Tittle: Perform the following data visualization operation using Tableau on Adult and Iris datasets.

Objective:
1. To understand and apply the analytical concept of big data using Tableau
2. To study detailed concept of Tableau.

Software requirements:
1. Ubuntu 14.04 / 14.10
2. GNU C Compiler.
3. Hadoop
4. Java
5. Tableau.

Problem Statement:
Perform the following data visualization operations using tableau on adult and Iris datasets.
1) 1D (Linear) Data Visualization.
2) 2D (Planar) Data Visualization.
3) 3D (Volumetric) Data Visualization
4) Temporal data visualization
5) Multidimensional Data Visualization
6) Tree / Hierarchical Data Visualization
7) Network Data Visualization.

Theory:

Tableau:

It is a Business Intelligence tool for visually analyzing the data. Users can create and distribute an interactive and shareable dashboard, which depict the trends, variations, and density of the data in the form of graphs and charts. Tableau can connect to files, relational & Big data sources to acquire and process data.

Tableau Features:

Tableau provides solutions for all kinds of industries, departments and data environments. Following are more features -

- Speed of Analysis - As it does not require high level of programming expertise, any user with access to data can start using it to derive value from the data.
- Self-reliant - Tableau does not need a complex software setup. The desktop version which is used by most users is easily installed and contains all the features needed to start and complete data analysis.
- Visual Discovery - The user explores and analyzes the data by using visual tools like colors, trend lines, charts, and graphs.
- Blend Diverse Data sets - Tableau allows you to blend different relational, semi structured and raw data sources in real time without expensive up front integration costs.
- Architecture Agnostic - Tableau works in all kinds of devices where data flows. hence the user need not worry about specific software or hardware req. to use tableau

There are three basic steps involved in creating any Tableau data analysis report.
These three steps are -

- Connect to a data source - It involves locating the data and using an appropriate type of connection to read the data.
- Choose dimensions and measures - This involves selecting the req. columns from the source data for analysis.
- Apply visualization technique - This involves applying req. visualization methods, such as a specific chart or graph type to the data being analyzed.

Conclusion:
Thus, we have learnt how to visualize the data in different types as specified by using Tableau Software