Lab assignment 5

Group B

→ Title : Perform the following data visualization operations using Tableau on adult and iris datasets.

→ Objective :

a) To understand and apply the analytical concepts of big data using Tableau.

b) To study detailed concepts of Tableau.

→ Software requirements :

a) Ubuntu 14.04 / 14.10

b) GNU compiler

c) Hadoop

d) Java

e) Tableau

→ Problem statement : Perform the following data visualization operations using tableau on adult and iris dataset

a) 1D (Linear data visualization)

b) 2D (Planar data visualization)

c) 3D (Volumetric data visualization)

d) Temporal data visualization

e) Multidimensional data visualization

f) Tree or hierarchical data visualization

g) Network data visualization

→ Theory :

a) Introduction to Tableau -

- Tableau is a business intelligence tool for visually analyzing the data.
- Users can create and distribute an interactive and shareable dashboard, which depicts the trends, variations and density of data in form of graphs and charts.
- Tableau can connect to files, relational and big data sources to acquire and process data.

Features of Tableau -

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

a) Speed of analysis :

As it does not require any high level of programming expertise, any user with access to data can start using it to derive value from the data.

b) Self - reliant :

Tableau does not need a computer 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.

c) Visual discovery :

The user explores and analyses data by using visual tools like colors, trendlines, charts and graphs.

d) Blend diverse data sets :

Tableau allows you labled different relational, semi-structured and raw data source in real time without expensive and upfront integration costs.

e) Architecture agnostic:

Tableau works in all kinds of devices where data flows hence the user need not worry about specific software or hardware required to use the software.

Steps for creating any Tableau data analysis report -

1) Connect to a data source:

It involves loading data and using an appropriate type of connection to read the data.

2) Choose dimensions and measures:

This involves selecting the required columns from the source data for analysis, visualization methods such as a specific chart or graph to the data being analyzed.

→ Conclusion: Thus, we have learnt and implemented various types of data visualization methods specified by Tableau software.