful with it.
- It is easy to connect to servers in Tableau.
- Dimensions and measures
- Rows and columns play an essential role in Tableau. The minute you know what goes in rows and columns, you can figure out how tableau does visualization.
- Tableau joins all x and y axis to figure out an image or visualization. Every point has an x and a y axis associated to it.
- The factor that the user wants to analyze is put into rows and by what factor the user wants to analyze the data is put into columns.
- 'ABC' is tableau's way of letting the user know that it needs values to produce the data.
- Tableau always aggregates numbers based on categories.
- The right top of the corner has a 'Show Me' option which shows up 24 charts that tableau has the ability to make from the data that has been provided by the user.
- Of the 24 charts, some charts are washed out which means tableau cannot make those charts (maybe because the data is limited) with the data that has been provided.
- Only the charts that are in prominent color can be used for visualization by Tableau. The ones outlined in red color are tableau's suggestion of making the best data visualization chart of the given data.
- In tableau you cannot use one single sheet to make different visualizations or work on various charts or graphs. Multiple sheets need to be used for every different type of data that the user wants to visualize. For creating a new visualization, you need to open a new sheet.
- Dashboard is a group of multiple sheets. For all the different visualizations that have been done in different sheets can be brought together into one single dashboard and displayed together.
- Dashboard gives you the freedom to place your sheets at different locations. It makes it easier to make a choice of how the data has to be shown or visualized on one screen.

- Features:
The feature 'marks' allows the formatting of data with different details.
The feature 'filter data' can be used to filter the data as per the modifications and requirements of the users.
The feature 'map layers' can be used to clean the data.
The feature 'action' allows to make changes to the dashboard by filtering data.
- There are two options in Tableau to save the data :
As a 'twb' file which is just the worksheet without data.
As a 'twbx' file which is a package that comes with the data.
- It is advised to save the file as a twbx public so that you have an online profile where you can publish your data.
- We can make animations in tableau by using Pages.
- Tableau prep is used for cleaning data. Data needs to be organized and clean before using it into tableau visualization.