A COMPREHENSIVE ANALYSIS OF FINANCIAL PERFORMANCE: INSIGHTS FROM A LEADING BANKS

A PROJECT REPORT

Submitted by

R.PARKAVI (TL) **222000967**

M. NISHANTHI **222000965**

V. NIVETHA **222000966**

B. PAVITHRA **222000968**

PROJECT INCHARGE : MRS.C.YUVARANI
ASSISTANT PROFESSOR
DEPARTMENT OF MATHEMATICS
DRBCCC HINDU COLLEGE
PATTABIRAM CHENNAI – 72

CONTENTS

CHAPTER - 1

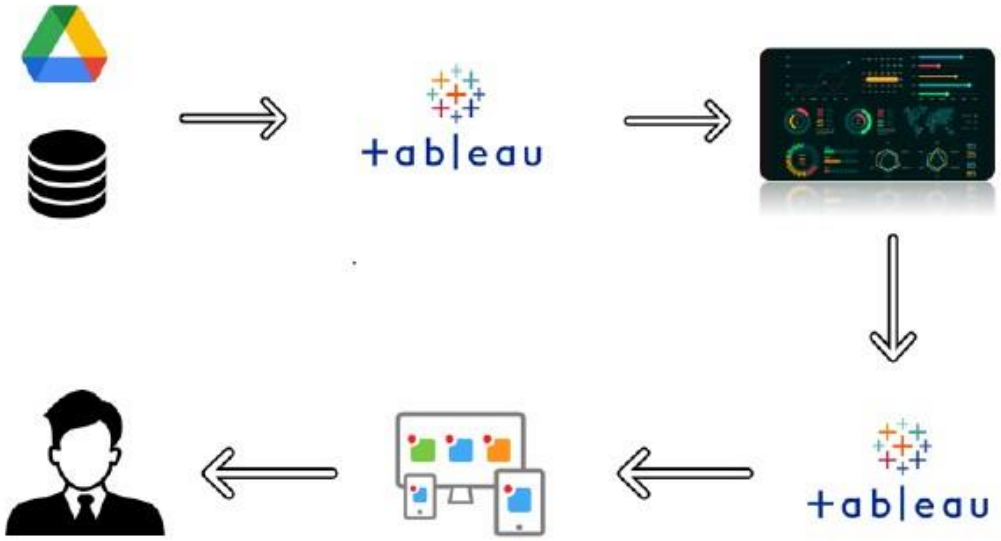
INTRODUCTION

1.INTRODUCTION :

The banking industry world-wide is being transformed. The global forces for change include technological innovation; the deregulation of financial services at the national level and opening-up to international competition; and - equally important - changes in corporate behaviour, such as growing disintermediation and increased emphasis on shareholder value. In addition, recent banking crises in Asia and Latin America have accentuated these pressures.

The banking industries in central Europe and Latin America have also been transformed as a result of privatizations of state-owned banks that had dominated their banking systems in the past. In this project we are trying to analysis the bank related data and able to extract some insights from the data using Business Intelligence tools. To Extract the Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

Technical Architecture:



1.1. OVERVIEW :

I. Introduction

- Explanation of the purpose and scope of the analysis
- Brief overview of the banking industry and key players

II. Methodology

- Description of the data sources and analytical tools used in the analysis

- Explanation of the financial metrics and ratios used to evaluate performance

III. Overview of the Leading Banks

- Identification of the banks selected for analysis
- Brief background information on each bank

IV. Financial Performance Analysis

- Revenue and profit analysis for each bank
- Key performance indicators (KPIs) analysis, including:
- Return on Equity (ROE)
- Return on Assets (ROA)
- Net Interest Margin (NIM)
- Efficiency Ratio
- Comparison of financial performance across banks

V. Risk Management Analysis

- Evaluation of each bank's risk management practices and policies
- Discussion of potential risks faced by each bank and how they

A BRIEF DESCRIPTION ABOUT YOUR PROJECT :

- A comprehensive analysis of financial performance for leading banks involves evaluating the financial health and risk management practices of major banks in the industry. This analysis typically involves a detailed examination of the banks' financial statements and performance metrics, as well as an evaluation of their risk management policies and practices. The project aims to provide insights into the banks' financial performance

and risk management practices, and may include recommendations for how the banks can improve their performance going forward.

1.2 PURPOSE :

I. **To Identify Strengths And Weaknesses:** By analyzing the financial performance of leading banks, the analysis can help identify areas of strength and weakness in the banks' financial performance and risk management practices. This can help investors and other stakeholders make informed decisions about investing or partnering with the banks**.**

II. **To Evaluate The Banks' Competitiveness**: The analysis can help evaluate the competitiveness of the banks by comparing their financial performance and risk management practices with other banks in the industry. This can help investors and stakeholders determine which banks are most likely to succeed in the long term.

III. **To Assess The Risks Faced By The Banks:** By evaluating the risk management practices of the banks, the analysis can help assess the potential risks faced by the banks and how well they are prepared to manage these risks. This can help investors and stakeholders understand the potential risks associated with investing or partnering with the banks.

IV. **To Inform Regulatory Decisions:** The analysis can also be useful for regulators in evaluating the financial health and risk profile of major banks. This information can help inform regulatory decisions related to capital requirements, stress testing, and other regulatory policies.

Overall, the purpose of a comprehensive analysis of financial performance for leading banks is to provide a detailed understanding of the financial health and risk profile of major banks, and to provide insights that can inform investment decisions, regulatory decisions, and other strategic decisions related to the banking industry.

THE USE OF THIS PROJECT. WHAT CAN BE ACHIEVED USING THIS :

The use of a comprehensive analysis of financial performance for leading banks is to provide valuable insights into the financial health and risk management practices of major banks. The project can be used to achieve several objectives, including:

I. **Investment Decision-Making :** The analysis can help investors make informed decisions about investing in or partnering with major banks. By evaluating the financial performance and risk management practices of the banks, investors can gain a better understanding of the potential risks and rewards associated with investing in the banks.

II. **Risk Management :** The analysis can also be useful for banks themselves in identifying areas of weakness in their risk management practices. By evaluating the risk management practices of other leading banks, banks can gain insights into how to improve their own practices and mitigate potential risks.

III. **Regulatory Oversight :** The analysis can also inform regulatory oversight of the banking industry. Regulators can use the insights gained from the analysis to assess the financial health and risk profile of major banks and make regulatory decisions related to capital requirements, stress testing, and other regulatory policies.

IV. **Strategic Decision-Making :** The analysis can also be useful for banks and other stakeholders in the banking industry in making strategic decisions related to mergers and acquisitions, expansion into new markets

CHAPTER - 2

PROBLEM DEFINITION & DESIGN THINKING

2.1. EMPATHY MAP :

- An Empathy Map is a tool used to help understand and empathize with the perspective of a particular user or customer. It is a visual representation of the user's attitudes, behaviors, emotions, and experiences that can be used to gain a deeper understanding of their needs and motivations. The Empathy Map is typically divided into **four quadrants**: **"Says," "Thinks," "Does,"** and **"Feels."** In each quadrant, the user's thoughts, feelings, actions, and spoken words are recorded to help build a more complete understanding of their perspective. The Empathy Map is often used in design thinking and user experience research to help inform the design of products or services that better meet the needs of the user.

Says

What have we heard them say?
What can we imagine them saying?

How leading banks perform financially.

Difficulty in applying the insights to work or business.

Insights and data to make decisions about investments.

Lack of time to analyze all financial data.

Thinks

What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?

Comparison of interest rate with other banks.

Security of the investment.

Easy way of saving money

Transparency

A Comprehensive Analysis of Financial Performance : Insights from a Leading Banks

Does

What behavior have we observed?
What can we imagine them doing?

Reads financial news and reports regularly

Researches different investment options.

Looks for trusted sources of information to make investment decisions.

Feels

What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?

Curious about the financial performance of leading bangs.

If the funds will be trapped?

Frustration or disappointment if the finding are unexpected unfavourable.

Anxious about making investment decisions.

2.2. IDEATION & BRAINSTORMING MAP :

- Ideation and Brainstorming Maps are tools used to generate and organize ideas in a structured and visual way. They are commonly used in creative problem solving, innovation, and product design to generate a large number of ideas and then organize them into meaningful categories.

- Ideation and Brainstorming Maps typically start with a central theme or problem statement in the center of the map. From there, branches are drawn out to represent different categories or subtopics related to the central theme. These categories can then be further expanded with additional branches to represent specific ideas.

- The purpose of an Ideation and Brainstorming Map is to encourage free thinking and generate as many ideas as possible. It allows participants to visually see how ideas are connected and to build upon each other's ideas. The map can then be used to prioritize and refine the most promising ideas. There are many variations of

  Ideation and Brainstorming Maps, including Mind Maps, Spider Maps, and Fishbone Diagrams.

1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 2 minutes

PROBLEM

The banking industry worldwide is being transformed. The global forces for change include technological innovation, the deregulation of financial services at the national level and opening up to international competition, and - equally important - changes in corporate behavior, such as growing disintermediation and increased emphasis on shareholder value. In addition, recent banking crises in Asia and Latin America have accentuated these pressures. The banking industries in central Europe and Latin America have also been transformed as a result of privatizations of state-owned banks that had dominated their banking systems in the past. In this project we are trying to analyze the bank related data and also to extract some insights from the data using Business Intelligence tools. To extract the insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

⏱ 10 minutes

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Venkatesan.M

Shahul Hameed.M

Lokesh.K

Aravind.V.P

Kukan.R

3 Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

⏱ 20 minutes

Evaluate the bank's risk management practices, including credit risk, market risk, and operational risk, to determine the adequacy of its risk management policies and procedures.

Examine the bank's asset quality, including non-performing loans and loan loss provisions, to determine the quality of the bank's loan portfolio and its ability to manage credit risk.

Gain a competitive edge by making informed decisions based on the report's insights.

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your work.

Conduct a customer satisfaction survey to gauge the bank's performance in meeting customer needs and expectations and to identify areas for improvement.

Analyze the bank's capital structure, including debt and equity financing, to determine if the bank's capital structure is optimal and if there are opportunities for capital optimization.

Gain confidence in investment decisions through access to reliable and trustworthy information.

Evaluate the bank's digital transformation efforts, including the adoption of new technologies such as artificial intelligence and blockchain, to determine their impact on financial performance.

Gain insights and understanding of the financial performance of leading banks.

Finally, synthesize the findings of the analysis to provide actionable recommendations for improving the bank's financial performance and competitiveness in the market.

Looks for trusted sources of information to make investment decisions.

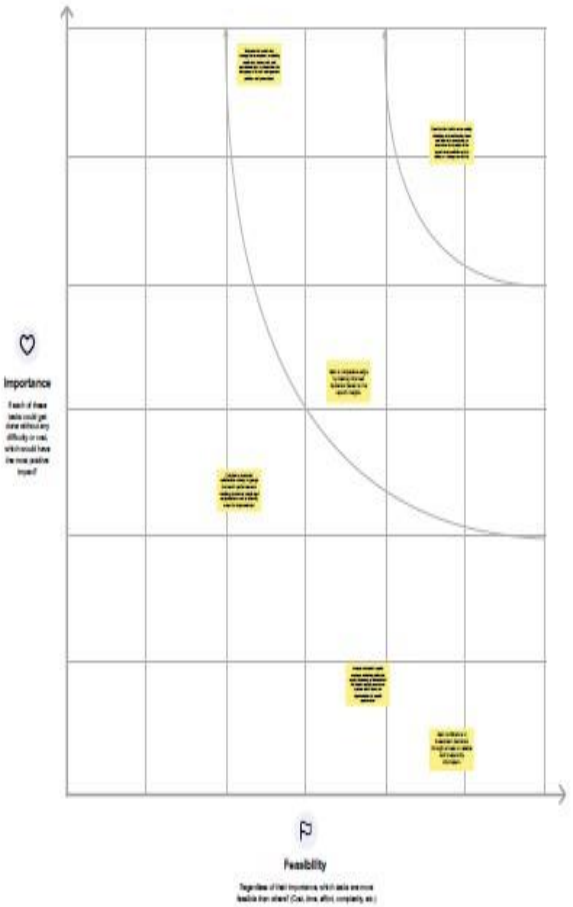
Conduct a trend analysis of the bank's financial performance over multiple periods to identify areas of improvement and determine if the bank's financial performance is improving or declining.

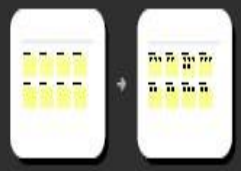
Gain access to reliable and comprehensive data to inform investment decisions.

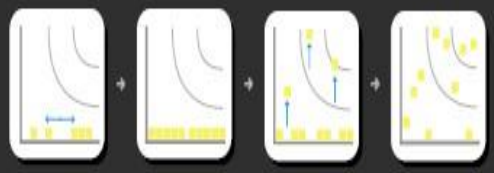
4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⏱ 20 minutes







CHAPTER – 3

DATA COLLECTION & EXTRACTION FROM DATABASE IN MYSQL

3.1.: Collect The Dataset :

- Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes and generate insights from the data.

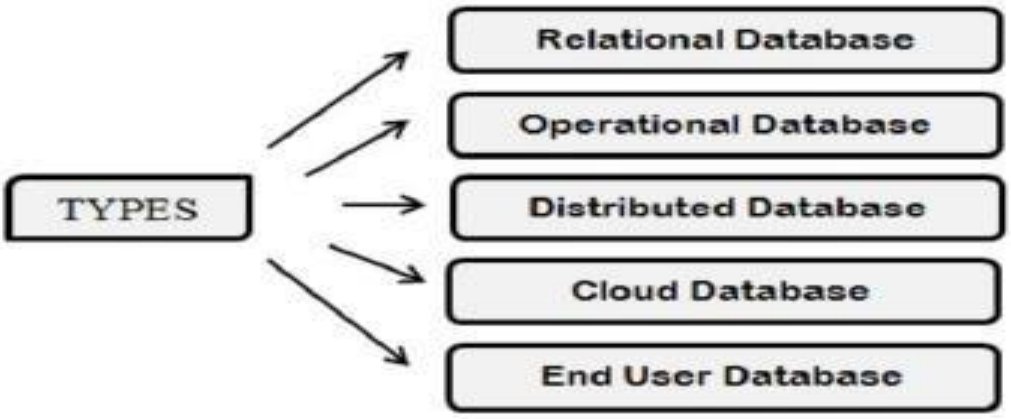
3.1.1 : Understand The Data :

- Data contains all the meta information regarding the columns described in the CSV files

Column Description Of The Dataset :

1. Bank : Name of the bank
2. Country : In which country the bank is operating
3. Total Assets : Total assets of the banks
4. Rank : Rank of the bank among the world
5. Landmass : Under which continent the bank belongs to

3.2: Storing Data In DB & Perform SQL Operations :

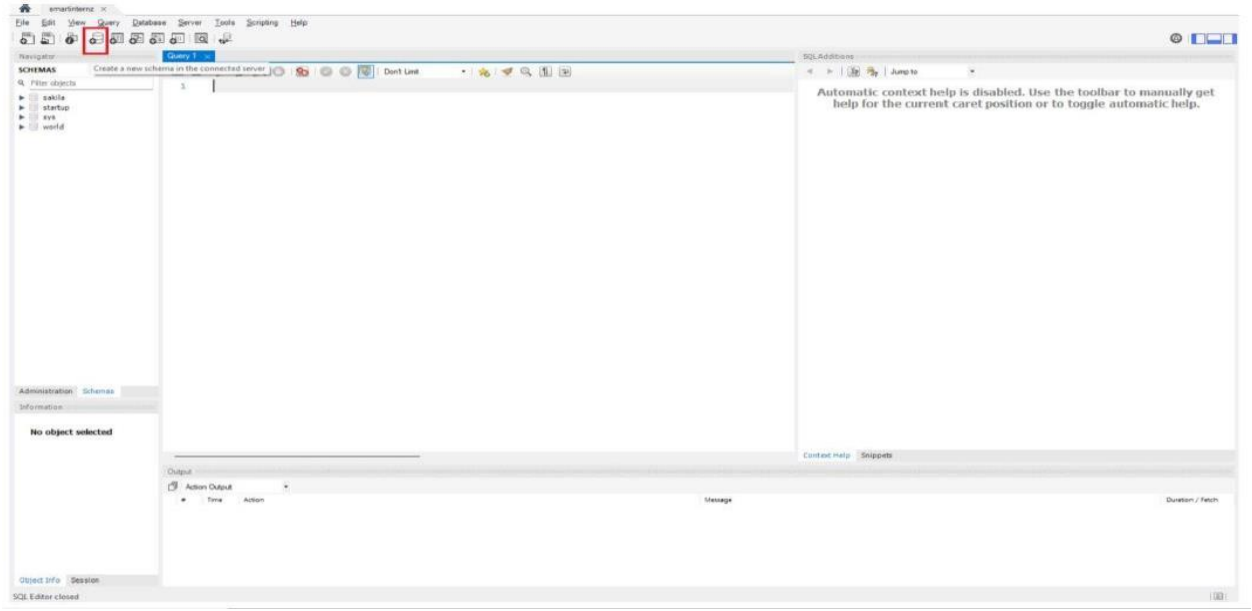


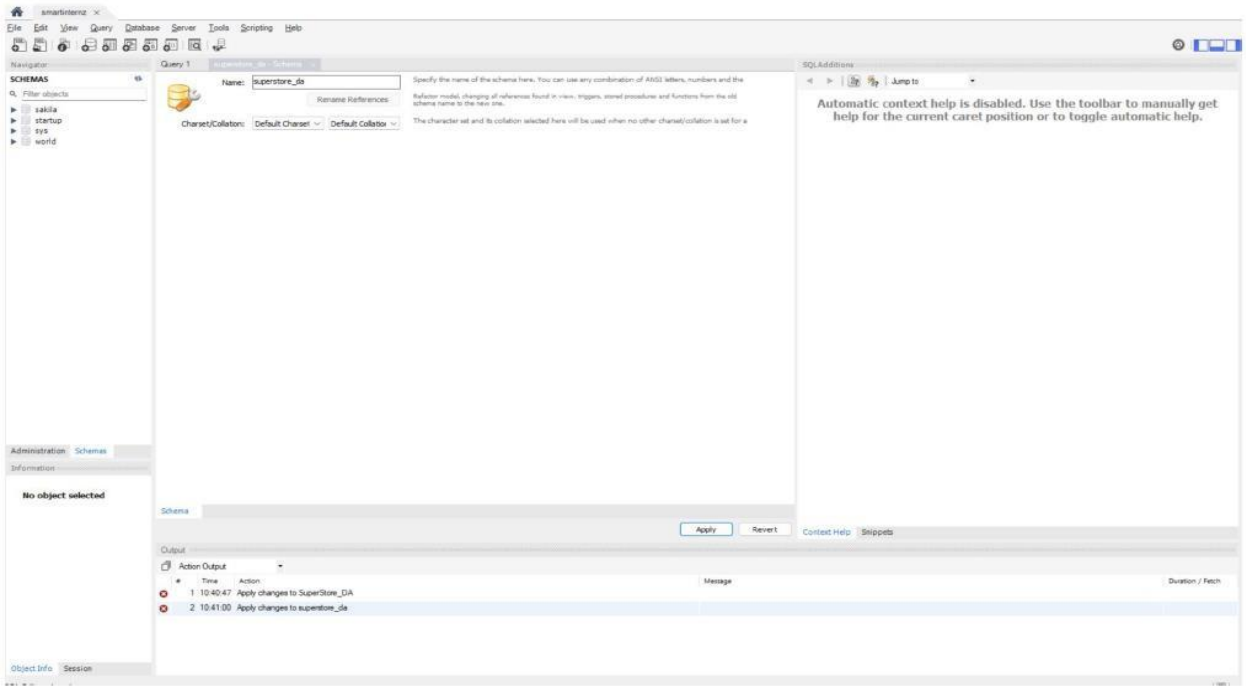
3.2.1. : Introduction To Database :

- A database is an organized collection of data, generally stored and accessed electronically from a computer system. It supports the storage and manipulation of data.
- Its ability to organize, process and manage information in a structured and controlled manner is the key to many aspects of modern business efficiency.

3.2.2.: Creating Database And Table In MYSQL :

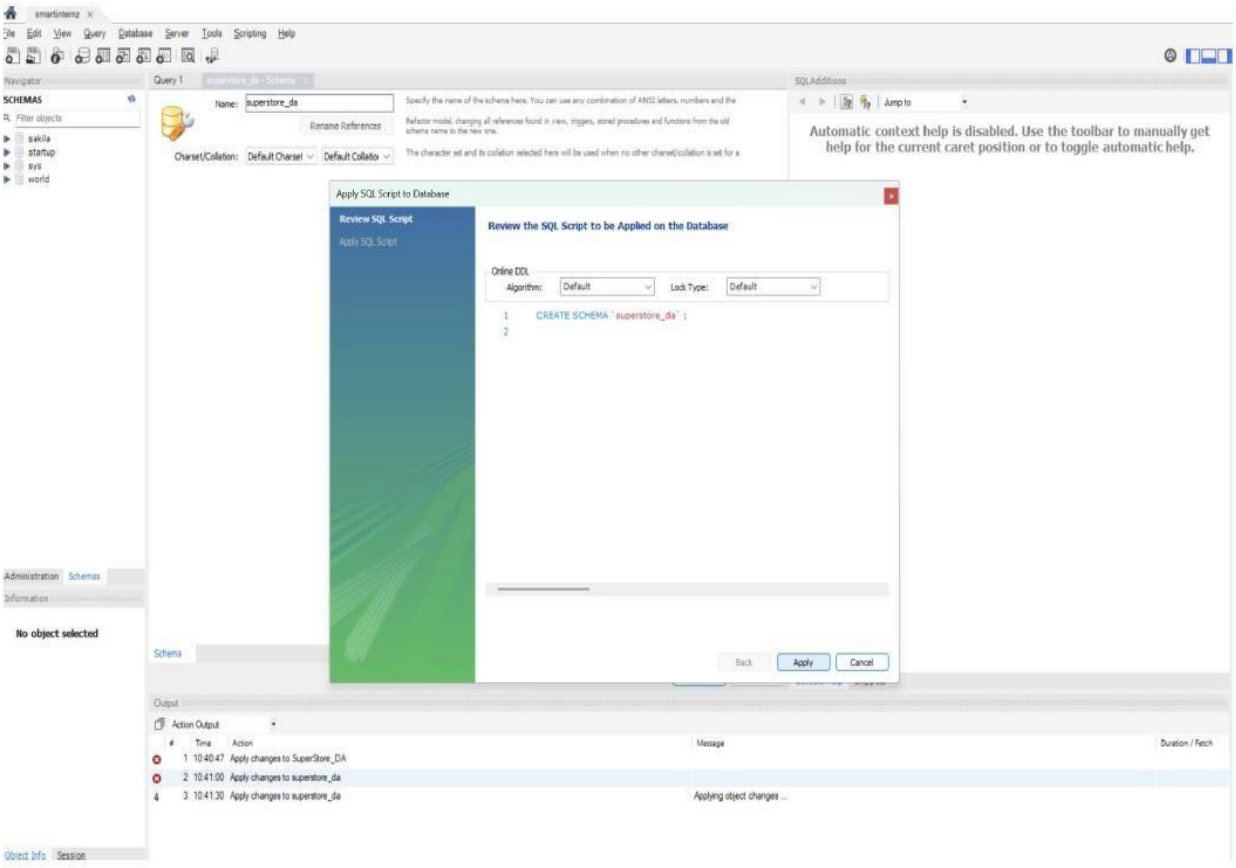
- Click on the database icon on the icon menu panel to create the schema.
- Give the name of the schema and click on apply



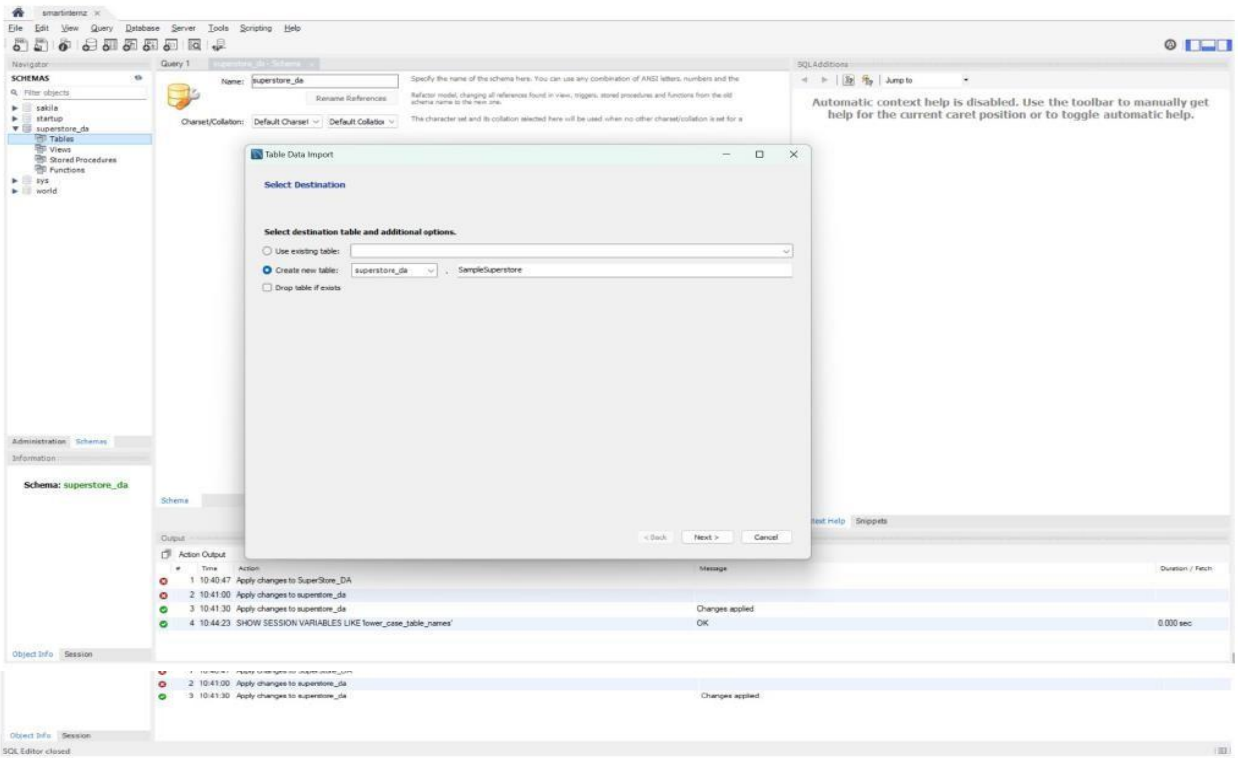


- Here you can see SQL query in SQL script for creation of new schema. Click on Apply.
- As you can see of the left panel Schema with the given name is created.
- Click on schema name and give a Right-Click on tables

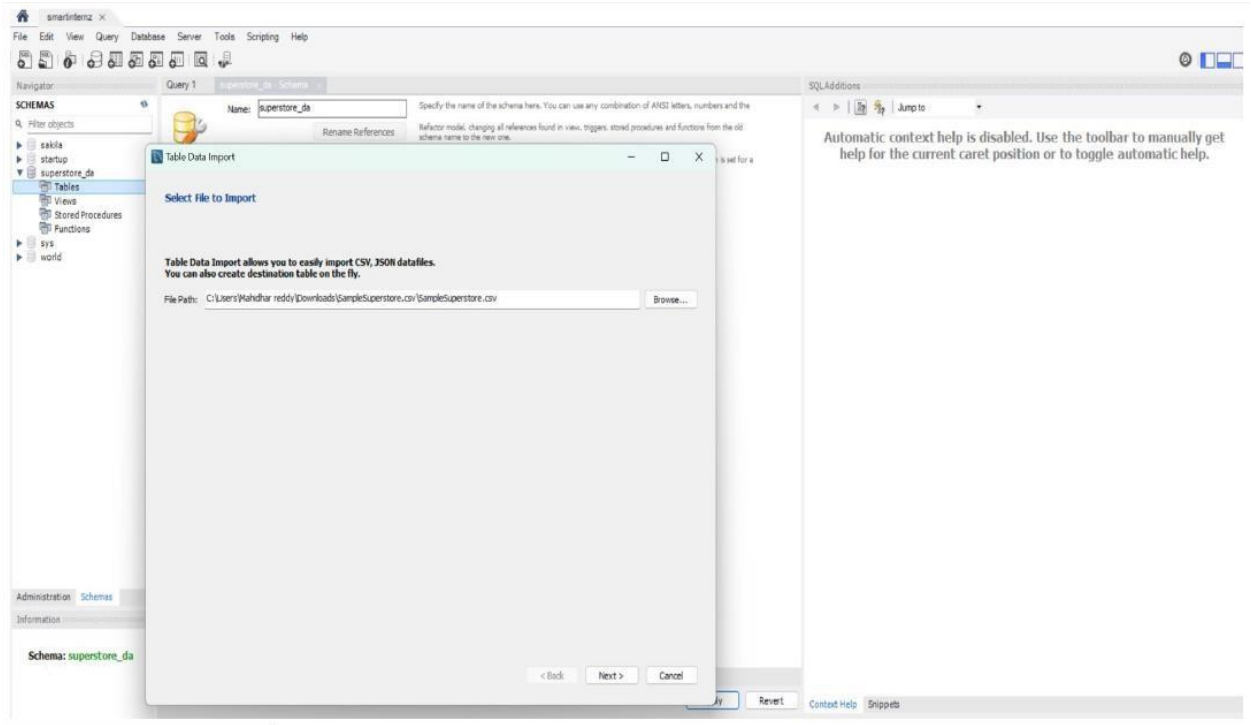
- Now click on Table Data Import Wizard to load the dataset.



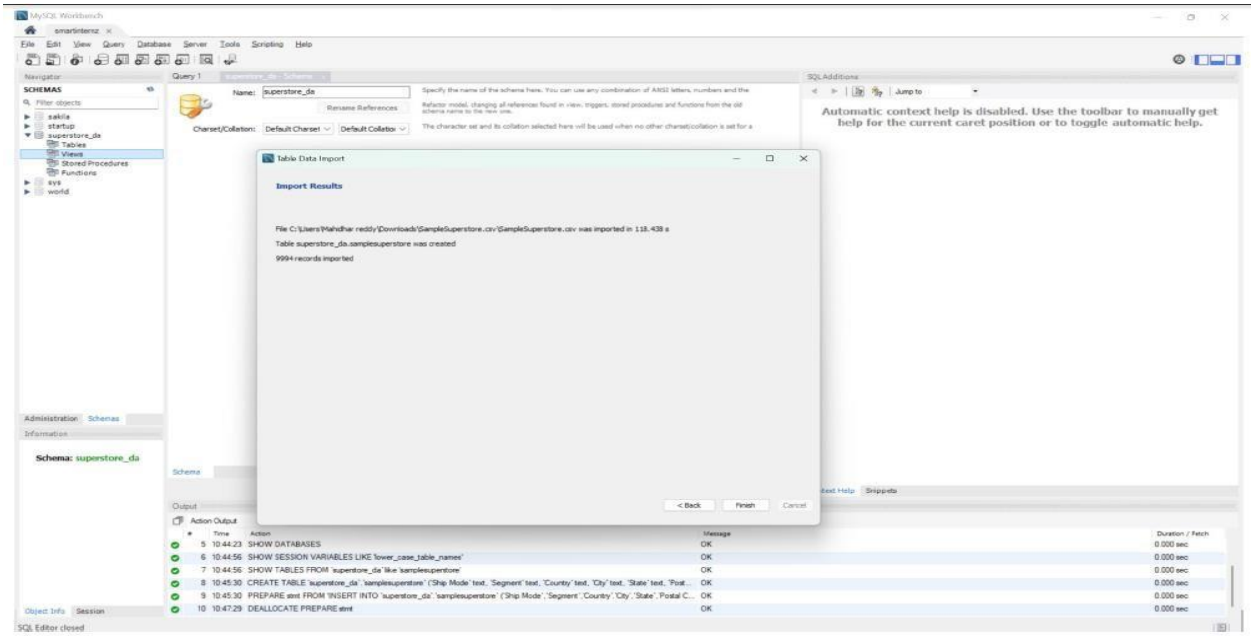
- Click on Browse and select the file in your computer to load the dataset file as a Table into that schema you created in MySQL.
- If you want add the dataset to existing table click on use existing table and select from the dropdown of tables lists.



- Otherwise go with create new table and Click on **Next.**

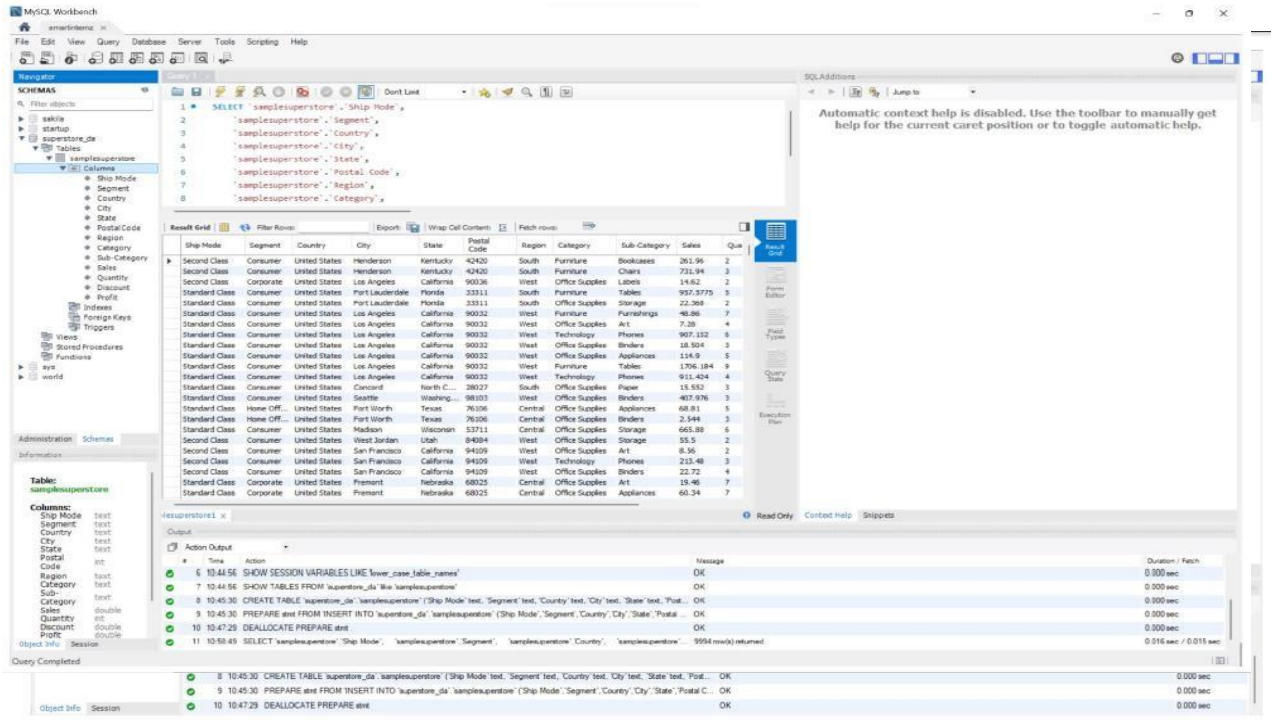


- Here you can see the dataset that loaded from the excel/csv file we have loaded and you can see the datatype of each column too.



- Here you can see the total number of records/rows that are loaded.

- Here you can see the loaded dataset that we got by using select statement in query tab.



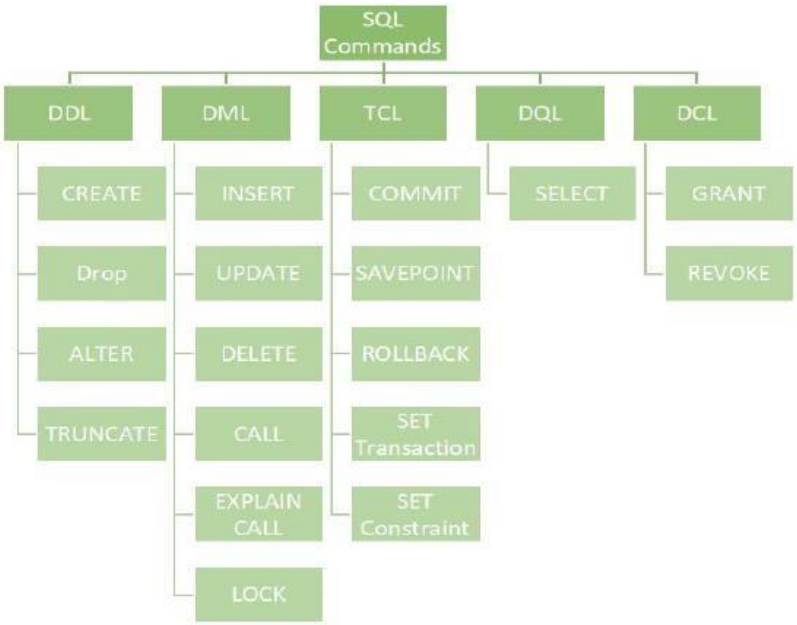
3.2.3 : CRUD Operations :

- CRUD is an acronym for CREATE, READ(SELECT), UPDATE, and DELETE statements in SQL Server.

- CRUD in database terms can be mentioned as Data Manipulation Language (DML) Statements.

3.2.4 : Basic SQL Operations :

- DDL – Data Definition Language
- DQL – Data Query Language
- DML – Data Manipulation Language
- DCL – Data Control Language
- TCL – Transaction Control Language



CHAPTER-4

INTRODUCTION TO TABLEAU

4.1.: What is Tableau?

- Tableau is a ground breaking data visualization software created by Tableau Software.
- Tableau connects easily and nearly any data source.

- Tableau allows for instantaneous insight by transforming data into

interactive data visualizations called dashboards

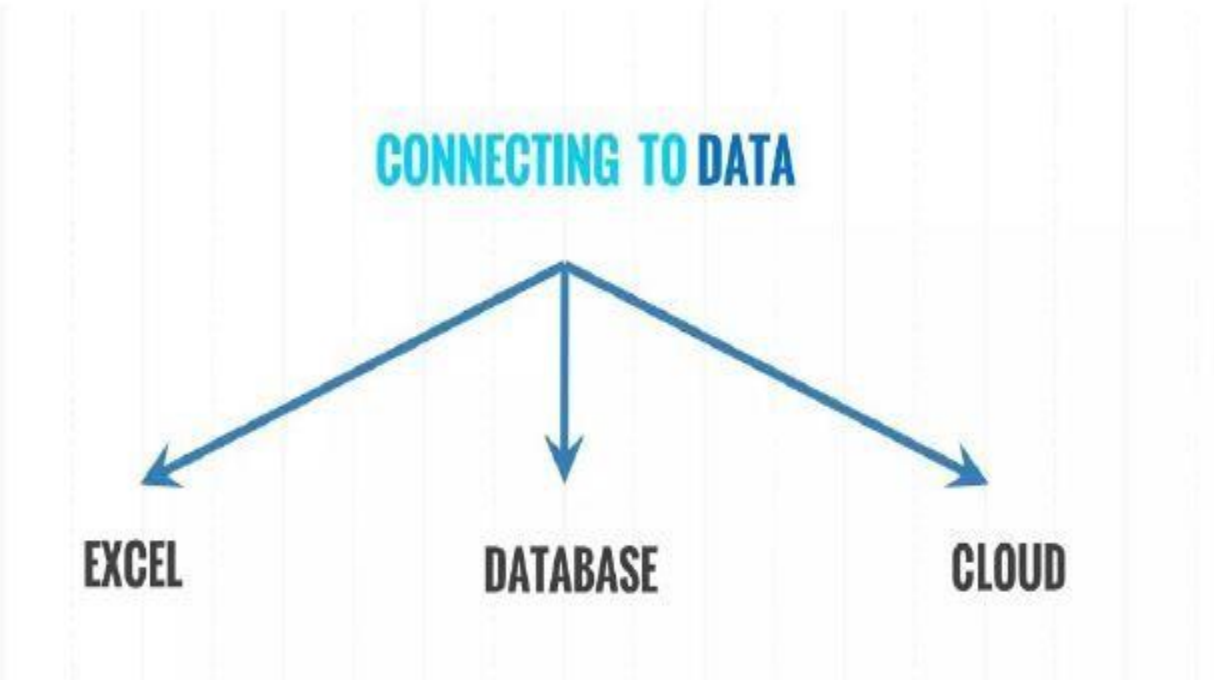
4.2.:Features of Tableau :

- Informative Dashboards
- Supports numerous Data Sources
- Provides Great Security
- Easy Collaboration & Sharing
- Provides Mobile Version
- Trend lines and Predictive analysis
- Availability of Geo Maps

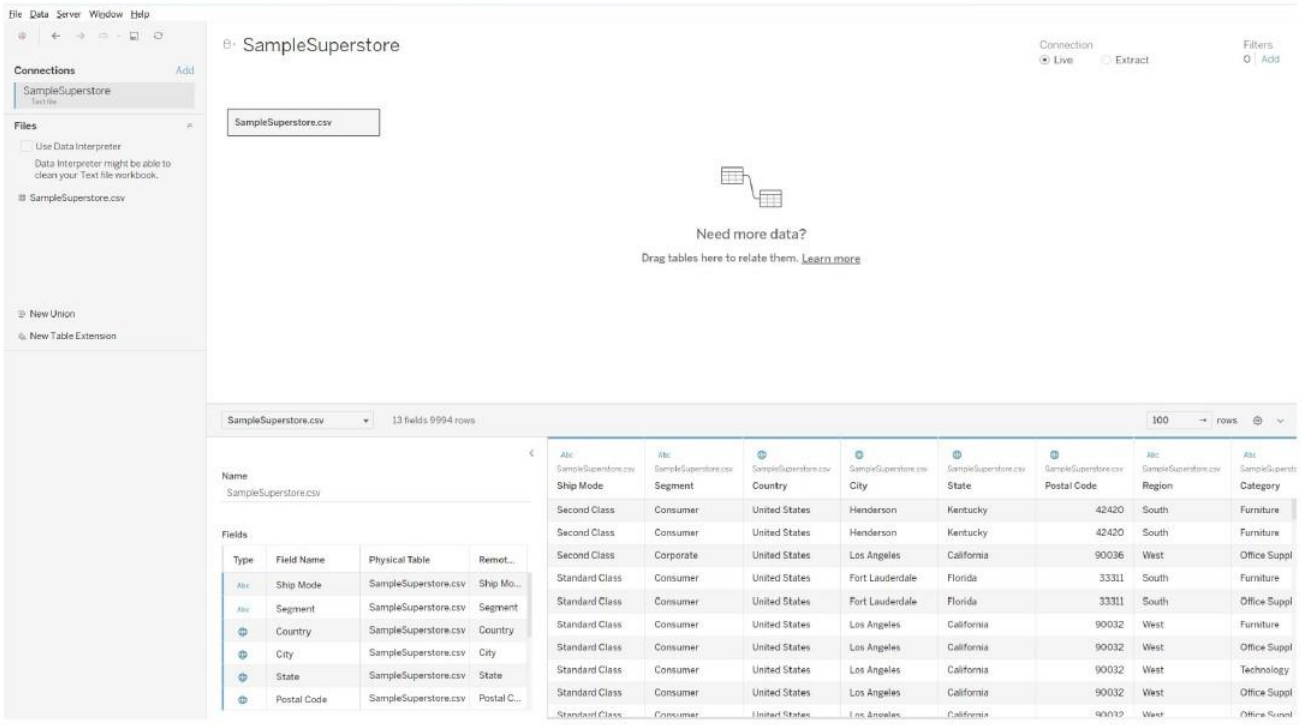
4.3.: Products of Tableau :

- Tableau Public
- Tableau Server
- Tableau Desktop

4.4.:Connecting Tableau with Data Sources :



4.5:Working with Flat files :



- In the To a File section you can see the list of file extensions.

- In the below you can see more option if the list of your file extension is not there.

4.5.:Working with the Spreadsheets :

• Tableau enables us to connect with spreadsheets to import the data.

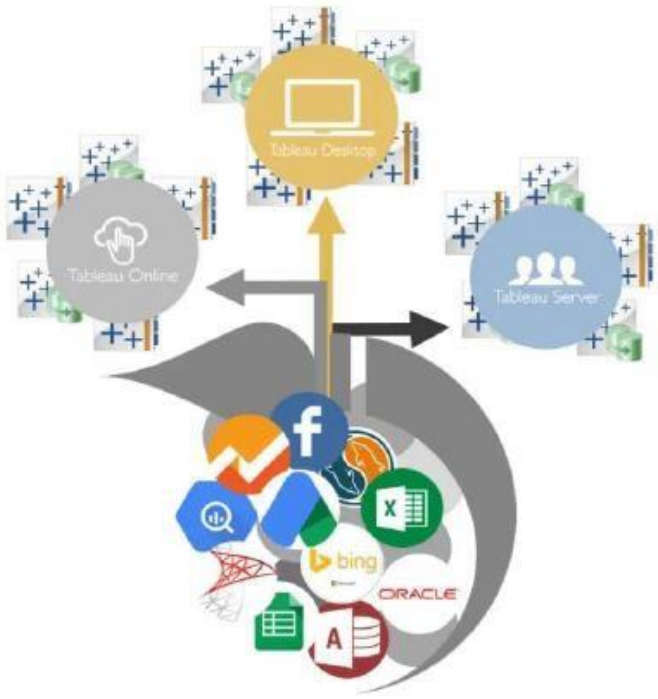
CHAPTER - 5

CONNECTING DATABASE AND TABLEAU

5.1.: Connecting Database and Tableau :

- Before you begin your analysis, you must connect to your data and then set up the data source.

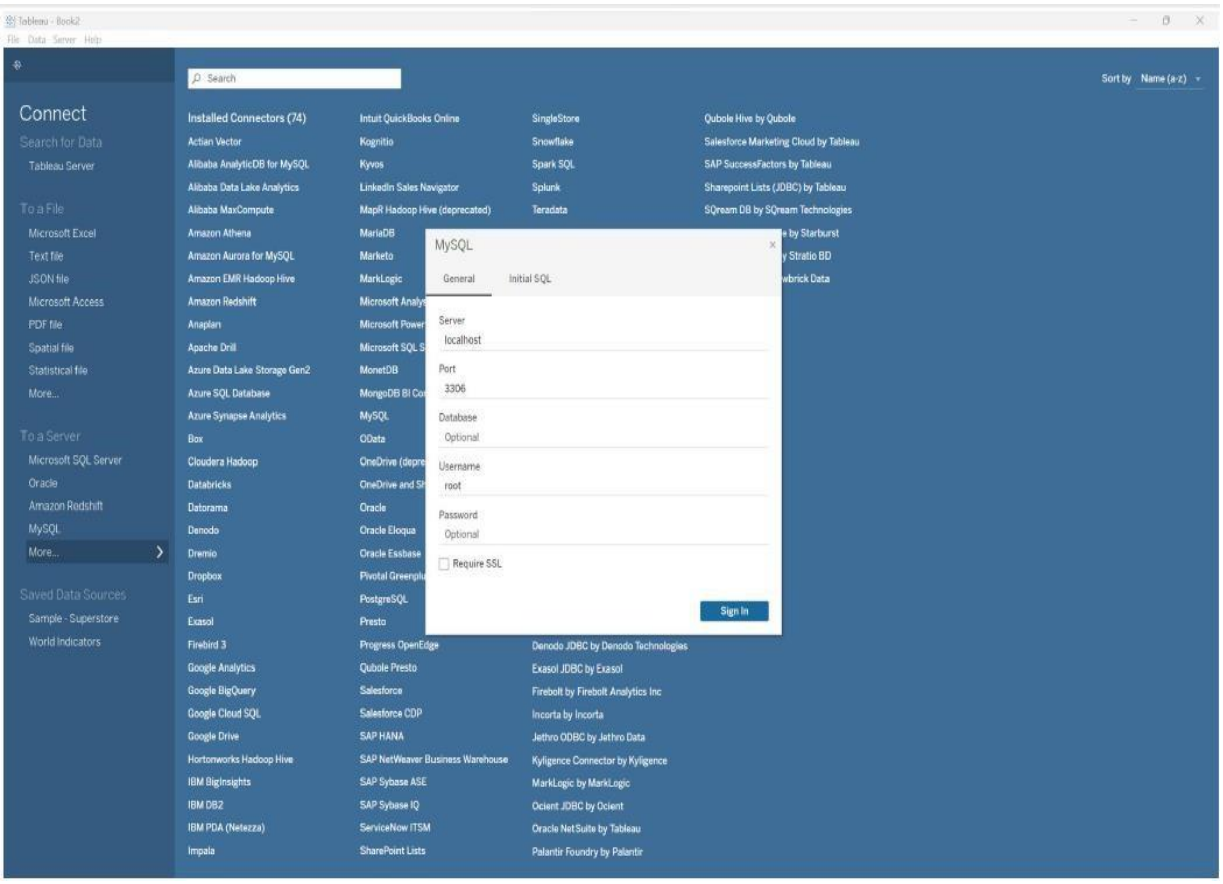
- Before you can build a view and analyze your data, you must first connect Tableau to your data.
- Tableau supports connecting to a wide variety of data, stored in a variety of places.
- For example, your data might be stored on your computer in a spreadsheet or a text file, or in a big data, relational, or database on a server in your enterprise.



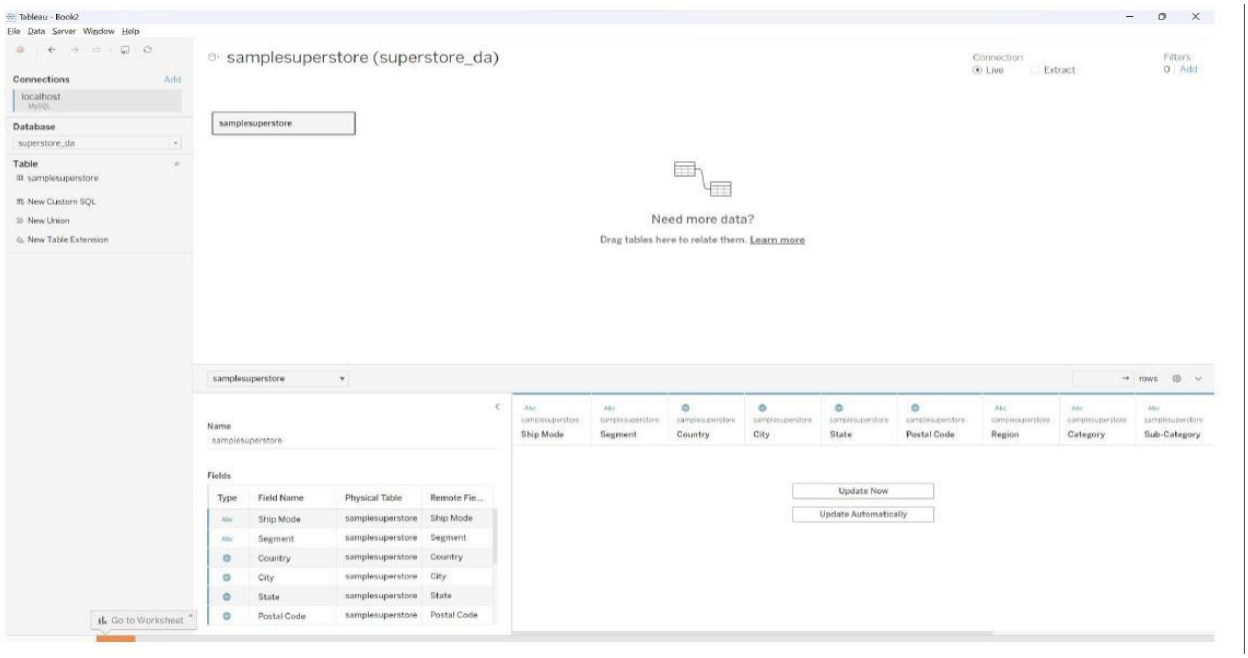
5.2.: List of Data Sources Supported by Tableau Desktop :

- When you launch Tableau Desktop, the data connectors that are available to you are listed on the Connect pane, which is the left pane on the Start page.

- Name of the server that hosts the database you want to connect to.
- Username and password
- Are you connecting to an SSL server?
- (Optional) Initial SQL statement to run every time Tableau connects. If the connection is success you can see this page.



- Now you can go to sheets and start working on the dataset to create Visualizations.



CHAPTER – 6

DATA VISUALIZATION

6.1.: What is Data Visualization…??

- Data visualization is the graphical representation of information and data. By using visual elements like chart, graph and maps.

- Data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.

Advantages :

- Easily sharing information.

- Interactively explore opportunities.

• Visualize patterns and relationships.

6.2 : Types of Visualization in Tableau :

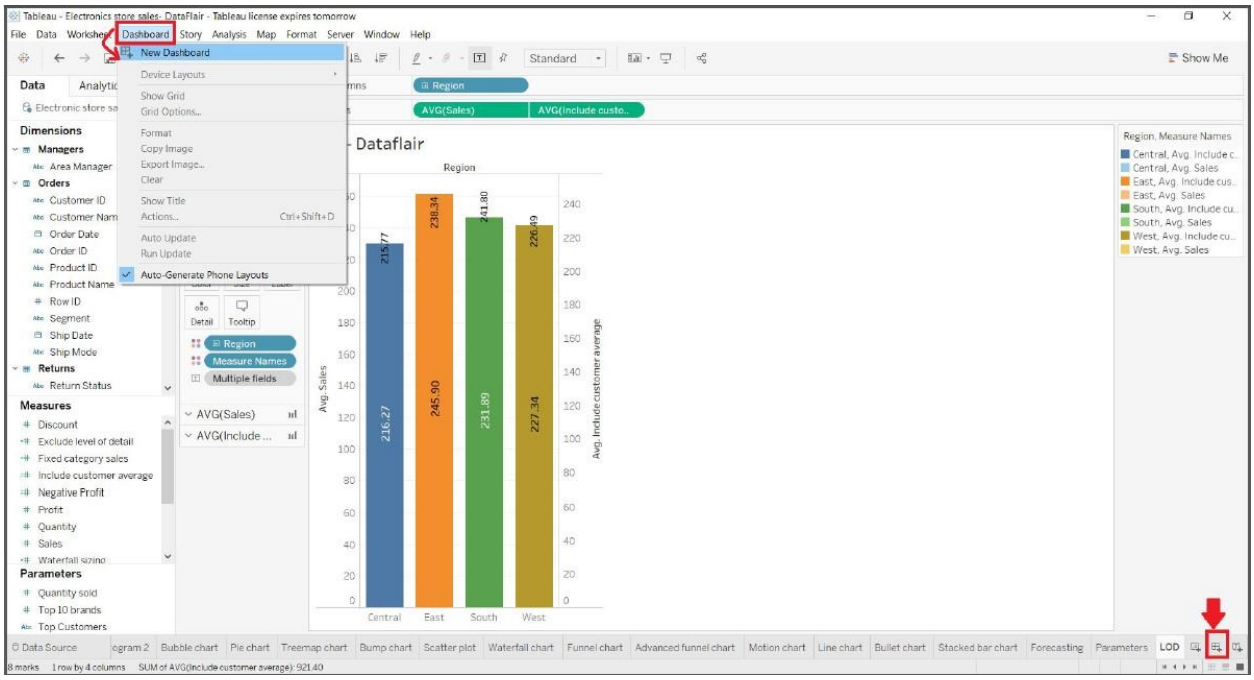
Histograms	Box plot
Motion	Pie
Bar	Line
Bubble	Bullet
Scatter	Tree

CHAPTER - 7

DASHBOARD AND STORIES

7.1.: Creating a Dashboard in Tableau :

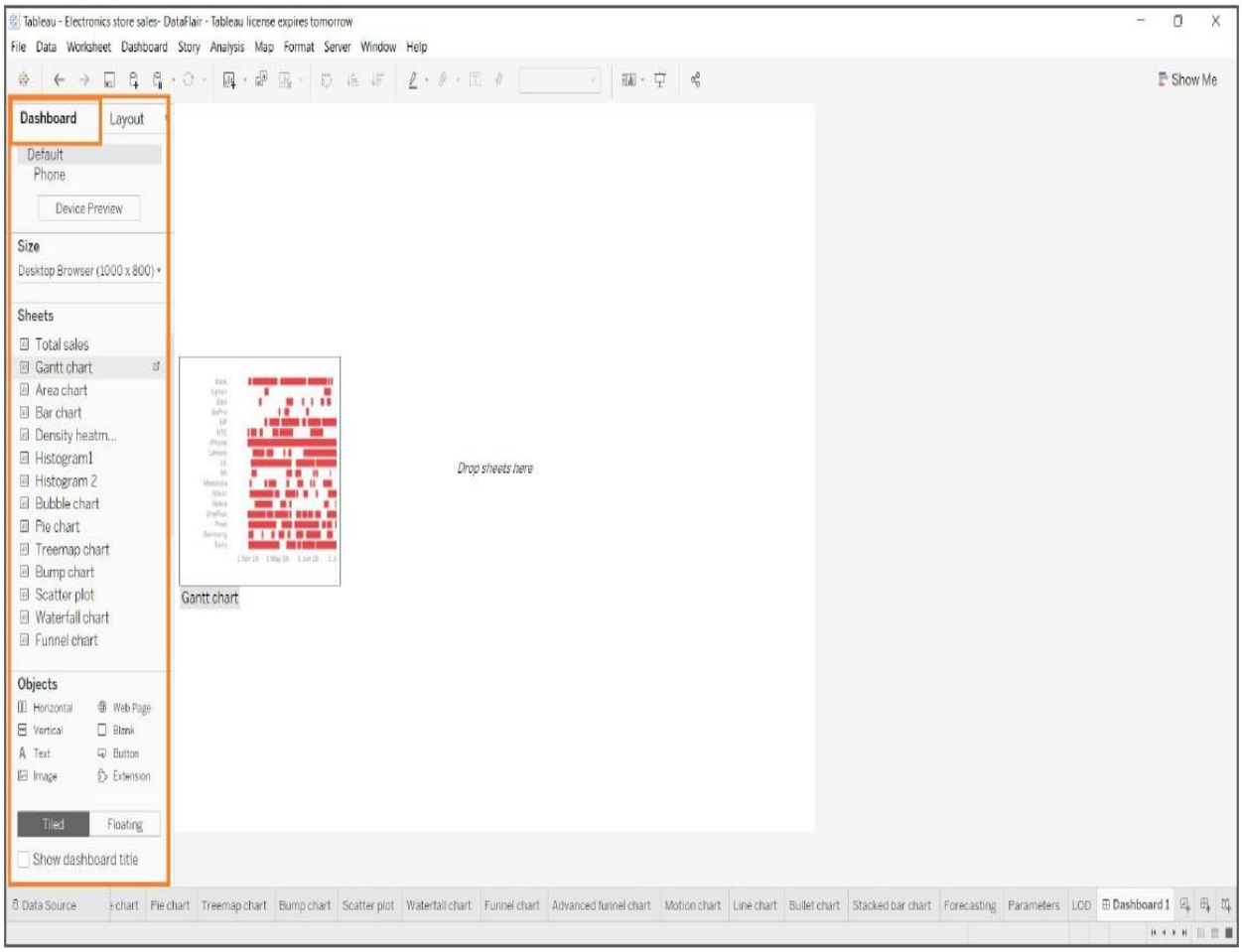
- A dashboard is a collection of different kinds of visualizations or views that we create on Tableau We can bring together different elements of multiple worksheets and put them on a single dashboard.
- The dashboard option enables us to import and add charts and graphs from worksheets to create a dashboard. On a dashboard, we can place relevant charts and graphs in one view and analyze them for better insights.



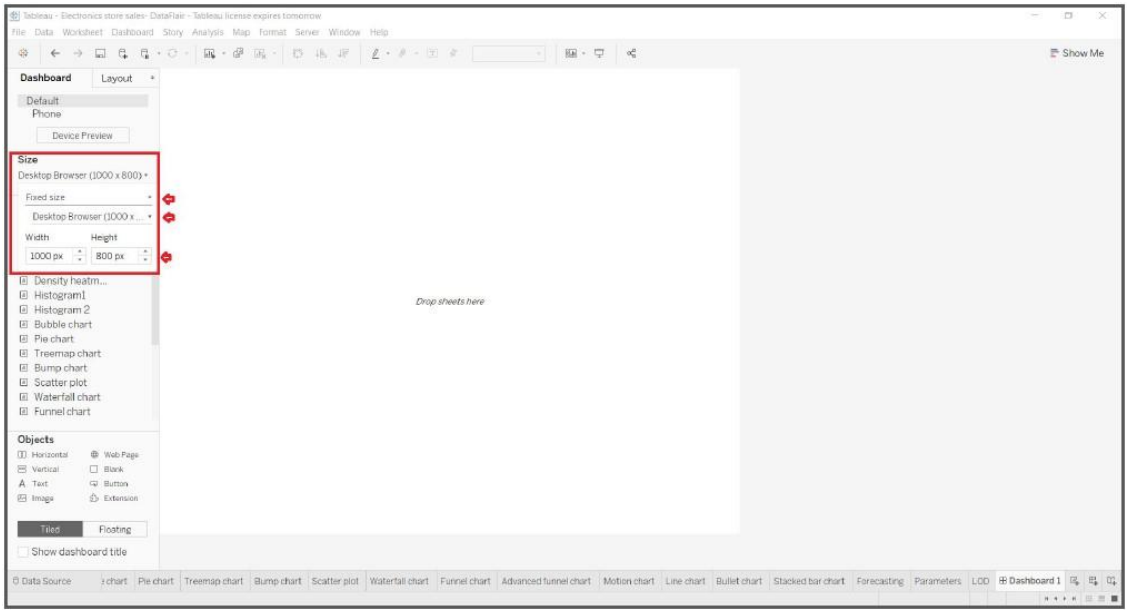
7.1.1.: Dashboard pane :

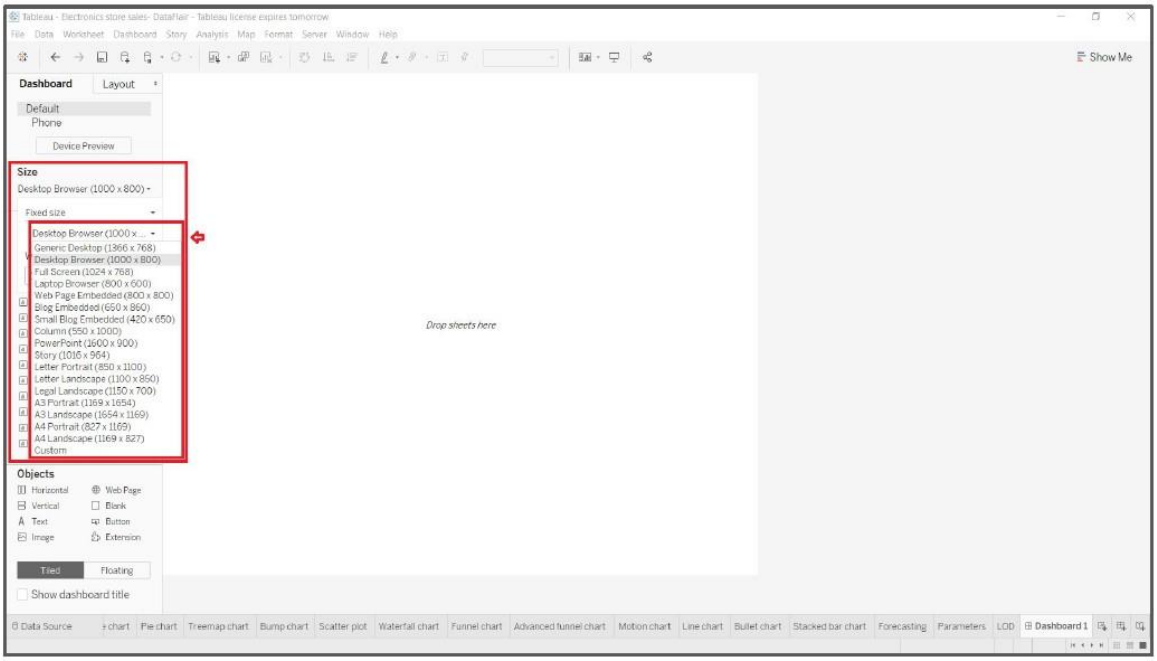
- In the window where we can create our dashboard, we get a lot of tabs and options related to dashboarding. On the left, we have

a Dashboard pane which shows the dashboard size, list of available sheets in a workbook, objects, etc.



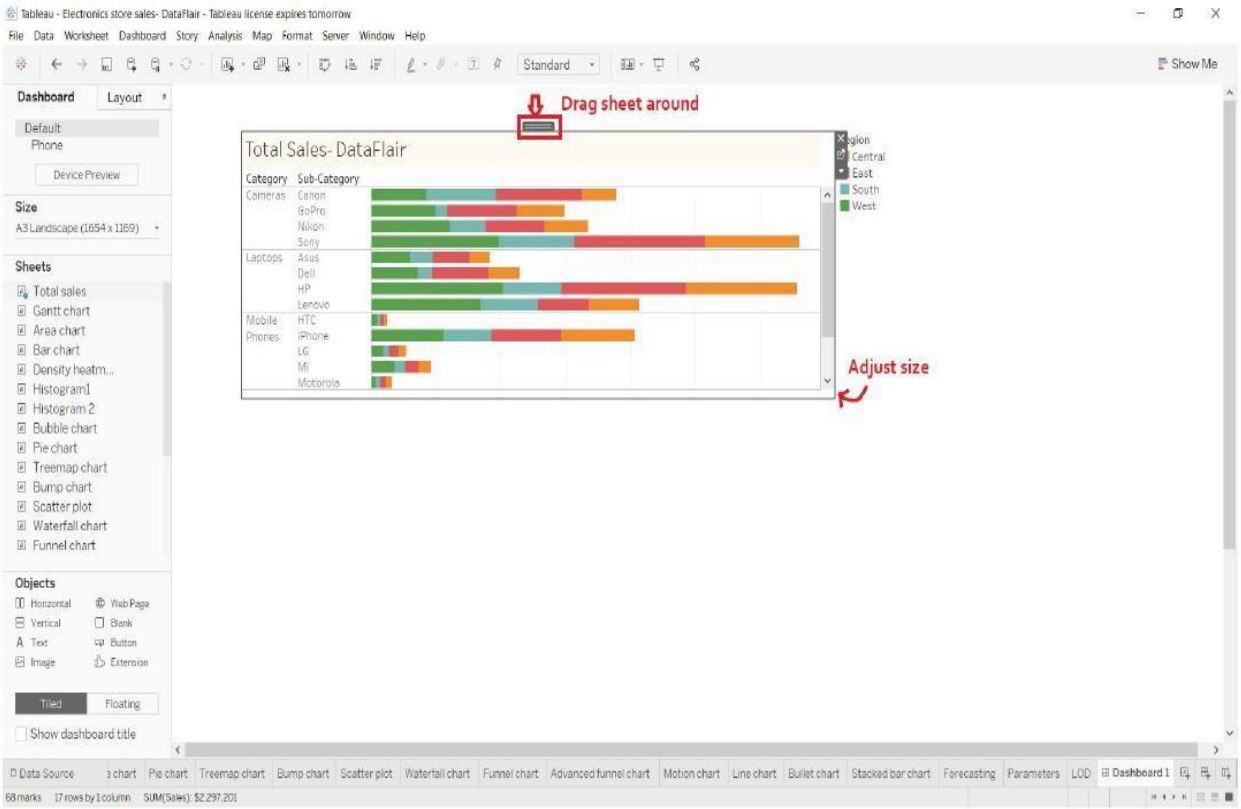
- From the Dashboard tab, we can set the size of our dashboard. We can enter custom dimensions like the width and height of the dashboard as per our requirements.





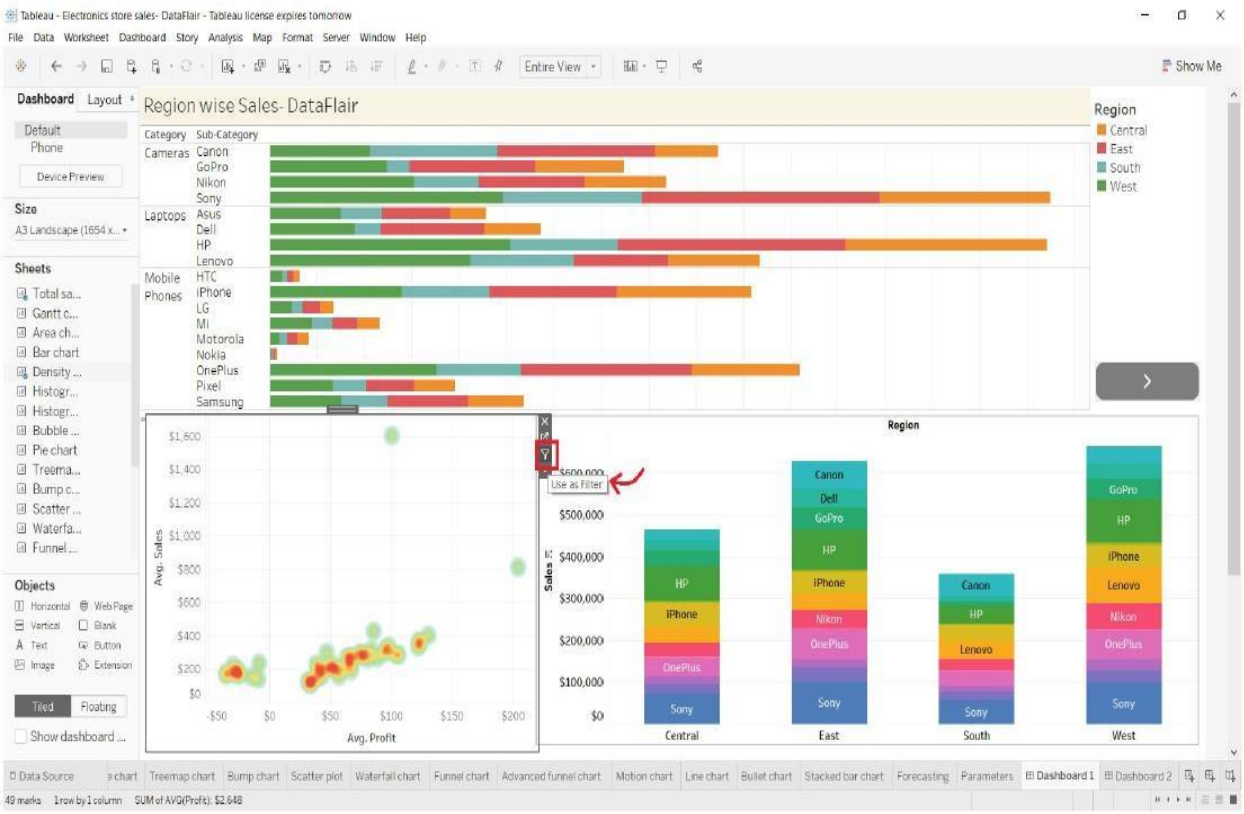
7.1.2.: Adding Sheets :

- Have a look at the picture below to see how you can drag a sheet or visual around on the dashboard and adjust its size.



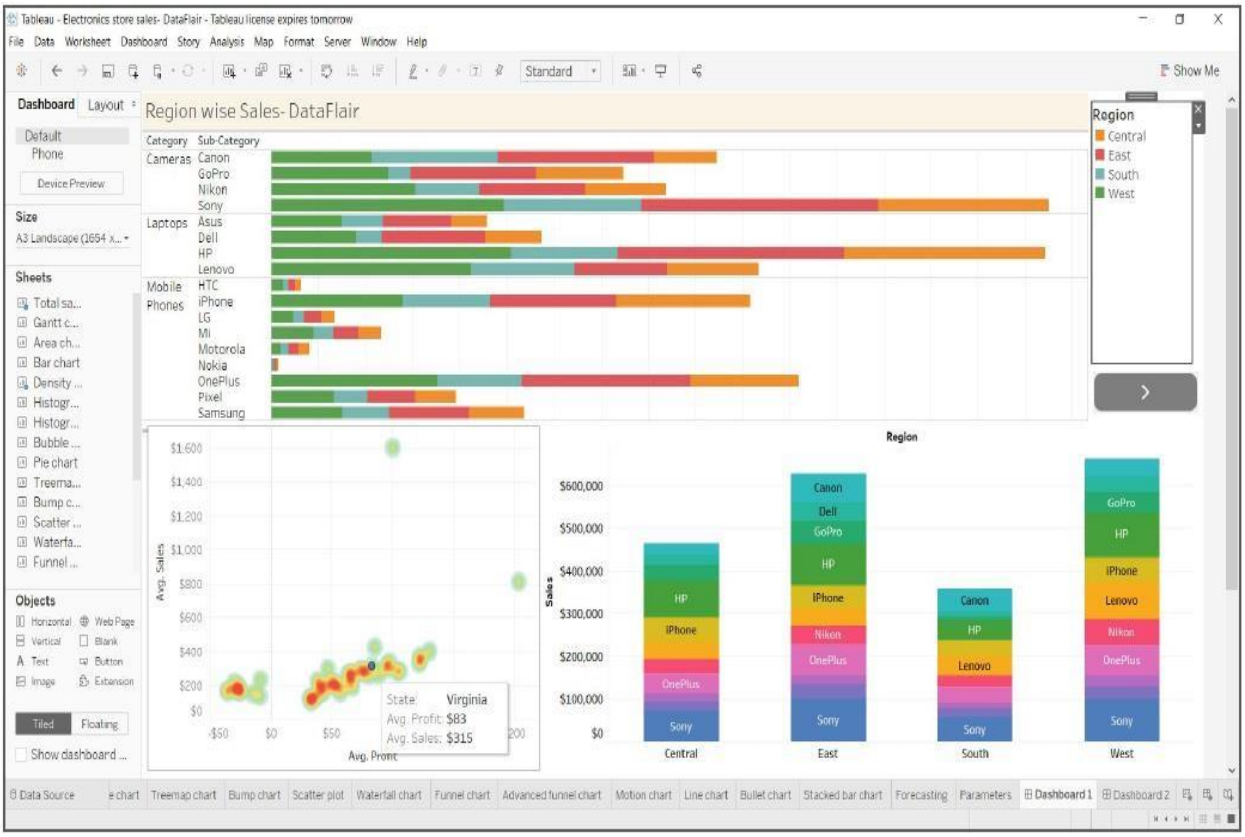
7.1.3.: Adding More sheets in dashboard :

- In a similar way, we can add as many sheets as we require and arrange them on the dashboard properly.



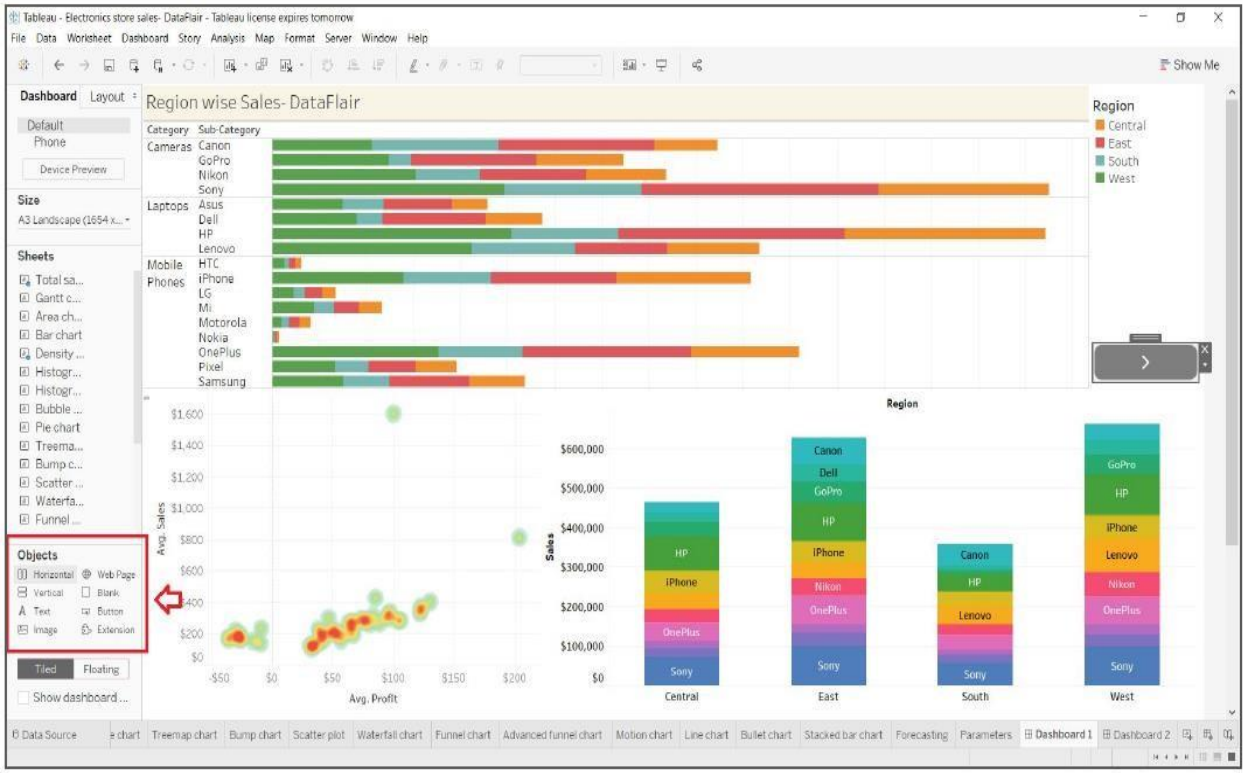
7.1.4.: Filters in dashboard :

- Also, you can apply the filter or selections on one graph and treat it like a filter for all the other visuals on the dashboard.
- To add a filter to a dashboard in Tableau, select Use as Filter option given on the right of every visual.

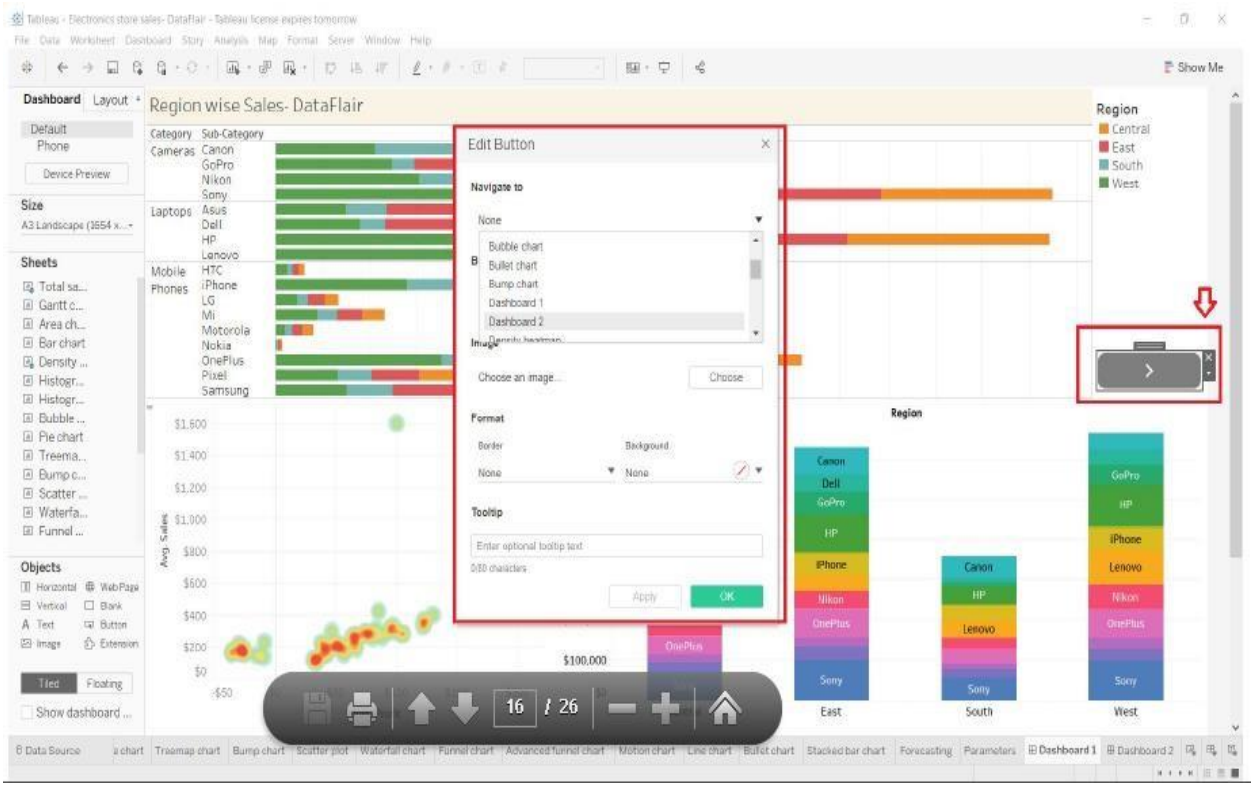


7.1.5.: Adding objects :

- Another set of tools that we get to make our dashboard more interactive and dynamic is in the Objects section. We can add a wide variety of objects such as a web page, button, text box, extension, etc.



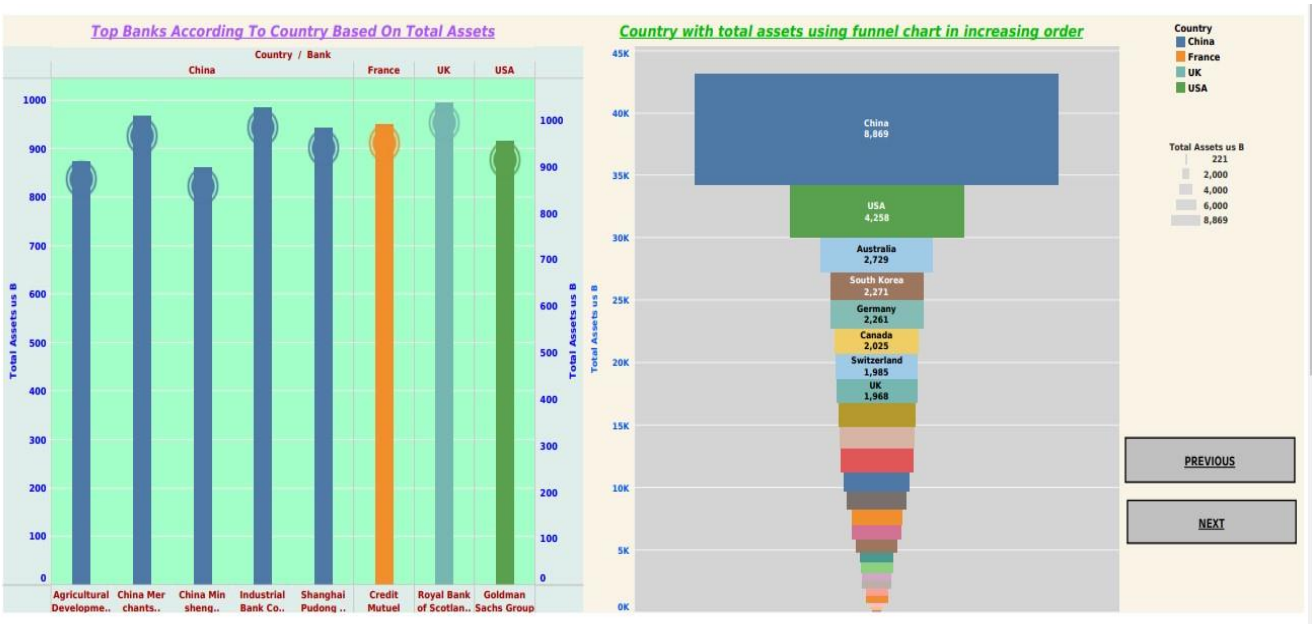
- From the objects pane, we can add a button and also select the action of that button, that is, what that button should do when you click on it. Select the Edit Button option to explore the options you can select from for a button object.

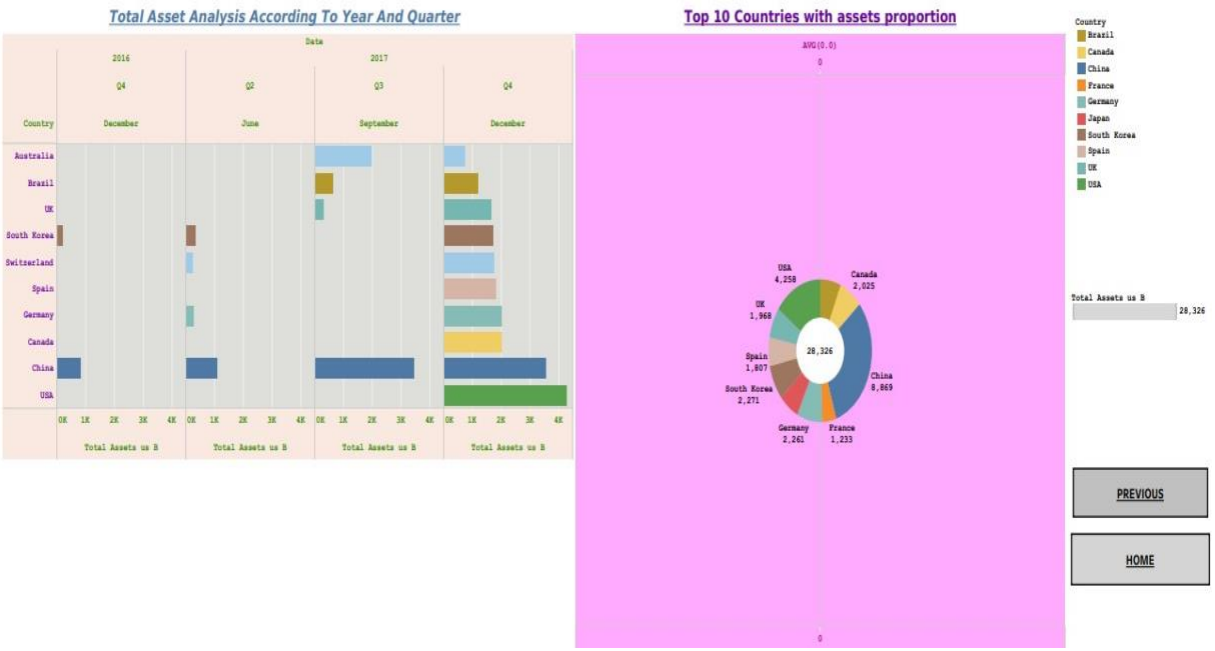


7.1.6.: Final Dashboard :

- Now, we move towards making a final dashboard in Tableau with all its elements in place


Top Banks According To Total Assets
UBS Group AG
Westpac Banking Corp
China Everbright Bank
European Investment Bank
Credit Mutuel
Industrial Bank Co. Ltd
National Australia Bank
China Minsheng Banking Corp
Bank of Nova Scotia
Credit Suisse Group
Shanghai Pudong Development Bank
Agricultural Development Bank of China
BBVA
Australia & New Zealand Banking Group
China CITIC Bank Corp
Royal Bank of Scotland Group
Commonwealth Bank of Australia
China Merchants Bank
Goldman Sachs Group
Nordea
DZ Bank AG
Standard Chartered Plc
Intesa Sanpaolo
Morgan Stanley
Rabobank Group
Top banks according rank and assets
Total Assets us B
Bank
Agricultural Development Bank of China
China Merchants Bank
China Minsheng Banking Corp
Credit Mutuel
Goldman Sachs Group
Industrial Bank Co. Ltd
Intesa Sanpaolo
Royal Bank of Scotland Group
Shanghai Pudong Development Bank
UBS Group AG
873 873
966 966
859
950
916 916
985 985
954
995 995
942 942
937 937
NEXT


Top Banks According To Country Based On Total Assets
Country / Bank
China
France
UK
USA
Total Assets us B
Agricultural Developme..
China Mer chants..
China Min sheng..
Industrial Bank Co..
Shanghai Pudong ..
Credit Mutuel
Royal Bank of Scotlan..
Goldman Sachs Group
Country with total assets using funnel chart in increasing order
China 8,869
USA 4,258
Australia 2,729
South Korea 2,271
Germany 2,261
Canada 2,025
Switzerland 1,985
UK 1,968
Country
China
France
UK
USA
Total Assets us B
221
2,000
4,000
6,000
8,869
PREVIOUS
NEXT



7.2.: What are Tableau Stories?

- Well, it is a sequence of different charts that combine to provide a cohesive plot to its viewers. In essence, all these charts tell a story about the data which allows the viewers to form their conclusion. The story in Tableau contains story points, where each story point is either a worksheet or a dashboard.
- When you share a story —for example, by publishing a workbook to Tableau Public, Tableau Server, or Tableau Cloud—users can interact with the story to reveal new findings or ask new questions of the data.

A. **Options For Adding A New Story Point:** Choose **Blank** to add a new point or **Duplicate** to use the current story point as the starting place for your next point.

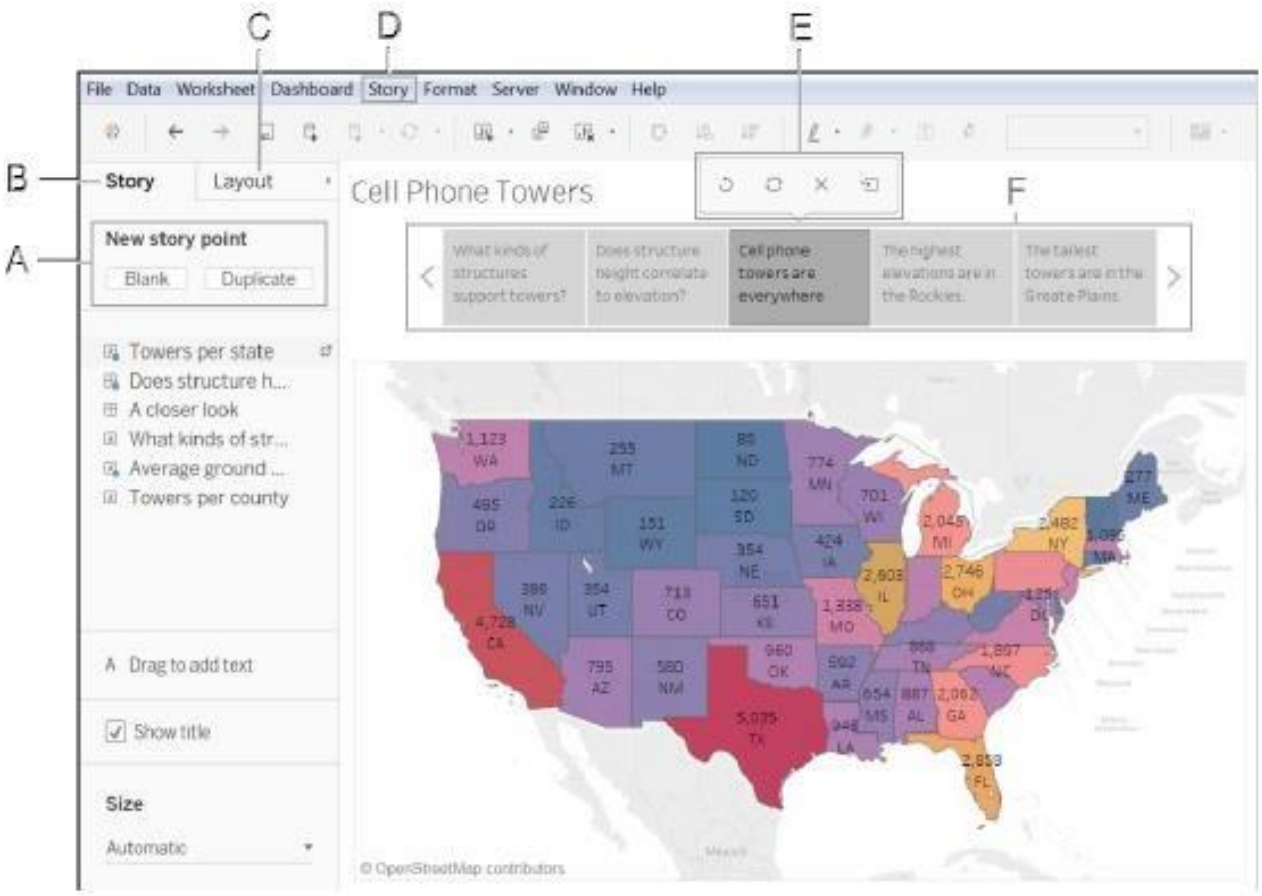
B. **The Story Pane:** Use this pane to drag dashboards, sheets, and text descriptions to your story sheet. This is also where you set the size of your story and display or hide the title.

C. **The Layout Pane:** This is where you choose your navigator style and display or hide the forward and back arrows.

D. **The Story Menu:** Use this menu in Tableau Desktop to format the story or copy or export the current story point as an image. You can also clear the entire story here or show or hide the navigator and story title.

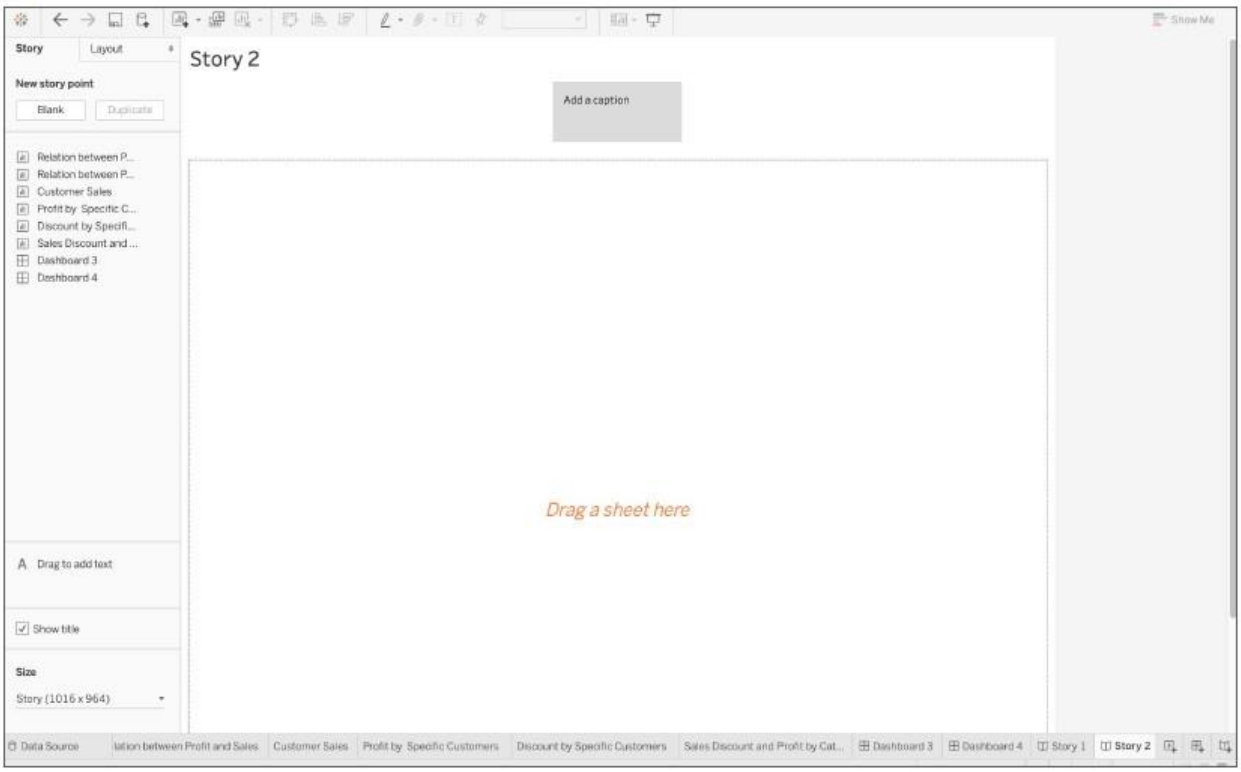
E. **The Story toolbar:** This toolbar appears when you mouse-over the navigator area. Use it to revert changes, apply updates to a story point, delete a story point, or create a new story point out of the current, customized one.

F. **The navigator:** The navigator allows you to edit and organize your story points. It's also how your audience will step through your story. To change the style of the navigator, use the Layout pane.



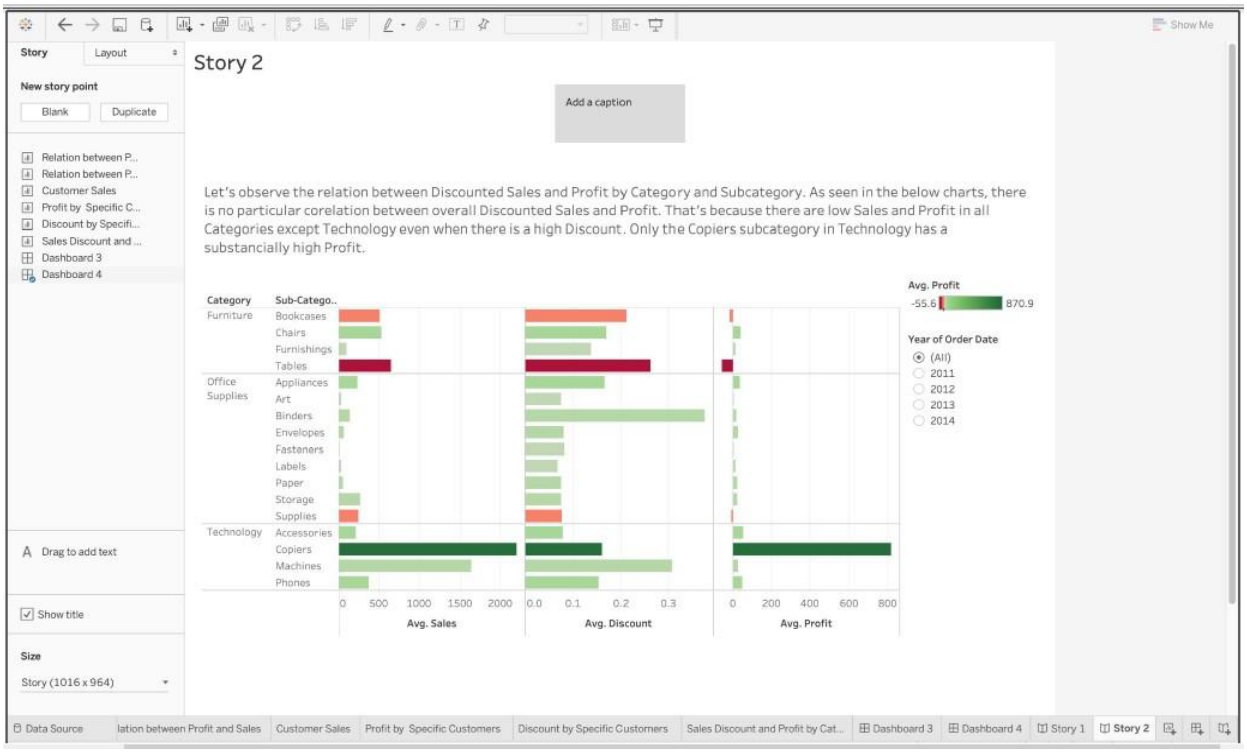
7.2.1.: How to create a Story? .

Step 1: Click on the new Story tab to create a new story. You can then add various sheets and dashboards to create a story point.



Step 2:

To start building your story, double-click a sheet on the left to feature it to your story purpose

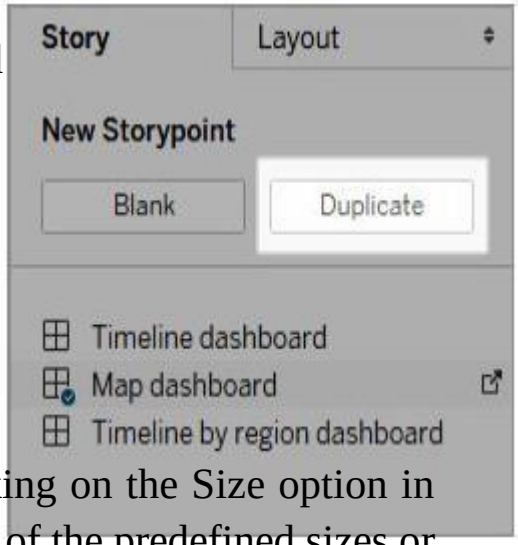


Step 3:

We can also add a caption to summarize the story point by clicking on "Add a caption" and then writing it. Let's add the caption "Relation between Discounted Sales and Profit by Category and Subcategory" to our example.

Starting with your next story point, you'll use the drill-down technique in

order to narrow down the scope of the story and keep the narrative moving.



1. To use your first story point as a baseline for your
next, click Duplicate under New Story point on the left.

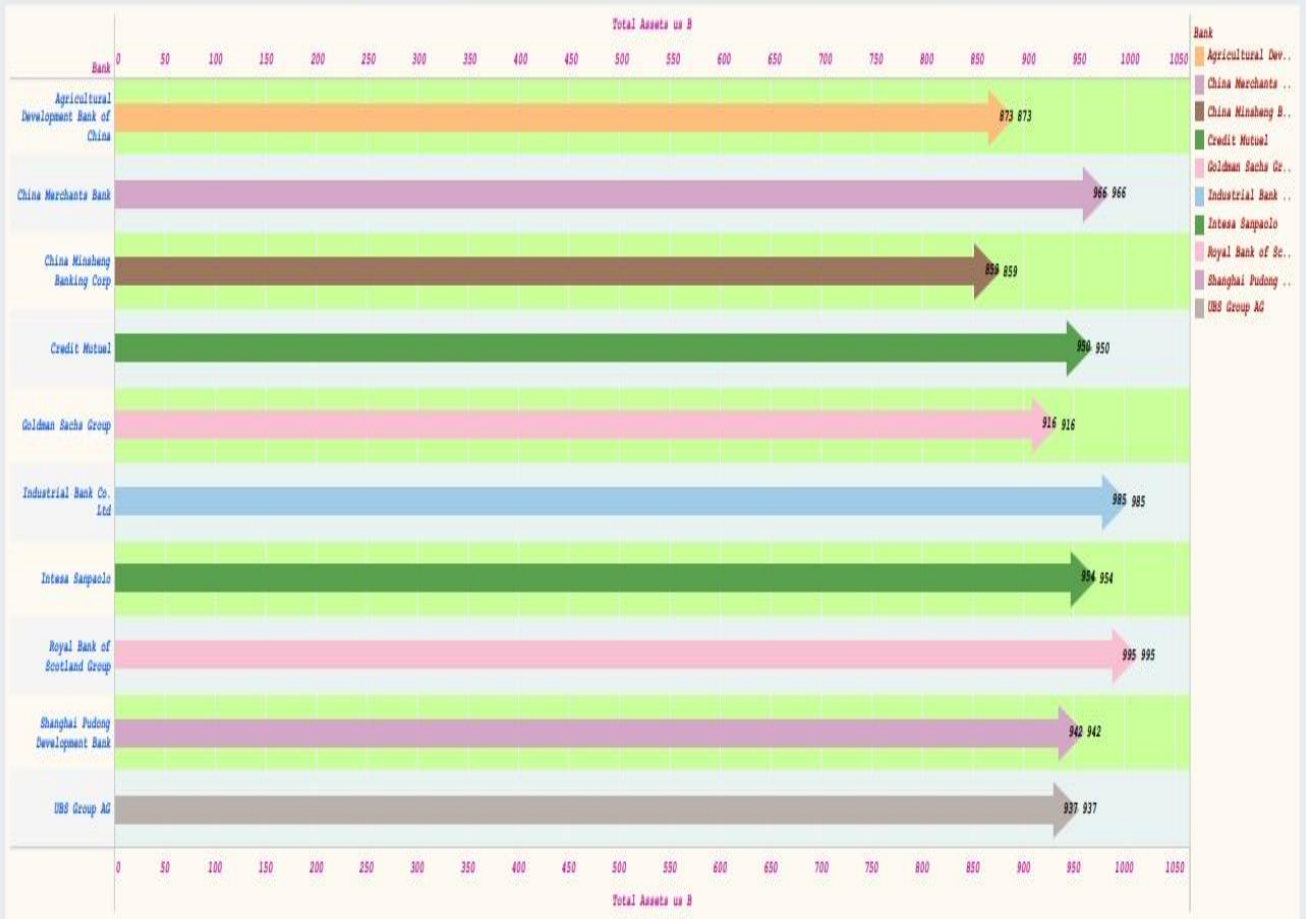
You can change the size of your story by clicking on the Size option in the lower-left corner. You can choose from one of the predefined sizes or set your custom size in pixels. You can also change the name of your story by right-clicking on your Story tab and choosing rename.

7.2.2.: Final Story :

Examine your work! Take a look at “Finishing touches” in action.

STORY BOARD

This graph explains me about the total asses.. | Total assests of the banks around the wor.. | Top banks according to country based on tota.. | Top10 countries with assest proportion | Country with total assests using funnel c.. | Total assests analysis according to year and..



CHAPTER – 8

WEB INTEGRATION

8.WEB INTEGRATION :

- Publishing helps us to track and monitor key performance metrics and to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

8.1 : Publishing dashboard and reports to tableau public :

Step 1:

Go to Dashboard/story, click on the share button on the top ribbon Give the

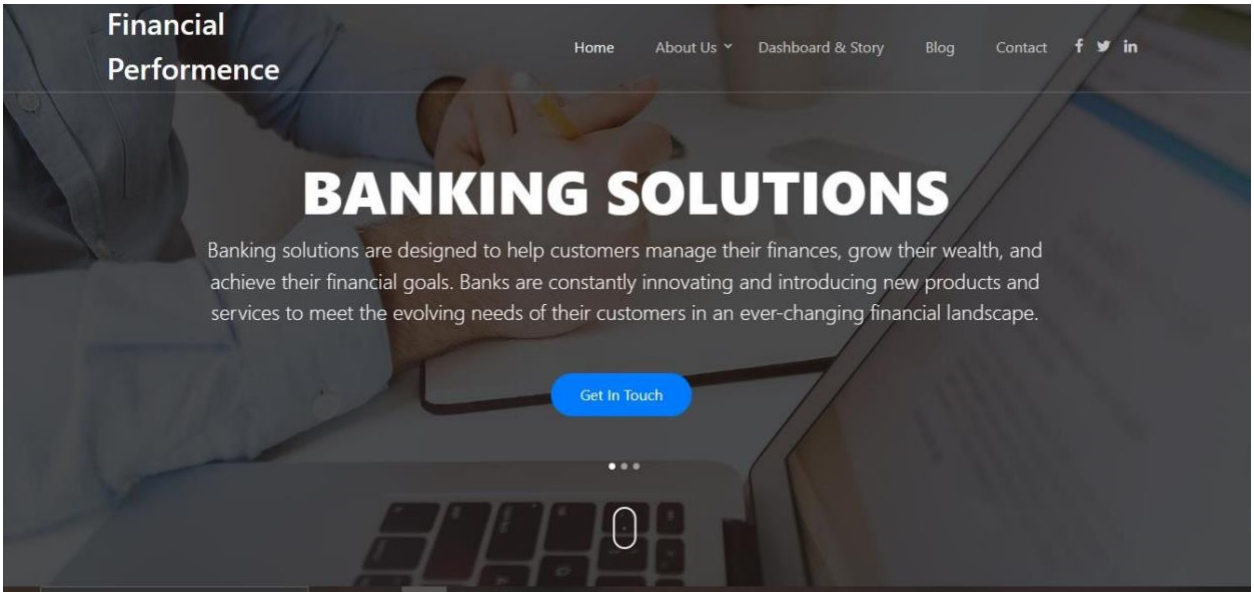
server address of your tableau public account and click on connect.

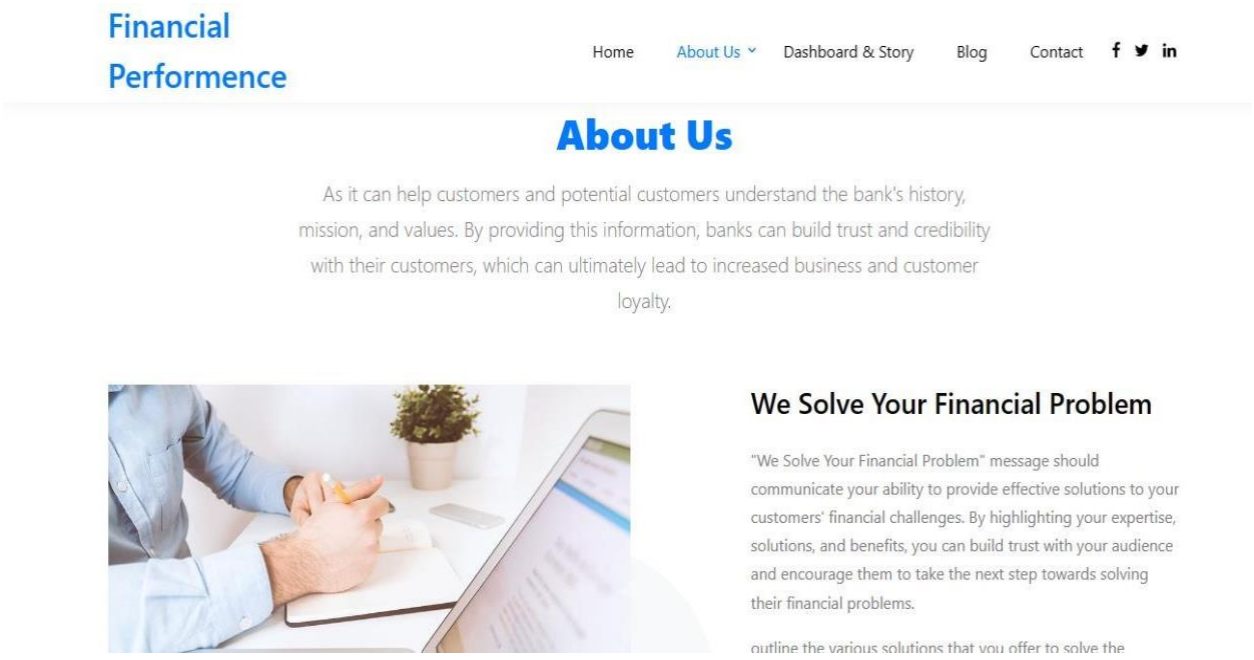
Step 2:

Once you click on connect it will ask you for the tableau public username and password. Once you login into your tableau public using the credentials, the particular visualization will be published into the tableau public

8.2. : Embed Dashboard & Story with Web Bootstrap :

Created the Web Integration : Finances — Website Template by Venkat





CHAPTER – 9

ADVANTAGES & DISADVANTAGES & APPLICATIONS

9. LIST OF ADVANTAGES AND DISADVANTAGES OF THE PROPOSED SOLUTION :

ADVANTAGES:

- Provides a detailed understanding of the financial health and risk profile of major banks
- Can help investors make informed decisions about investing in or partnering with major banks
- Can help banks themselves in identifying areas of weakness in their risk management practices
- Can inform regulatory oversight of the banking industry
- Can be useful for banks and other stakeholders in the banking industry in making strategic decisions related to mergers and acquisitions, expansion into new markets, and other initiatives

DISADVANTAGES:

- The analysis may be time-consuming and require significant resources to collect and analyze financial data
- The accuracy of the analysis may be limited by the availability and quality of data
- The analysis may be subject to biases or errors in the interpretation of the data

- The insights gained from the analysis may be specific to a particular point in time and may not reflect future changes in the financial or regulatory environment
- The analysis may not capture all relevant factors that could impact the financial performance of banks, such as macroeconomic conditions, geopolitical risks, or technological changes.

9.1.: APPLICATIONS :

THE AREAS WHERE THIS SOLUTION CAN BE APPLIED :

Data analytics can be applied in many different ways in a comprehensive analysis of financial performance for leading banks. Some possible areas where data analytics may be applied include:

I. **Financial Statement Analysis:** Data analytics can be used to analyze a bank's financial statements, such as balance sheets, income statements, and cash flow statements. This can provide insights into the bank's financial performance, liquidity, and solvency.

II. **Risk Management:** Data analytics can be used to identify and analyze potential risks faced by banks, such as credit risk, market risk, and operational risk. This can help banks to develop effective risk management strategies.

III. **Customer Analytics**: Data analytics can be used to analyze customer behavior and preferences, such as transaction history, demographic

information, and product usage. This can help banks to develop targeted marketing strategies and improve customer retention.

IV. **Fraud Detection:** Data analytics can be used to detect potential fraudulent activities, such as money laundering or fraudulent loan applications. This can help banks to prevent financial losses.

CHAPTER - 10

CONCLUSION & FUTURE SCOPE

10. CONCLUSION SUMMARIZING THE ENTIRE WORK AND FINDINGS :

1. **Improved understanding of financial performance:** Tableau can help analysts and stakeholders to gain a better understanding of the financial performance of leading banks. The use of data analytics can help to identify trends, patterns, and outliers in financial data, allowing for more accurate and informed decision-making.

2. **Identification of risks and opportunities:** Data analytics with Tableau can help to identify potential risks and opportunities for banks. This can be particularly valuable in the context of risk management, where the ability to identify and mitigate risks can help to prevent financial losses.

3. **Improved communication of insights:** Tableau can be used to create interactive and visually engaging dashboards and reports that can be easily shared with stakeholders. This can help to improve communication of insights and ensure that all relevant parties have access to the same information.

4. **Increased efficiency:** By automating the data analytics process, Tableau can help to increase efficiency and reduce the time and resources required for

analysis. This can allow for more frequent analysis and more rapid response to changes in the financial environment.

Overall, the use of data analytics with Tableau in the comprehensive analysis of financial performance for leading banks can provide valuable insights and improve decision-making for stakeholders in the banking industry.

FUTURE SCOPE :

ENHANCEMENTS THAT CAN BE MADE IN THE FUTURE :

A comprehensive analysis of financial performance using data analytics with Tableau involves using various financial metrics and performance indicators to gain insights into the financial health of leading banks.

I. To begin with, data on financial statements such as balance sheets, income statements, and cash flow statements are collected from leading banks. The data is then cleaned, processed, and transformed into a format suitable for analysis using Tableau.

II. Next, various financial metrics are calculated and visualized using Tableau. These metrics may include measures of profitability, such as return on assets (ROA) and return on equity (ROE), as well as measures of liquidity, such as the current ratio and the quick ratio. Other financial metrics that may be calculated include the debt-to-equity ratio, asset turnover ratio, and gross profit margin.

III. Once the financial metrics are calculated and visualized using Tableau, they can be analyzed to gain insights into the financial performance of leading banks. For example, if the ROA and ROE of a bank are consistently higher than those of its competitors, this may indicate that the bank is better at generating profits from its assets and equity.

IV. Similarly, if a bank has a high debt-to-equity ratio, this may indicate that the bank is highly leveraged and may be at greater risk of default if economic conditions worsen.

Overall, a comprehensive analysis of financial performance using data analytics with Tableau can provide valuable insights into the financial health of leading banks, enabling stakeholders to make informed decisions about investments, risk management, and other strategic initiatives.