

# TOPIC: “Open Source Data Visualization”



**PRESENTED**

**BY**

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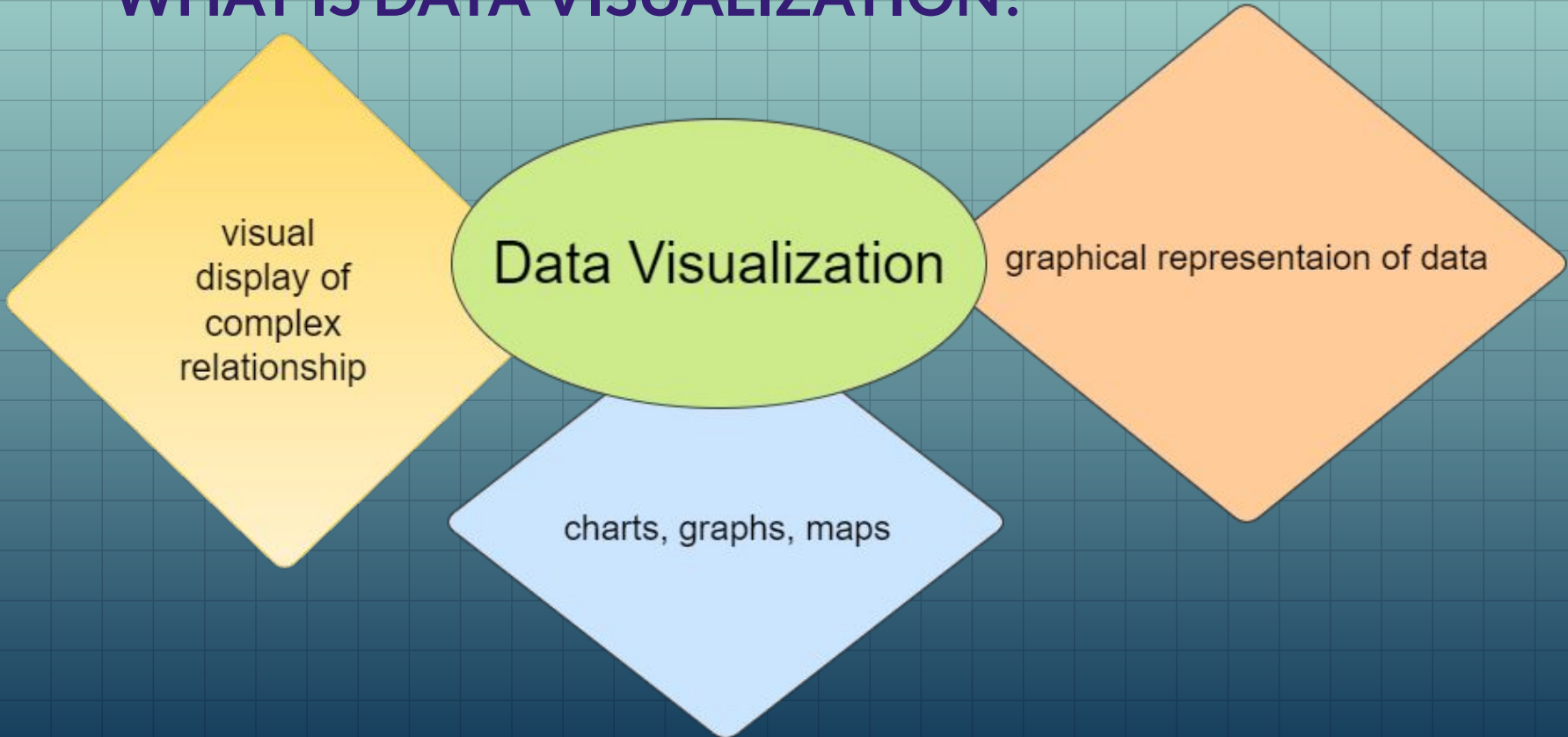
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# WHAT IS DATA VISUALIZATION?





# Purpose Of Data Visualization

- Data visualization is essential to analyze massive amounts of information and make data driven decisions.
- Management also applies it to convey organizational structure and hierarchy.
- Data Analysts and Scientists study and explain the trends and pattern.



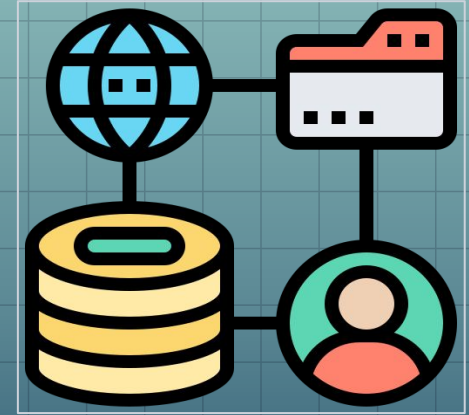
# Why Data Visualization?



Analysis of data

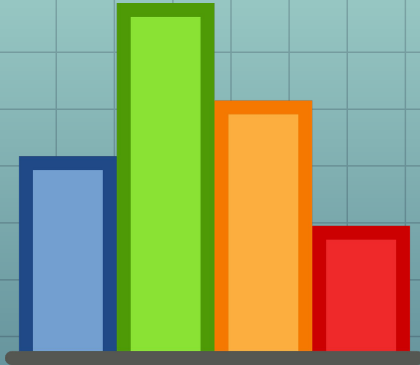


Faster Decision  
making



Make sense of  
complicated data

# Types Of Data Visualization



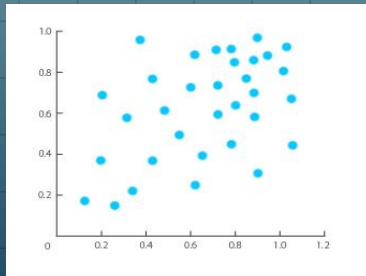
Charts



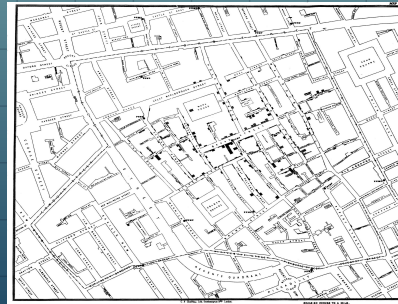
Table



Dashboards



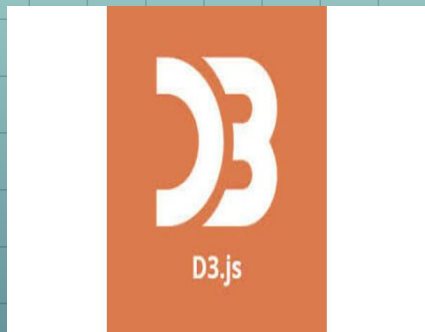
Scattered plot



Maps



# Open Source Data Visualization Tools



D3.js



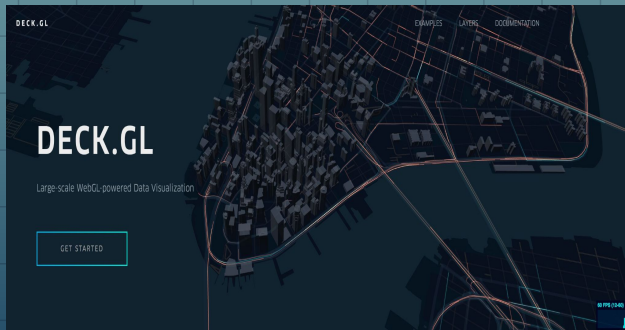
ECharts



Vega



Power BI



deck.gl



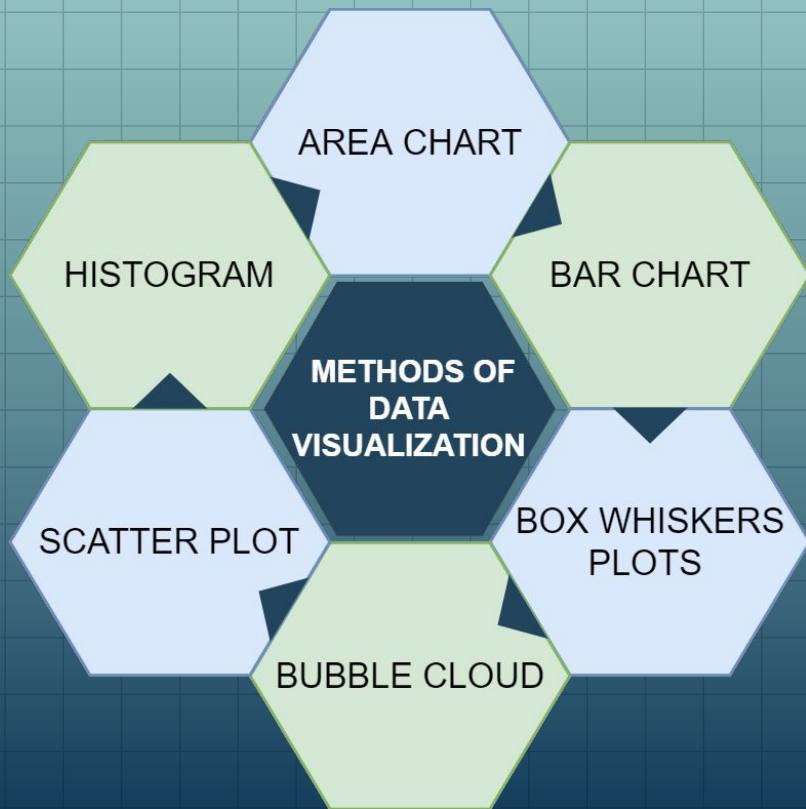
# Open Source Data Visualization Tools

**Open source libraries provide a way for analysts to present data in an interactive way.**

- **D3.js:**  
It is a javascript library producing dynamic, interactive visualization in web browsers
- **ECharts:**  
A charting library which offers an easy way to add highly interactive and customizable charts.
- **Vega:**  
provides support to customize visualization across large dataset which are accessible from web.
- **deck.gl:**  
A framework, which is used for exploratory data.



## Some Specific Methods Of Data Visualization.







# HOW IT WORKS?

Client/User





## PROBLEM STATEMENT

“ We have a client who wants to set up his own restaurant in Bangalore city. He wants to know how it can be profitable to him by setting up the restaurant.”



## SOLUTION:

We visualized the given dataset and analyzed the different restaurant's ratings, total votes given, average bill for two people, availability of facilities like online\_ordering, table\_booking and we tried to build a dashboard so that our client can get clear idea about setting up his restaurant.



# REQUIREMENTS

- Tool Used: Power BI
- Dataset Used: Zomato.csv file from Kaggle Website



# Power BI

- Power BI is a Business Intelligence and Data Visualization tool for converting data from various data sources into interactive dashboards and analysis reports.
- Power BI offers cloud-based services for interactive visualizations with a simple interface for end users to create their own reports and dashboards.

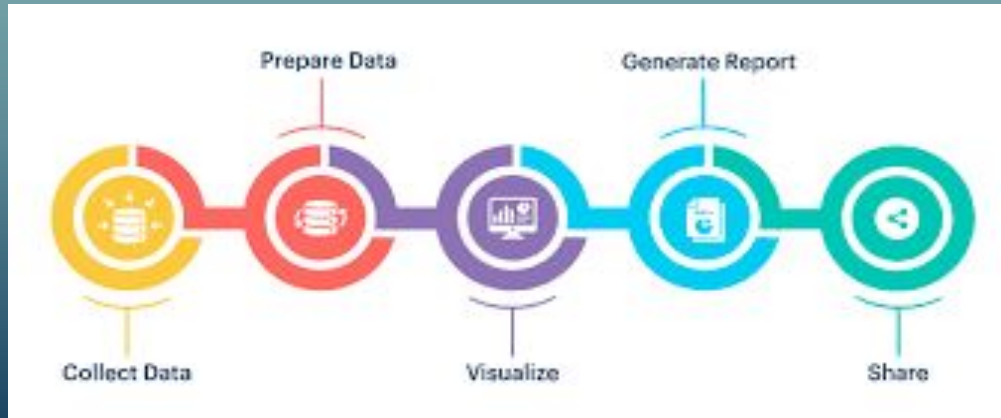
# IMPLEMENTATION



Step 1: Load the dataset i.e the zomato.csv file into the power BI tool.

Step2: Clean/remove the unnecessary columns from the dataset by transform data option.

Step3: Implementing the required fields in our dashboard using appropriate visual forms or graphs.





vi) Cuisines: It includes a list of food items from different parts of the world. Here a slicer visual form is used.

vii) Onilne\_Order: it represents whether a particular restaurant has a facility to order online through zomato or not, slicer visual form is used here.

viii) Book\_Table: it represents whether a particular restaurant has a facility to book tables or not, a slicer visual form is used here.

ix) Top 10 Restaurants: It is represented by a stacked column chart with names of top 10 restaurants on x-axis and votes field on y-axis.

# RESULT:



## Restaurant Types

Buffet

Cafes

Delivery

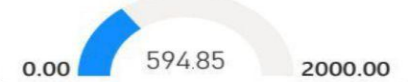
Desserts

Dine-out

Drinks & nightlife

Pubs and bars

## Average Bill Amount



## Location

- ☐ Banashankari
- ☐ Banaswadi
- ☐ Bannerghatta R...
- ☐ Basavanagudi
- ☐ Basaveshwara ...
- ☐ Bellandur
- ☐ Bommanahalli
- ☐ Brigade Road
- ☐ Brookefield
- ☐ BTM
- ☐ Central Bangal...

## Cuisines

Search

- ☐ African, Burger
- ☐ African, Burger, Desserts, Beverages, Fast Food
- ☐ American
- ☐ American, Asian, Continental, North Indian, S...
- ☐ American, Asian, European, North Indian
- ☐ American, BBQ
- ☐ American, Burger, Fast Food

## Total Votes

15M

## Average Rating

3.70

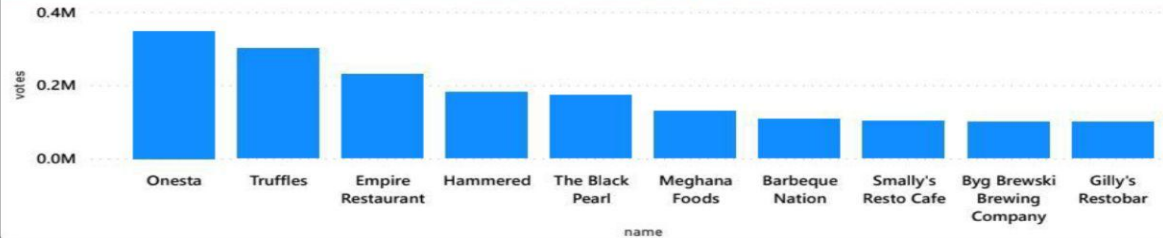
## Online\_Order

- ☐ No
- ☐ Yes

## Book\_Table

- ☐ No
- ☐ Yes

## Top 10 Restaurants







# REFERENCES

- <https://www.guru99.com/power-bi-tutorial.html>
- <https://www.tableau.com/learn/articles/data-visualization>
- <https://www.kaggle.com/datasets/himanshupoddar/zomato-bangalore-restaurants>

Thank You!

Any Query?