

Data Visualization – Class 1 DS Bootcamp C3

Data is growing day by day and to understand the data we need to see the data in charts, dashboard etc. Tableau and Power BI are the market leaders, and it helps to tell a story to the end user about the data.

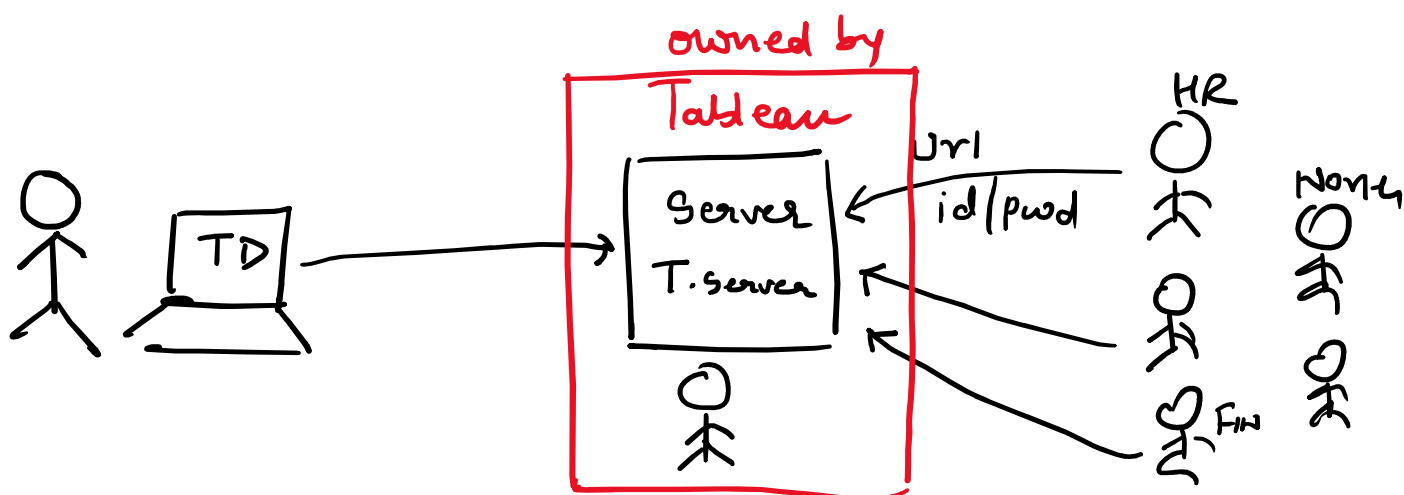
Tableau is acquired by Salesforce

To create the data visualizations

- **Tableau Public – Free Software**
 - We cannot connect to databases i.e. We cannot connect to databases like MySQL, Oracle and so on..
 - We can only connect to file systems excel file, CSV files and so on..
 - When we create some data visuals in Tableau Public we cannot save the visual in the local machine, it will get saved in the public server. We cannot use the client's data.
 - We cannot integrate with R and Python
 - We cannot create extracts
 - <https://public-pantheon.tableau.com>
- **Tableau Desktop - \$70 per user per month**
 - No limitations in this software
 - <https://www.tableau.com/academic/students#form>

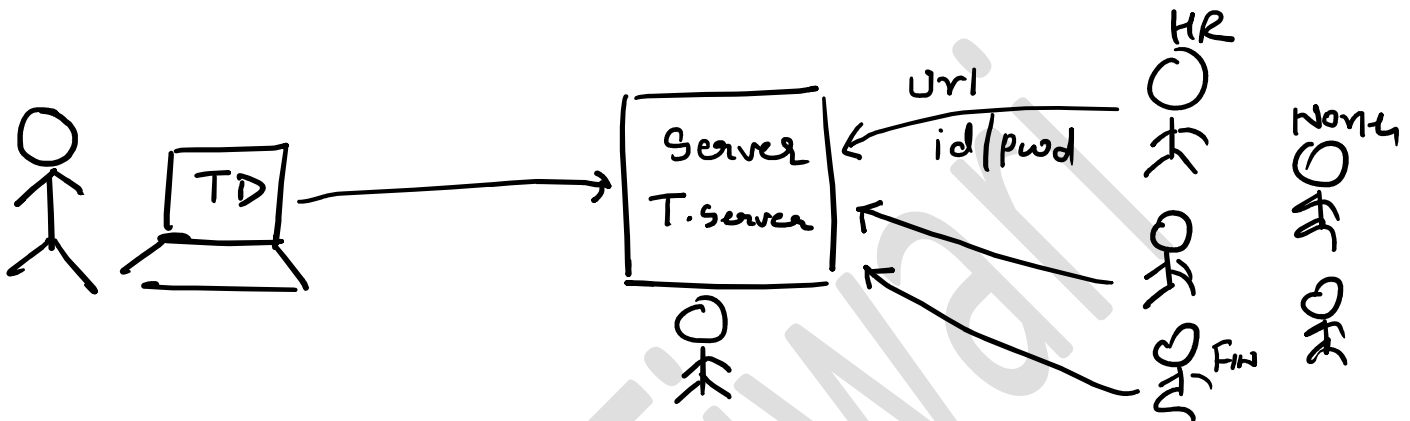
How to collaborate with the larger audiences

- **Tableau Reader** – Only read the data, see the visuals, we can apply the filter as well
 - This solution is good when the company size is small
 - Tableau read is not a scalable solution – Security is a concern, managing the groups will be difficult
- **Tableau Cloud – Tableau Online**
 - Good for mid size companies
 - It is exactly the same as Tableau Server, the only difference is Tableau Server, The machine where Tableau Server is installed and The employee who is taking care of Tableau Server are not owned by you, owned by Tableau



- **Tableau Server – It is a software**

- It's a cost so good for the big size companies
 - We have to purchase the Tableau Server
 - We have to buy a server as well where we will install Tableau Server
 - One employee who can manage the server where Tableau server is installed
- The user will get the URL and credentials and he/she can login and see the desired reports



- **Tableau Prep – It is used for the data preparation**

- There is a raw data and we need to clean that
- Tableau Prep is some kind of ETL tool, E - Extract T – Transformation L – Load
- The same Tableau Desktop Student's license you can use in Tableau Prep also

- **Tableau Mobile – Android and iOS**

- Reporting on the go
- You should have access to either Tableau Online or Tableau Server

When we are connecting to the CSV files with Tableau it can be only connected to Tableau as a **text file**

In Tableau there are 5 major datatypes

- Date/Datetime
- String
- Numbers - Integer or Decimals
- Boolean
- Geographical Dimension

Filter

Data Source Filter

Filtered Central data

All the CSV files in the folder

These are the column details

Type	Field Name	Physical Table	Remote Field ...
Order Date	Order Date	OfficeSupplies.csv	OrderDate
Region	Region	OfficeSupplies.csv	Region
First Name	First Name	OfficeSupplies.csv	First Name
Last Name	Last Name	OfficeSupplies.csv	Last Name
Item	Item	OfficeSupplies.csv	Item
Units	Units	OfficeSupplies.csv	Units
Unit Cost	Unit Cost	OfficeSupplies.csv	Unit Cost

We can do some basic analytics as well

Here we can add the fields

Pages - To do the animations in Tableau

Filter - To filter the relevant data

Count field automatically created by Tableau

It gives the source count

Tableau Generates 24 charts

Select or drag data

Use the Shift or Ctrl key to select multiple fields

We can create any number of sheets

This sign will help to create more sheets

Helps to create the dashboards

Helps to create the story

Calculated field – In this we can write the logics



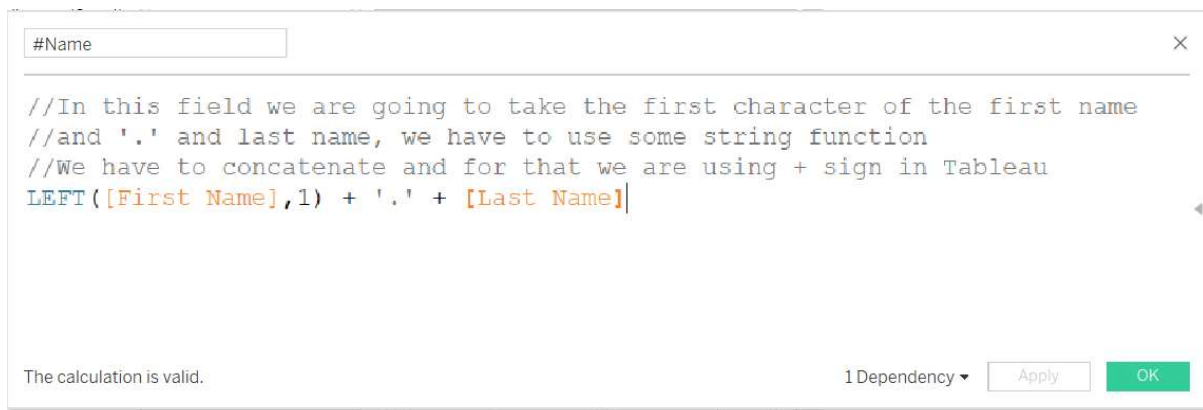


Tableau is automatically categorized the dimension and measure.

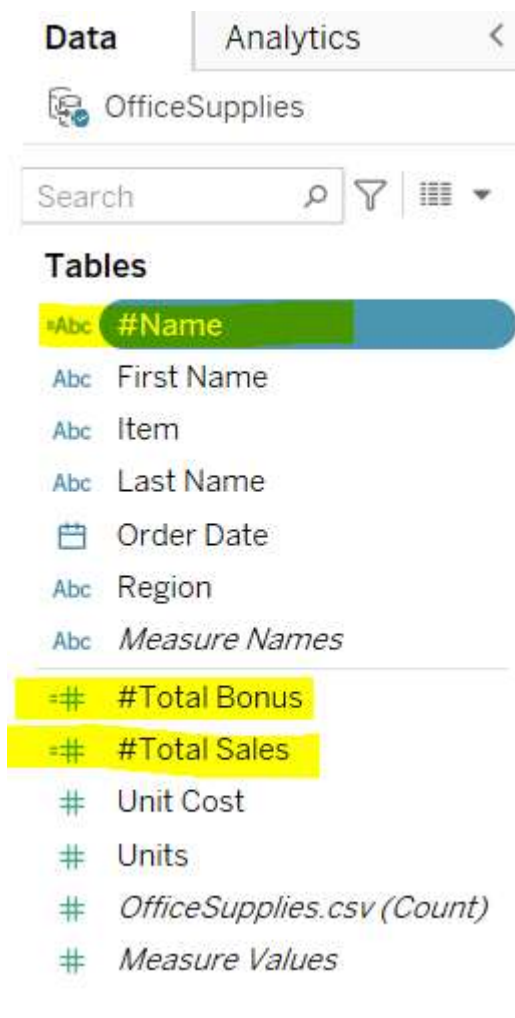
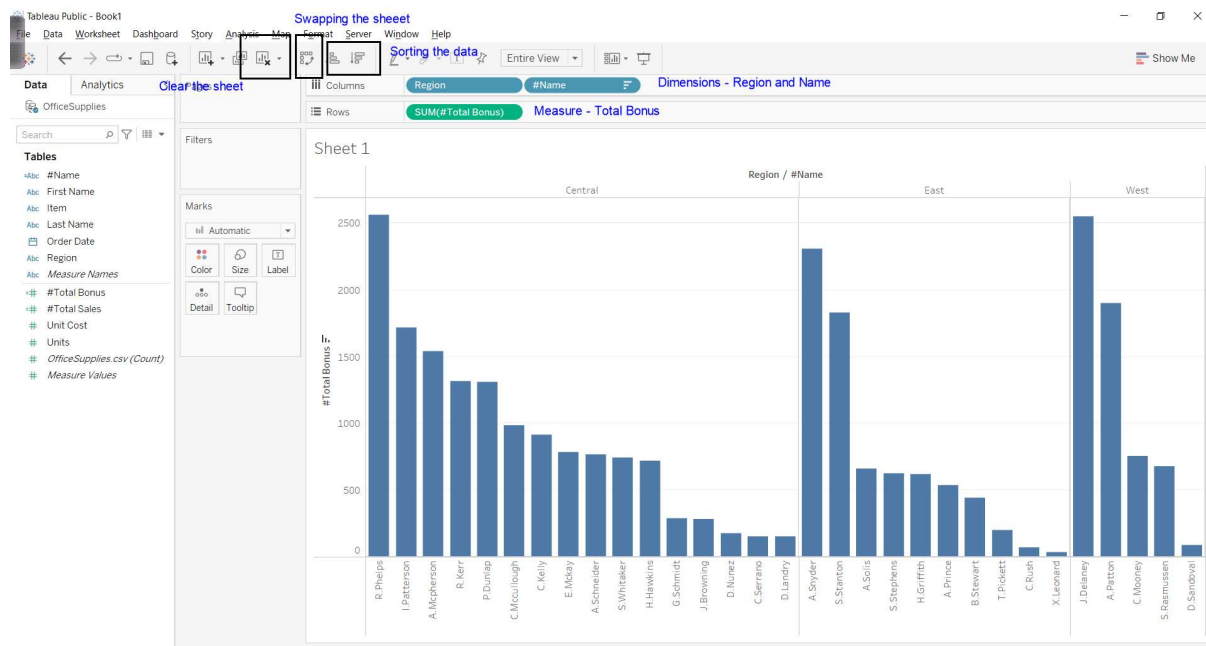
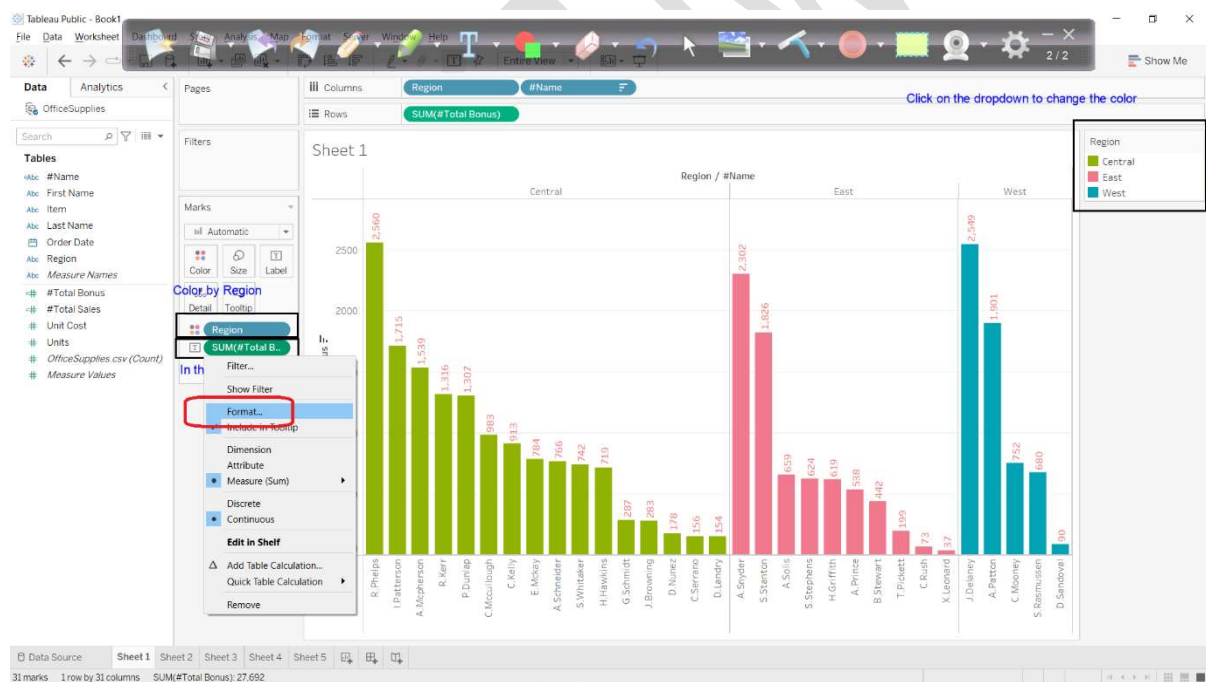
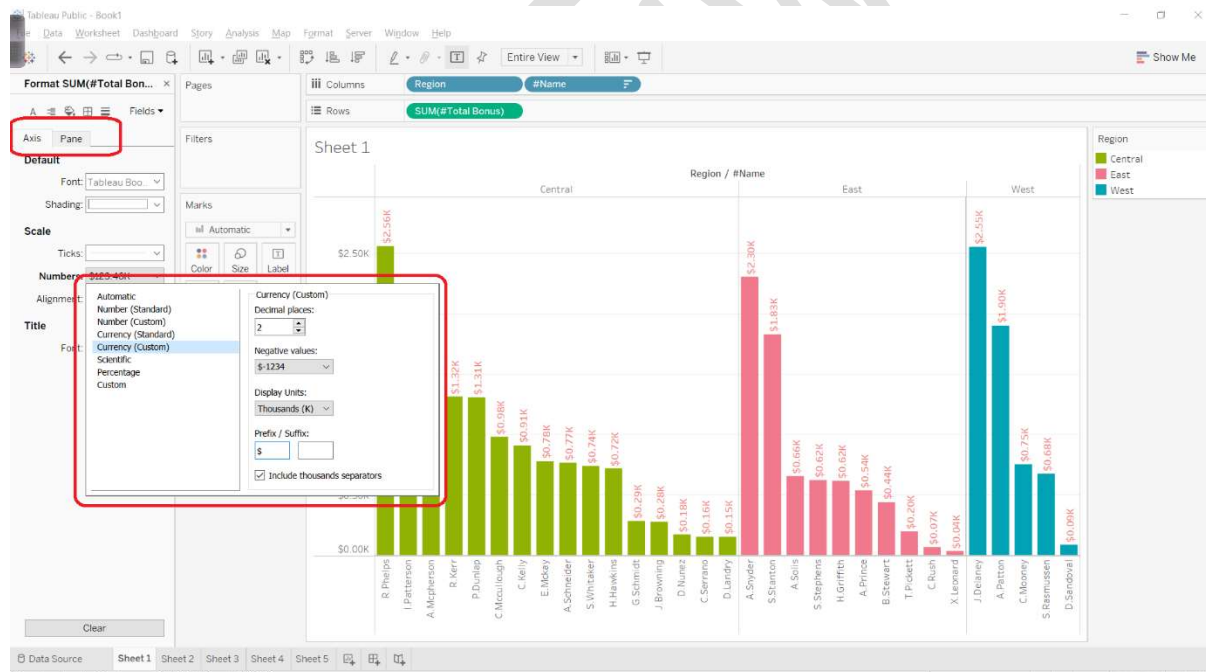
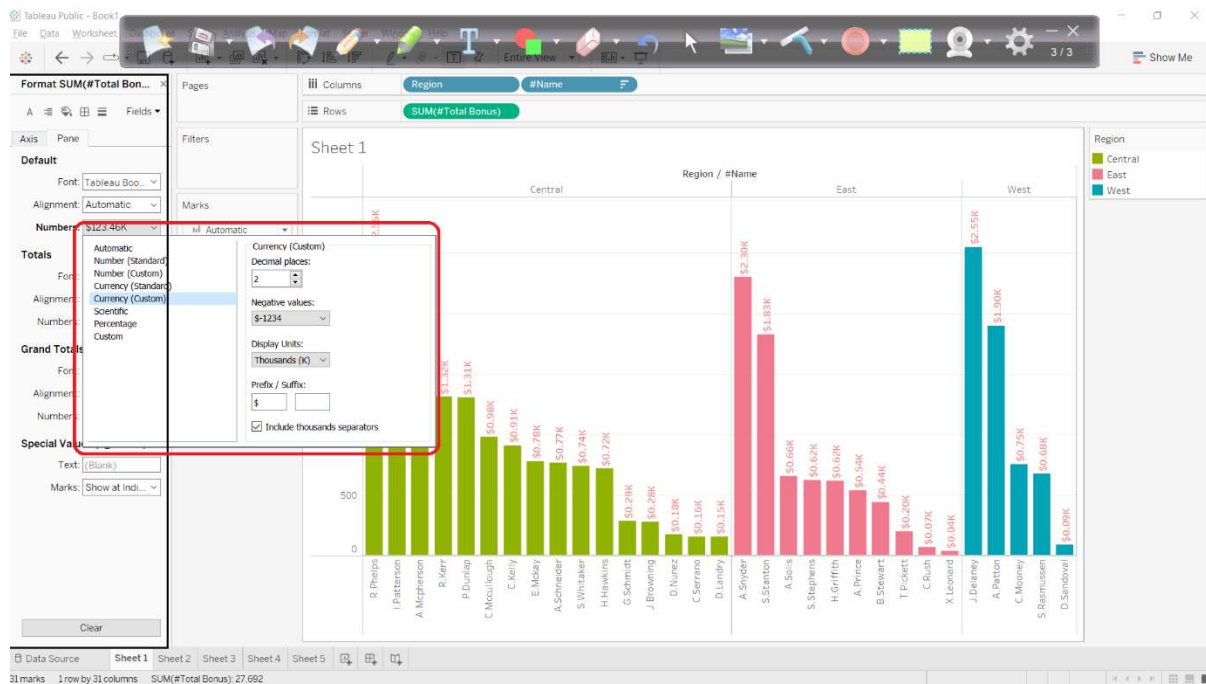


Chart as per the business requirements



Formatting





How to save the file in Public

