

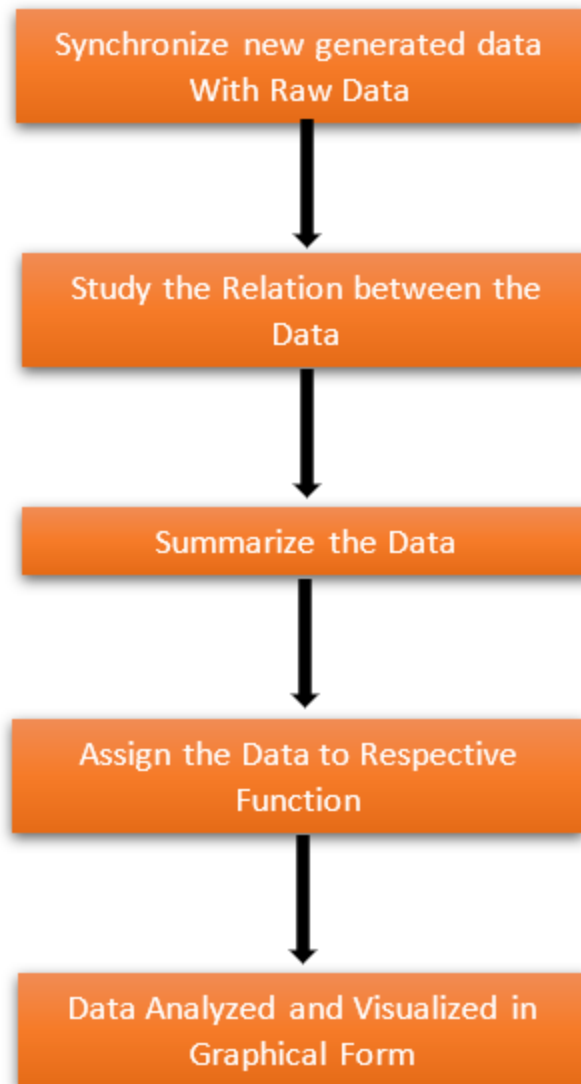
REPORT

Introduction:

This project deals with the representation of Data regarding Horticulture about the Area and Production of Fruits in the year 2009-10 & 2010-11. Horticulture is the art of cultivating plants in gardens to produce food and medicinal ingredients, or for comfort and ornamental purposes. Horticulturists grow flowers, fruits and nuts, vegetables and herbs, as well as ornamental trees and lawns .

Data visualization gives us a clear idea of what the information means by giving it visual context through maps or graphs. This makes the data more natural for the human mind to comprehend and therefore makes it easier to identify trends, patterns, and outliers within large data sets.

Flow-Chart:



Experimental Investigations:

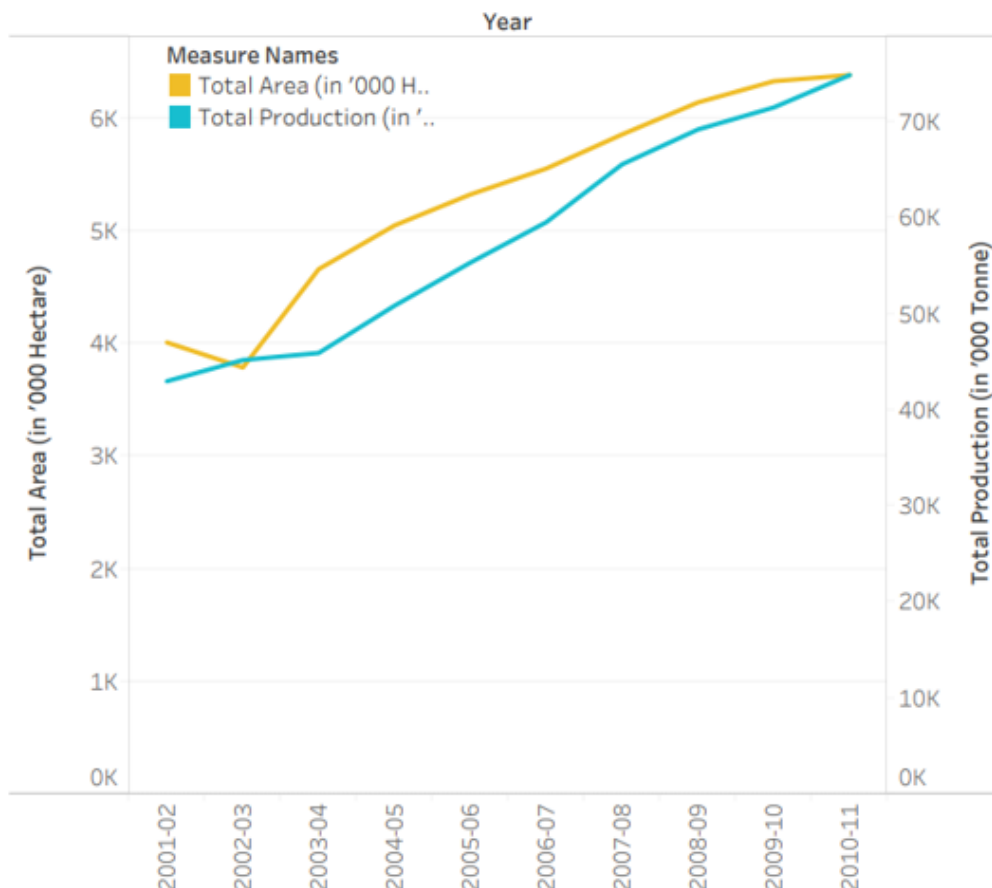
The described technological framework is functional and have a potential to visualize various types of data by using appropriate approach. Tableau is the new emerging software which brings a Revolution in the Work of Visualizations and Analysis. Different range of Graphs can easily explain the Data in an intelligible manner, This provides a very clear form of communication allowing business leaders to interpret and act upon their information more rapidly. Data visualization tools can provide real-time information that's easier for stakeholders to evaluate across the enterprise. Faster responses to market changes and quick identification of new opportunities is a competitive advantage in any industry.

Result:

This application is compared with Microsoft Excel which has the same functionality of visualising data. A similar dataset is used to create graph visuals in Excel and Tableau application. The results are then studied and compared. The Tableau outcome indicates the correct implementation of data visualisation methods and shows that the application can perfectly replicate the function of existing visualisation tools, such as Microsoft Excel. Furthermore, this application can replace existing tools and provide better visualisation

Sample picture of Work

Fruits Total Area & Production in India (2001-11)



Advantages & Disadvantages:

Advantages:

Better understanding. Easy sharing of information. Accurate analysis. Sales analysis. Finding relations between events. Modification of data. Exploring opportunities and trends.

Disadvantages:

It gives estimation not accuracy. Biased. Lack of assistance. Improper design issue. Wrong focused people can skip core messages.

Applications:

Some of the applications of Data Visualization are;

- 1)Banking
- 2)Government
- 3)Insurance
- 4)Health Care
- 5)Transportation
- 6)Capital Market
- 7)Asset Management.

Future Scope:

Data visualization is entering a new era. Emerging sources of intelligence, theoretical developments and advances in multidimensional imaging are reshaping the potential value that analytics and insights can provide, with visualization playing a key role. The principles of effective data visualization won't change. However, next gen technologies and evolving cognitive frameworks are opening new horizons, moving data visualization from art to science. Many charts these days are starting to get there. In the past we'd have static charts that were created by the "analytics" guy and he choose to visualize what he/she thought was important. Now, we are starting to see more interaction with filters and such allowing the end user to customize to some degree. In the future, I expect not only filtering but being able to drill down into specific points of interest with little technical know-how. This brings me to the 2nd point which is the creation of more tools for people with less technical know-how to create stunning visualizations. I think Tableau is the leader of this part right now.

Conclusion:

The massive amount of farming data requires precise methods and tools to obtain correct analysis results. The method presented in this paper is data visualisation which aims to help farmers or farm managers gain a better understanding of farming data. The application developed can perfectly replicate the function of existing visualisation tools, such as Tableau. By visualisation, this application can help in reducing the work load in the farm data management process. Using the graph created, farmers can gain a better understanding of the relation between data. Farmers can also use graph visualisation to make a prediction, e.g. fuel consumption of a tractor for the coming week. This process can help increase the productivity and work quality of farmers. An increase in productivity can ultimately help boost the economy of the country.

Bibliography:

1. www.data.gov.in

Software Used: