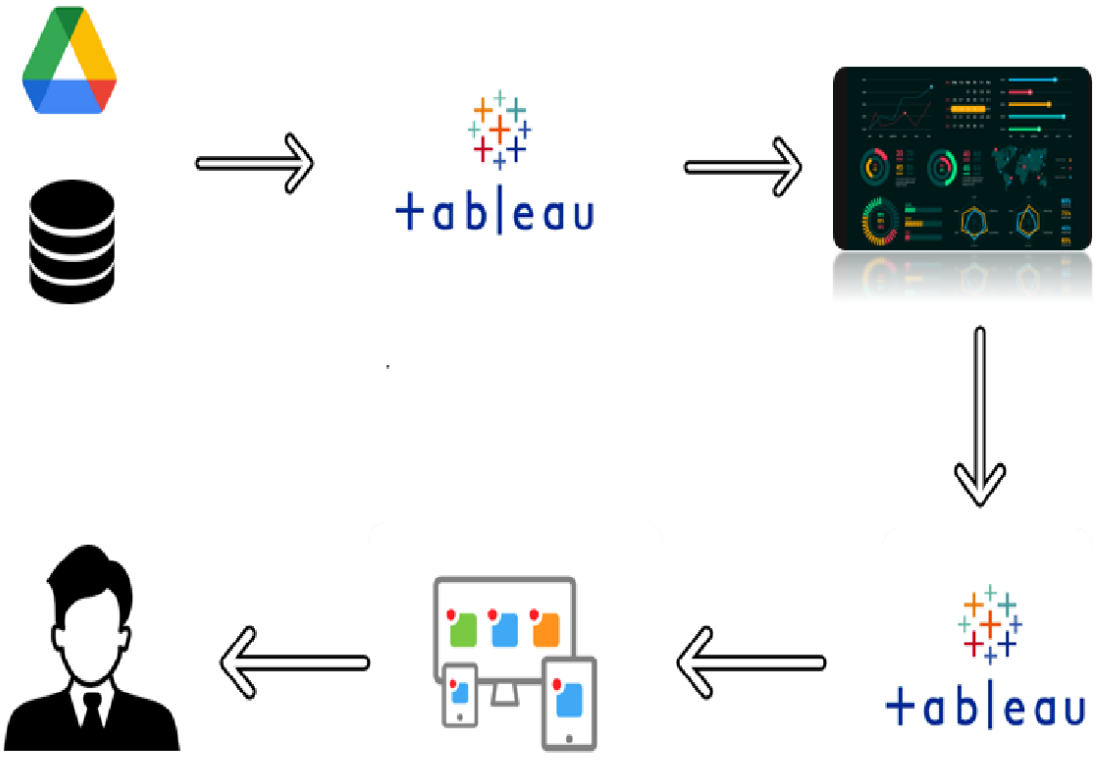
Graphical Advantages: A tableau Exploration of Top Manga

Since the 1950s, manga has become an increasingly major part of the Japanese publishing industry By 1995, the manga market in Japan was valued at ¥586.4 billion ($6–7 billion) with annual sales of 1.9 billion manga books and manga magazines (also known as manga anthologies) in Japan (equivalent to 15 issues per person). In 2020 Japan's manga market value hit a new record of ¥612.6 billion due to the fast growth of digital manga sales as well as increase of print sales in 2022 Japan's manga market hit yet another record value of ¥675.9 billion. Manga have also gained a significant worldwide readership. Beginning with the late 2010s manga started massively outselling American comics. Now the Manga want to know the Best-Selling Mangas from Past to Now.

Technical Architecture:



Project Flow

- To accomplish this, we have to complete all the activities listed below,

- Define Problem / Problem Understanding
    - Specify the business problem
    - Business requirements
    - Literature Survey
    - Social or Business Impact.
- Data Collection & Extraction from Database
    - Collect the dataset,
    - Storing Data in DB
    - Perform SQL Operations
    - Connect DB with Tableau
- Data Preparation
    - Prepare the Data for Visualization
- Data Visualizations
    - No of Unique Visualizations
- Dashboard
    - Responsive and Design of Dashboard
- Story
    - No of Scenes of Story
- Performance Testing
    - Amount of Data Rendered to DB ‘
- Web Integration
    - Dashboard and Story embed with UI With Flask
- Project Demonstration & Documentation
    - Record explanation Video for project end to end solution
    - Project Documentation-Step by step project development procedure

Tableau

Milestone 1: Define Problem / Problem Understanding

Activity 1: Specify the business problem: -

Refer Project Description

Activity 2: Business requirements: -

The Business Requirements is for analysing the Best-selling Manga to know which manga has highest sales. Include identifying KPIs, comparing the manga with Average sales and approximate sales identifying affecting factors, creating interactive dashboards and reports, making data-driven decisions, comparing to industry average and creating forecasting models for future performance. The ultimate goal is to gain insights and Show Sufficient Information through data visualization techniques.

Activity 3: Literature Survey: -

A literature survey for a Best-Selling Manga project would involve researching and reviewing existing studies, articles, and other publications on the topic of Manga Series. The survey would aim to gather information on current classification systems, their strengths and weaknesses, and any gaps in knowledge that the project could address. The literature survey would also look at the methods and techniques used in previous Manga projects, and any relevant data or findings that could inform the design and implementation of the current project.

Activity 4: Social or Business Impact: -

Social Impact: By providing accurate and up-to-date information on Selling Manga's project can help Company make more informative about the Top Selling Mangs and their strengths & weakness

Business Model/Impact: By providing information on the properties and interactions of Selling Mangas, the company will know what are the low selling manga's and try to improve their low selling manga's

Tableau

Milestone 2: Data Collection & Extraction from Database

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, and evaluate outcomes and generate insights from the data.

Activity 1: Collect the dataset

Please use the link to download the dataset

Activity 1.1: Understand the data

Data contains all the meta information regarding the columns described in the CSV file. we have provided CSV file.

Best Selling Manga.csv

Manga.csv

Column Description for Best Selling Manga.csv.

Manga Series: - It is Dimension column shows Manga series names.

Authors: - It is also a dimension column shows the author of each manga.

Publisher: - It shows Publisher of each Manga Series.

Demographic: - It shows the demographic data of manga**.**

Serialized: - It shows the Year Started the Manga and it ends year or continuing.

No. of collected volumes: - It is measuring Column shows the Volume of Manga Series.

Approximate sales in million(s): - It shows the Approximate sales of the Manga.

Average sales in million(s): - It shows the Average Sales of the Year.

Tableau

Activity 2: Storing Data in DB & Perform SQL Operations

Importing the data to MySQL:

Manga.csv

Connecting The MYSQL to Tableau:

https://drive.google.com/file/d/1LovqaNPKu4Wb9HtI8DqflGJHv4Lly3dD/view?usp=drive_link

Milestone 3: Data Preparation

Activity 1: Prepare the Data for Visualization

Preparing the data for visualization, Sometimes the data is not in correct format and we have to transform the data into a right format. Preparing data means involving cleaning and replacing the null values and missing Values. This process makes the data to understand easily and to make visualizations easily.

Milestone 4: Data Visualization

Activity 1: Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

Activity 1: No of Unique Visualizations

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyse the Best-Selling Manga.

Activity 1.1: Manga Data Analysis

https://drive.google.com/file/d/1bneRstrtSh_cOpZTaq5rCPGKbGSLfmu9/view?usp=drive_link

Activity 1.2: Rank of Manga

https://drive.google.com/file/d/1bKIFUTDepuu1sn7b9E9-GoY2PTMvxDEV/view?usp=drive_link

Activity 1.3: Manga score according to the year it is published

https://drive.google.com/file/d/1mFNAfV4-PKGNY5q2DxRjJUIlIZx-Nnxc/view?usp=drive_link

Activity 1.4: Analyzing the type of Manga and the year it is published

https://drive.google.com/file/d/14WCcNNHUPBJzd12DIi_re9Hq0goD5fwB/view?usp=drive_link

Activity 1.5: Types and year
https://drive.google.com/file/d/1hWb9lffWLcVveAkdQSb2KpJnj1DqGN2u/view?usp=drive_link

Activity 1.6: Members and F1
https://drive.google.com/file/d/1gITIAFEpKWTeJPLLtGw2j2-NFeTkSbvD/view?usp=drive_link

Activity 1.7: Values vs Count of Worksheet

https://drive.google.com/file/d/1n4G8TAmY252NS-ZxlZ1NjPOVvqQF_R1f/view?usp=drive_link

Milestone 5: Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.

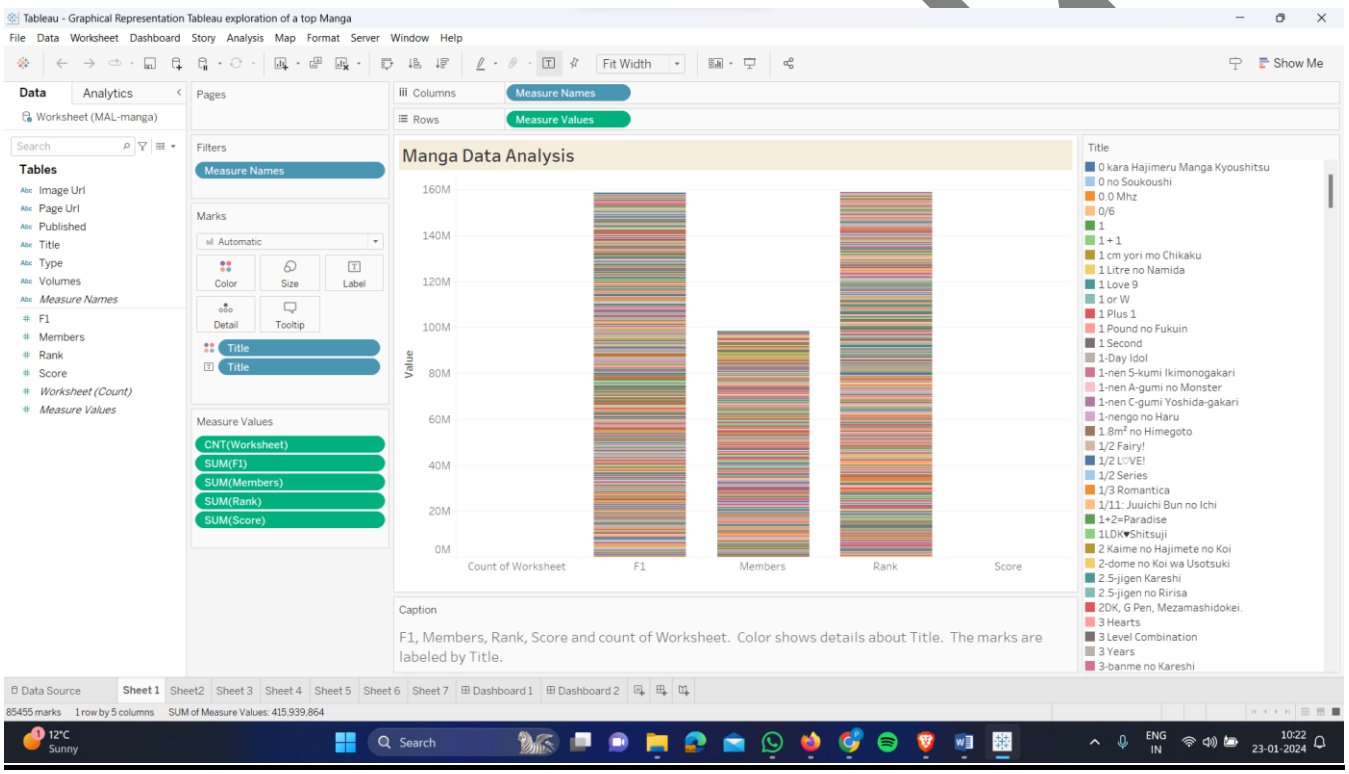
Activity :1- Responsive and Design of Dashboard

Once you have created views on different sheets in Tableau, you can pull them into a dashboard.

Explanation Video:

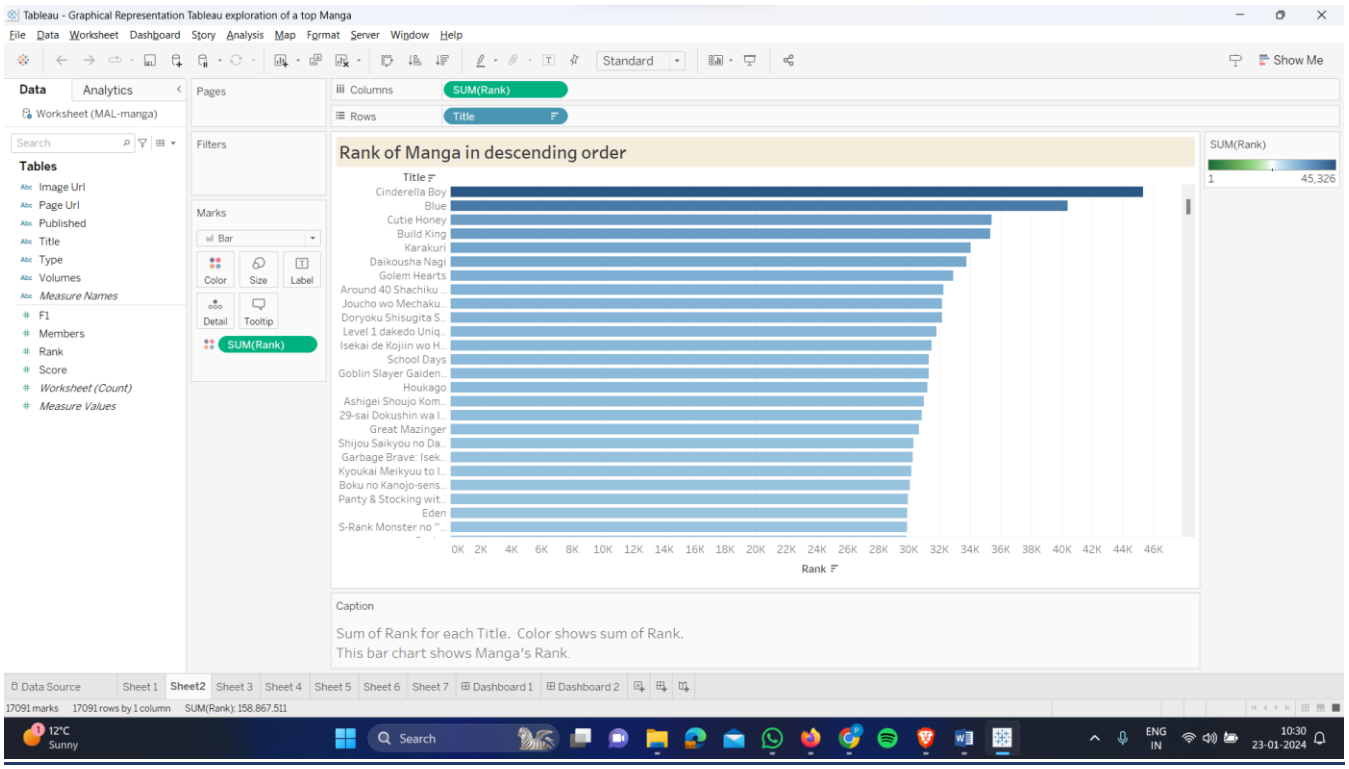
Project Demo Link

Tableau



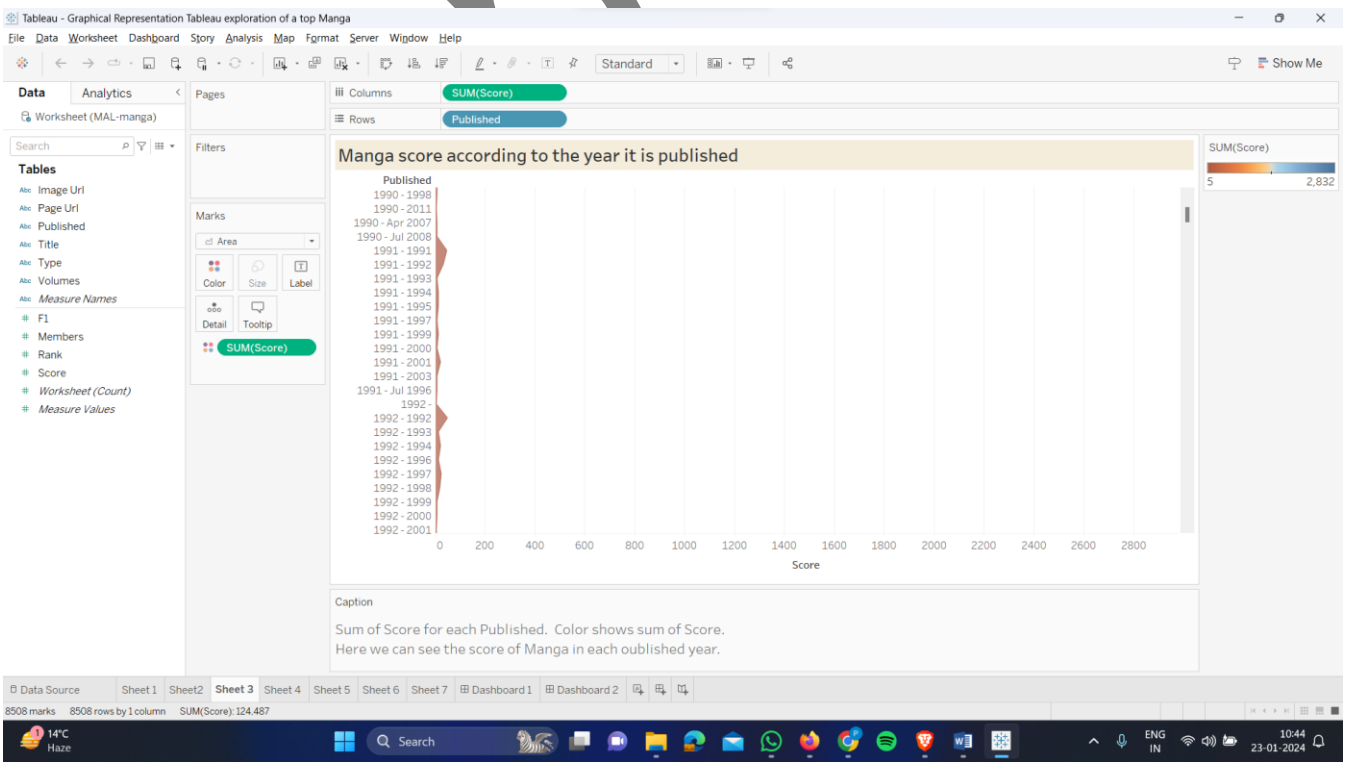
Milestone 6: Story

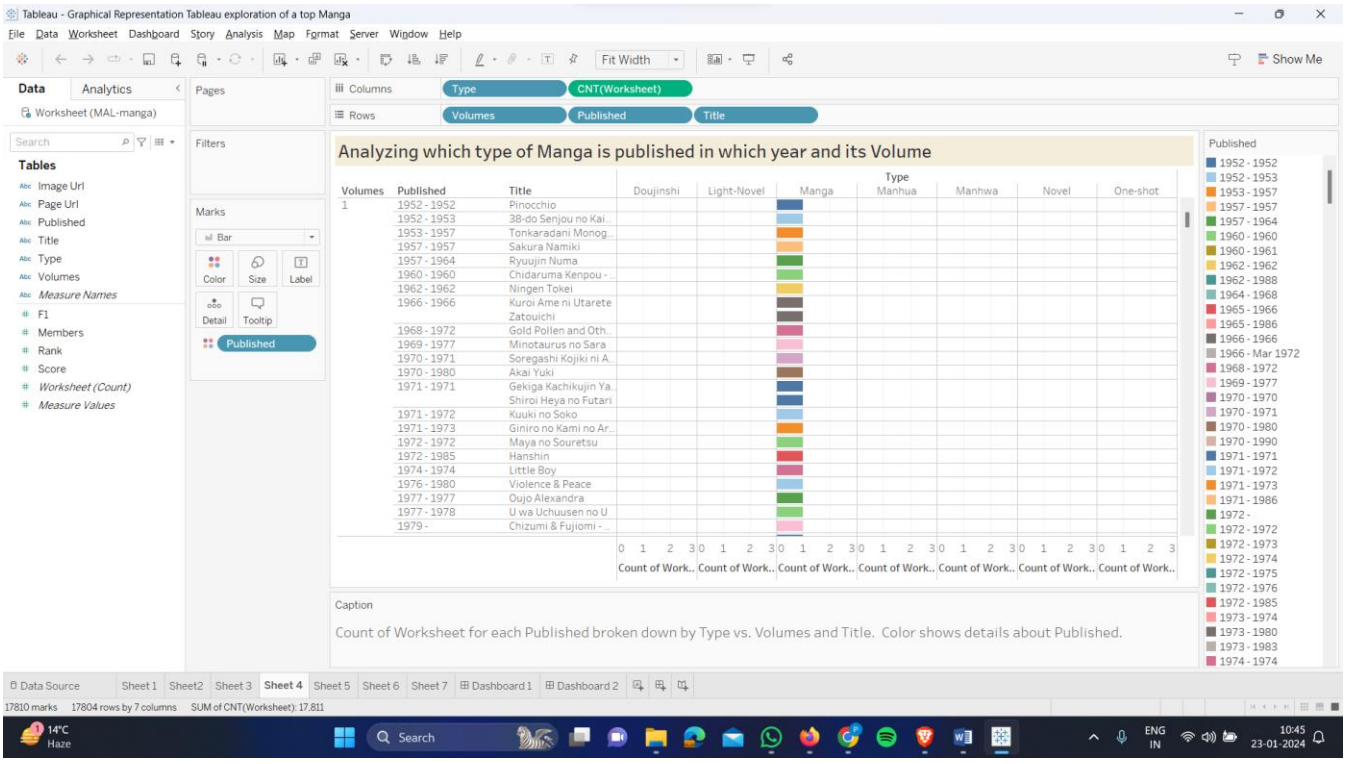
A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos



Milestone 7: Performance Testing

Performance testing on Tableau involves evaluating the responsiveness and scalability of Tableau software and its associated infrastructure. It focuses on assessing how Tableau performs under different scenarios, such as handling large datasets, complex visualizations, concurrent user access, and heavy data querying. By conducting performance testing on Tableau, organizations can ensure that the software delivers optimal performance, responsiveness, and stability, enabling users to analyse and visualize data efficiently and effectively.





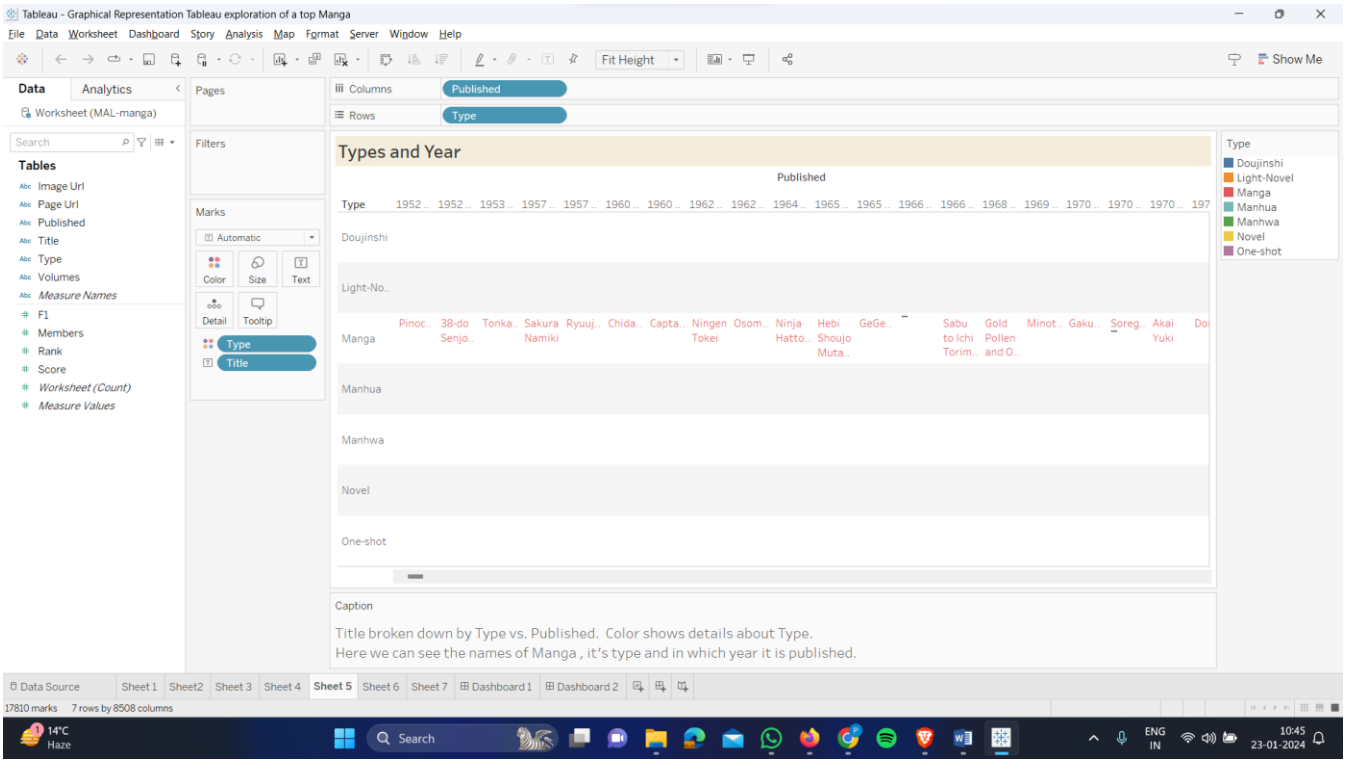
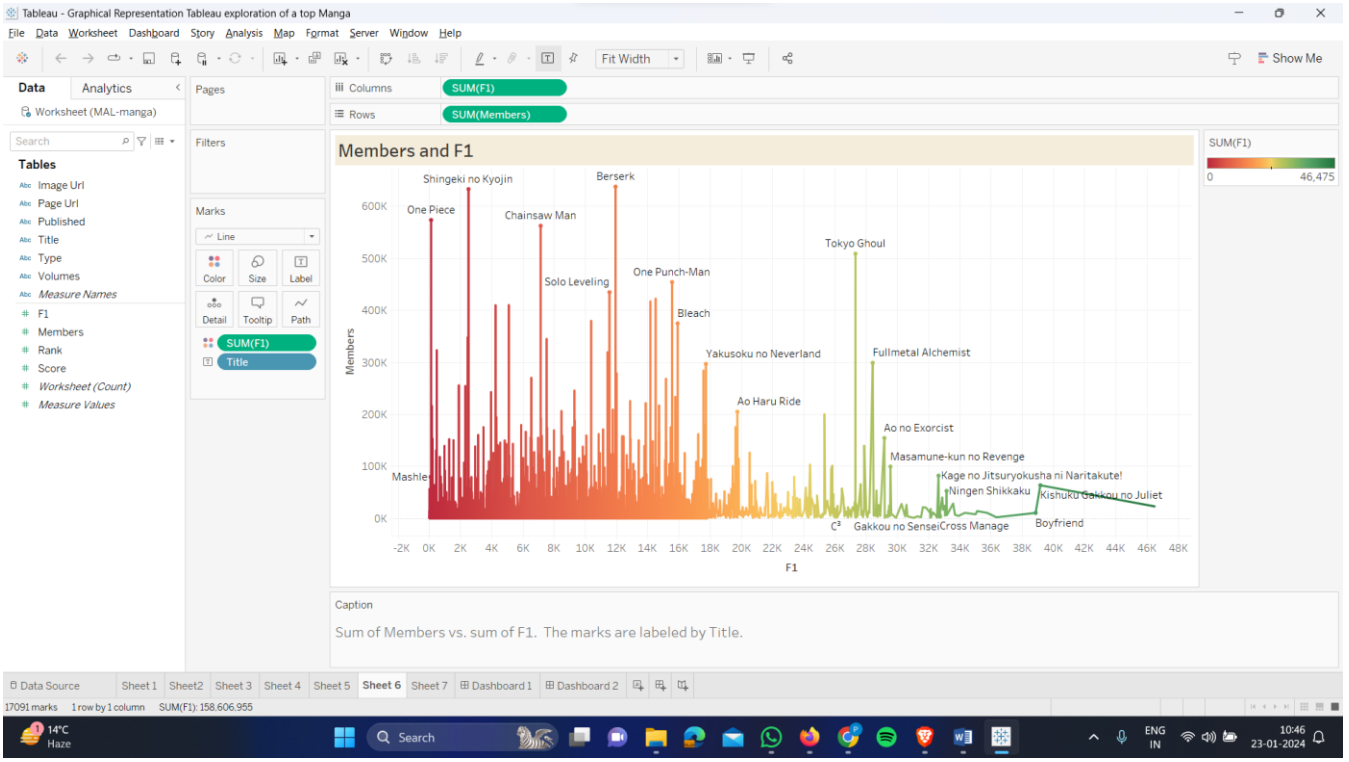


Tableau - Graphical Representation Tableau exploration of a top Manga
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Fit Height
Show Me
Data Analytics
Worksheet (MAL-manga)
Tables
Image Url
Page Url
Published
Title
Type
Volumes
Measure Names
F1
Members
Rank
Score
Worksheet (Count)
Measure Values
Pages
Filters
Marks
Automatic
Color Size Text
Detail Tooltip
Type
Title
Columns Published
Rows Type
Types and Year
Published
Type
Doujinshi
Light-No..
Manga
Manhua
Manhwa
Novel
One-shot
Type
Doujinshi
Light-Novel
Manga
Manhua
Manhwa
Novel
One-shot
Caption
Title broken down by Type vs. Published. Color shows details about Type.
Here we can see the names of Manga , it's type and in which year it is published.
Data Source Sheet 1 Sheet2 Sheet 3 Sheet 4 Sheet 5 Sheet 6 Sheet 7 Dashboard 1 Dashboard 2
17810 marks 7 rows by 8508 columns
14°C Haze
Search
ENG IN
10:45 23-01-2024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Worksheet (MAL-manga)
Tables
Image Url
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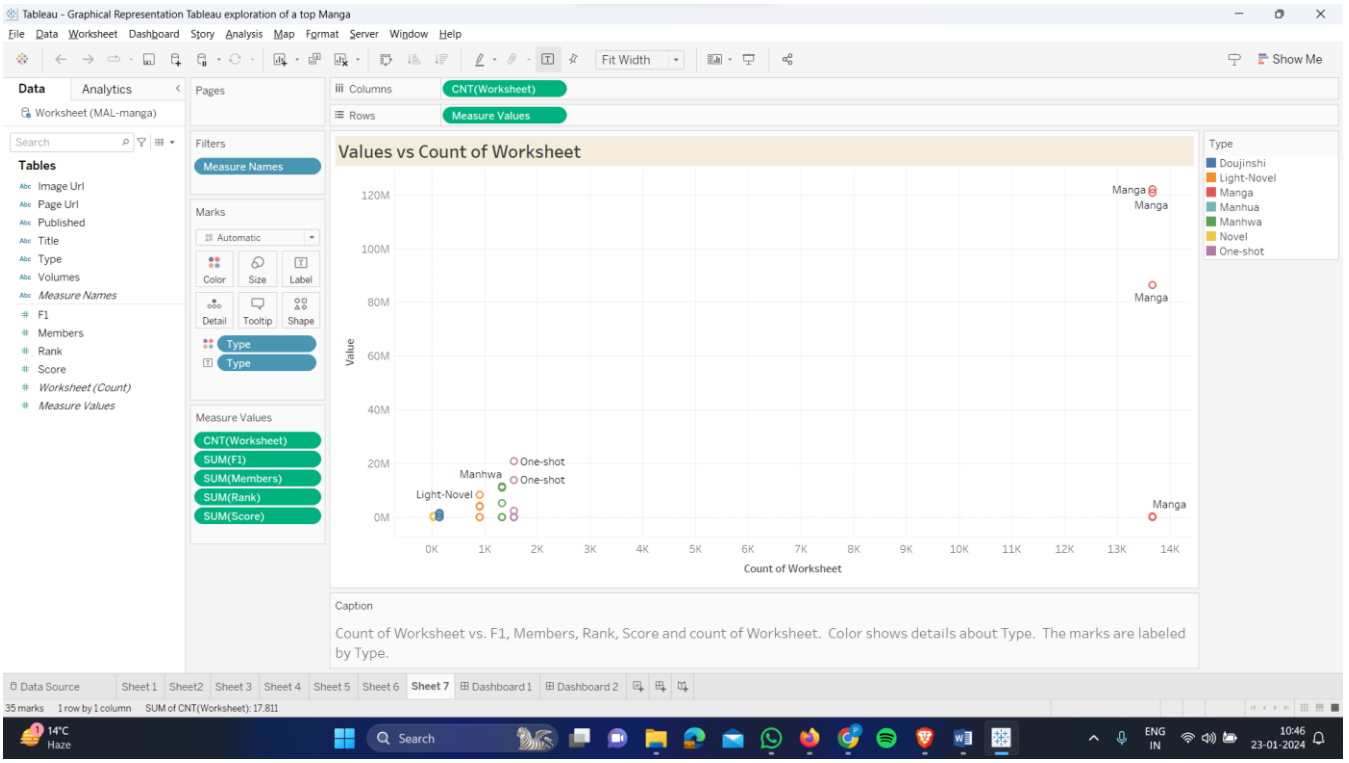
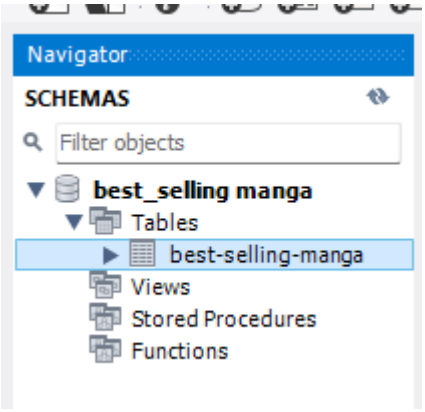
Published
Title
Type
Volumes
Measure Names
F1
Members
Rank
Score
Worksheet (Count)
Measure Values
Pages
Filters
Marks
Line
Color Size Label
Detail Tooltip Path
SUM(F1)
Title
Columns SUM(F1)
Rows SUM(Members)
Members and F1
Members
F1
Shingeki no Kyojin
Berserk
One Piece
Chainsaw Man
Tokyo Ghoul
Solo Leveling
One Punch-Man
Bleach
Yakusoku no Neverland
Fullmetal Alchemist
Ao Haru Ride
Ao no Exorcist
Masamune-kun no Revenge
Kage no Jitsuryokusha ni Naritakute!
Ningen Shikkaku
Kishuku Gakkou no Juliet
Mashle
Gakkou no Sensei
Cross Manage
Boyfriend
SUM(F1)
0
46,475
Caption
Sum of Members vs. sum of F1. The marks are labeled by Title.
Data Source Sheet 1 Sheet2 Sheet 3 Sheet 4 Sheet 5 Sheet 6 Sheet 7 Dashboard 1 Dashboard 2
17091 marks 1 row by 1 column SUM(F1): 158,606,955
14°C Haze
Search
ENG IN
10:46 23-01-2024



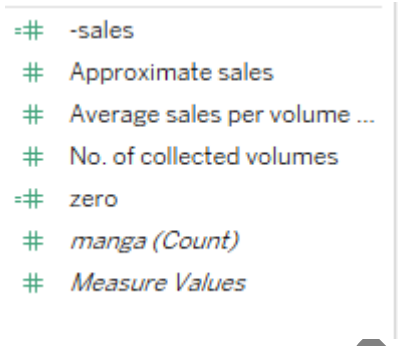
Activity 1: Amount of Data Rendered to DB

- The amount of data that is rendered to a database depends on the size of the dataset and the capacity of the database to store and retrieve data.

- Open the MySQL Workbench, go to the database then click to expand the tables, select the table and click on (i) button to get the information related to table such as column count, table rows etc.



No of Calculated fields

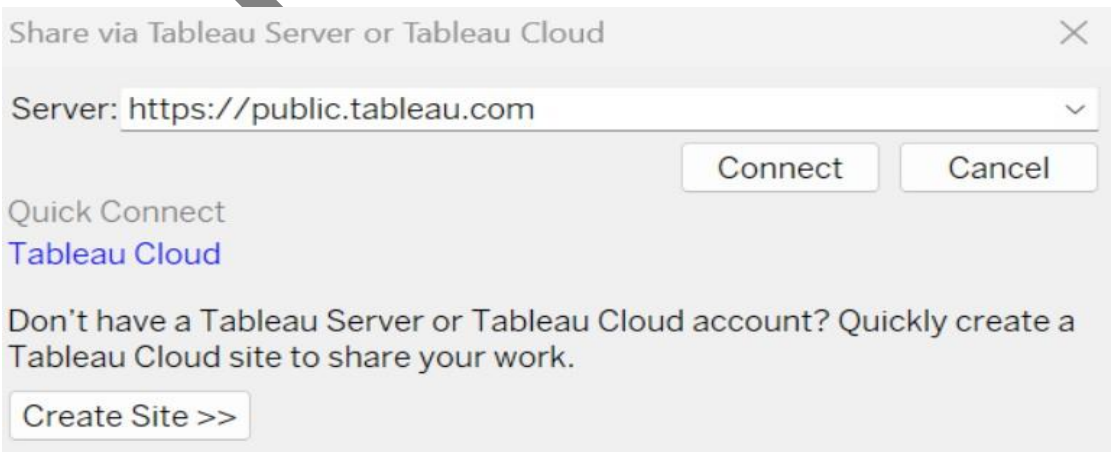


Milestone 8: Web integration

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

Publishing dashboard and reports to tableau public

Step 1: Go to Dashboard/story, click on share button on the top ribbon



Tableau

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

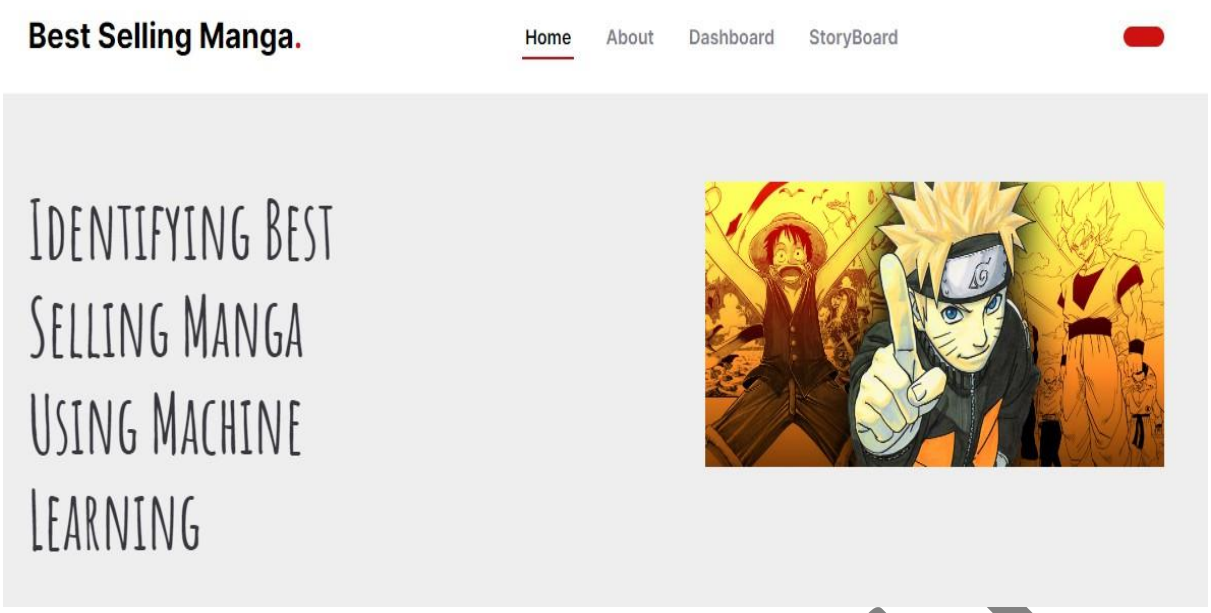
Step 2: Once you click on connect it will ask you for tableau public user name and password

Once you login into your tableau public using the credentials, the particular visualization will be published into tableau public

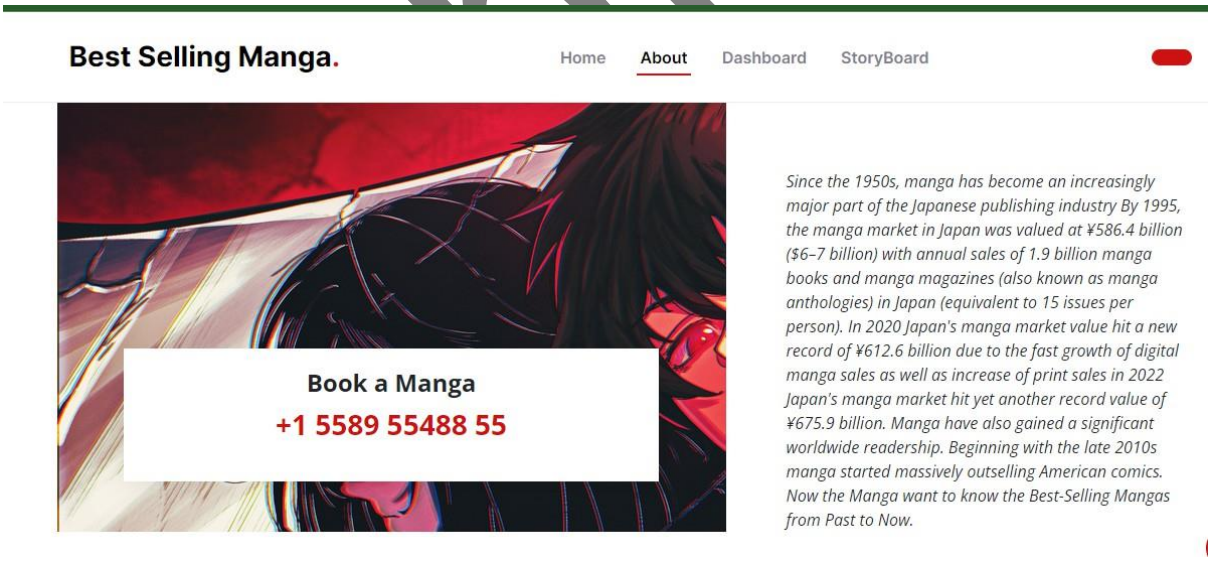
Note: While publishing the visualization to the public, the respective sheet will get published when you click on share option.

Tableau

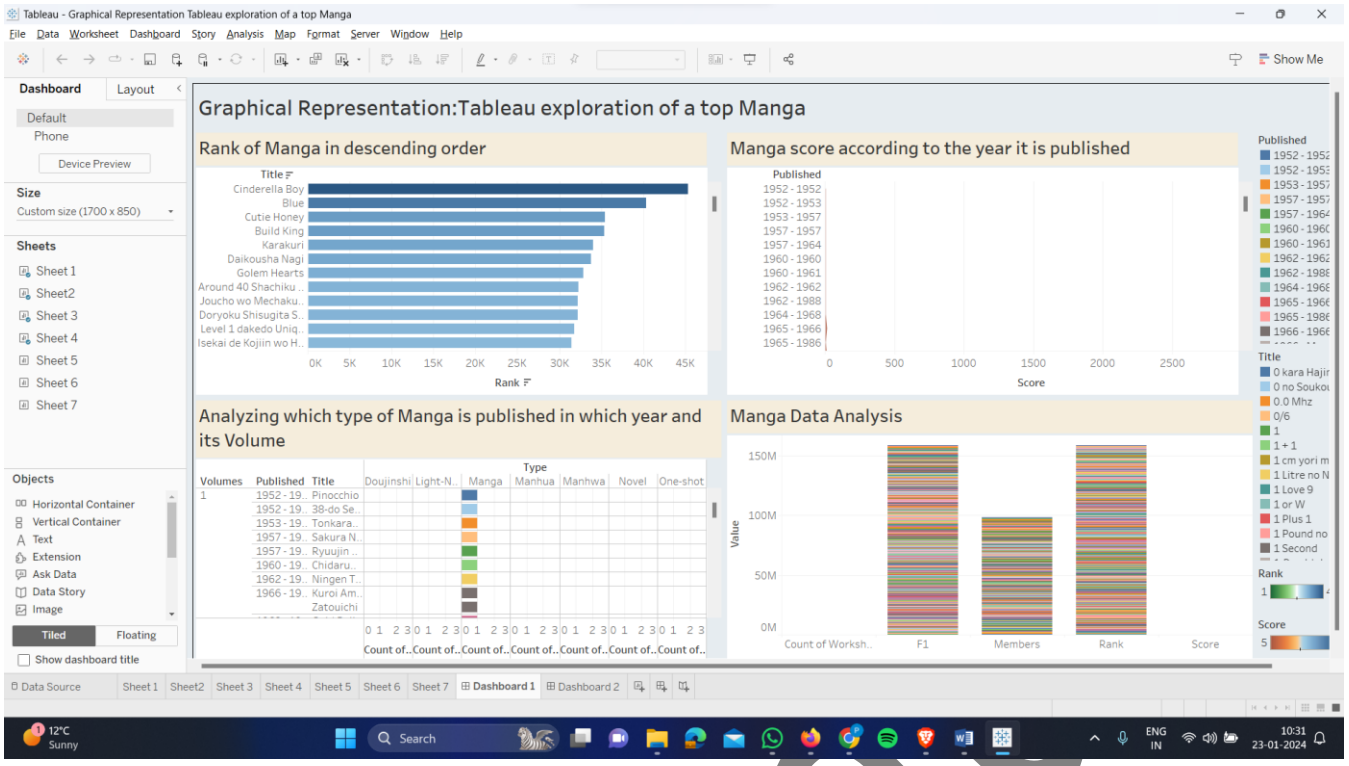
Home Page:



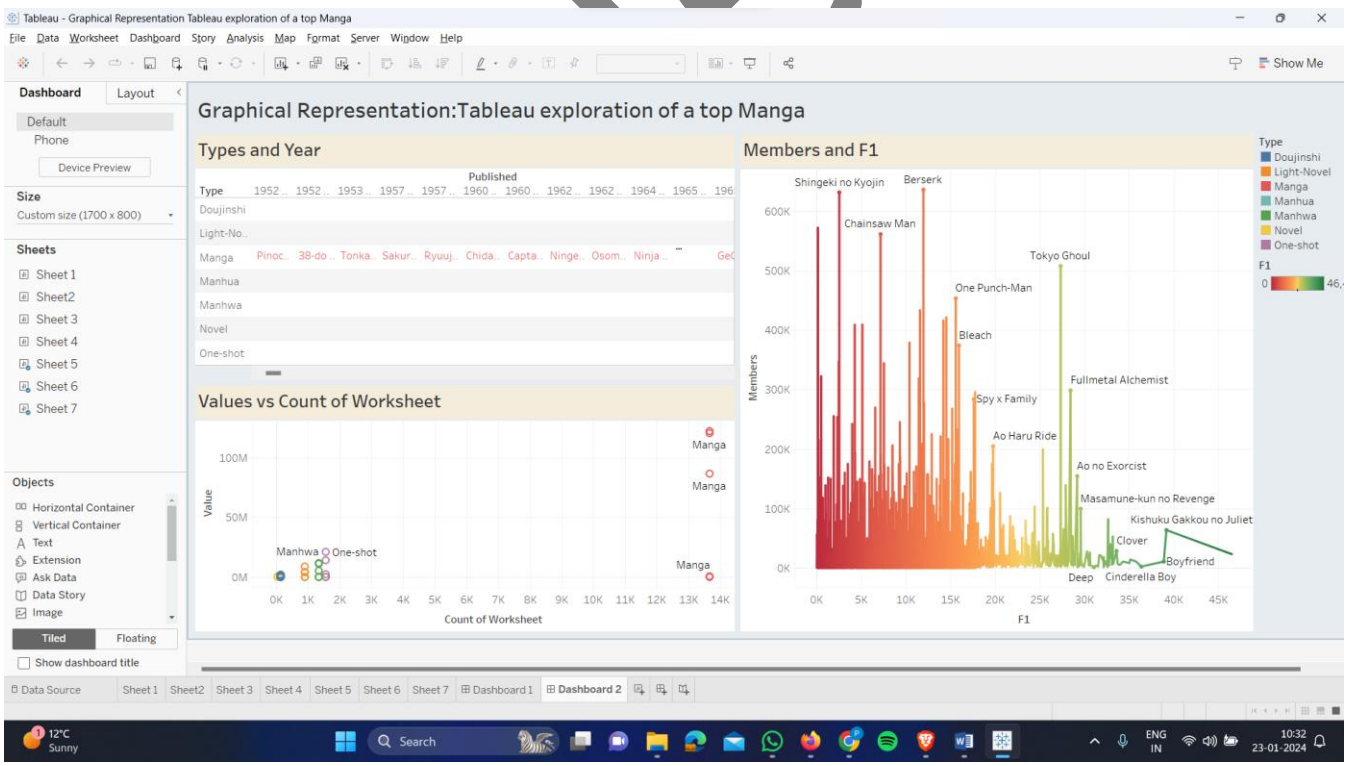
About Page:



Dashboard Page:



Story Board Page:



Explanation video: -

Explanation Video

Bootstrap Link: - http://127.0.0.1:4090

Milestone 9: Project Demonstration & Documentation

Below mentioned deliverables to be submitted along with other deliverables

Activity 1: - Record explanation Video for project end to end solution

Activity 2: - Project Documentation-Step by step project development procedure

Tableau