Uncovering the Gaming Industry's Hidden Gems: A Comprehensive Analysis of Video Game Sales

Milestone 1: Define Problem / Problem Understanding

Specify the business problem:
Refer Project Description

Business requirements:
Business requirements for analyzing video game sales would include data on the sales of specific video games, information on the gaming industry as a whole, and data on consumer demographics and purchasing habits. This information can be used to identify trends and make informed decisions on marketing and development
strategies for future video game releases. Additionally, it's also important to have information on platform sales, region, and competition in the market.

Literature Survey (Student Will Write):
Video Game Industry Analysis: Insights and Forecast- by Research and Markets (2016)
This report provides a comprehensive analysis of the global video game industry, "Video
Game Industry: Current Trends and Future Opportunities" by PwC (2019) - This report
analyzes the current state of the global video game industry, including market size and
growth, revenue streams, and consumer demographics. It also explores future opportunities for the industry, such as the potential for virtual reality and mobile gaming.
"Global Video Game Market: Size, Trends & Forecasts (2018-2022)" by Daedal Research (2018) - This report provides a detailed analysis of the global video game market, including market size and growth, segmentation by platform, and regional trends. It also includes market forecasts for the next five years.
"Video Game Sales by Platform: A Comparative Analysis" by Newzoo (2017) - This
report compares the sales of video games across different platforms, including consoles,

PC, and mobile. It also includes data on the top-selling games for each platform and
analyses trends in the industry.

Social or Business Impact:

Social Impact:

Increased social interaction and connection through online multiplayer gaming. Increased awareness and representation of diverse groups in the gaming industry. Increased accessibility to gaming through mobile and online platforms.Increased use
of gaming as a form of therapy or rehabilitation

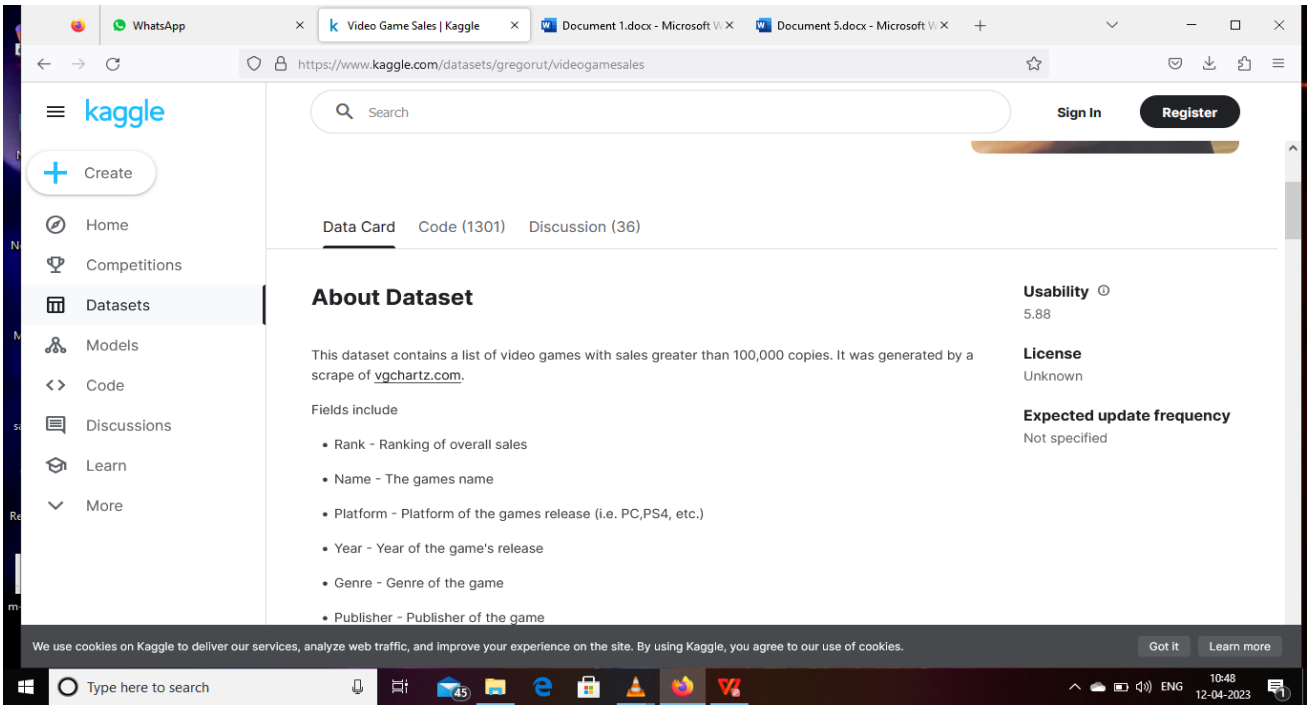
Business Impact:

Increased revenue for the gaming industry. Increased competition among game developers and publishers. Increased investment in research and development for new technologies and platforms. Increased use of data analytics to track player behaviour and improve game design. Increased use of microtransactions and in-game purchases for additional revenue streams

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.

Collect the dataset:


WhatsApp
Video Game Sales | Kaggle
Document 1.docx - Microsoft W
Document 5.docx - Microsoft W
https://www.kaggle.com/datasets/gregorut/videogamesales
kaggle
Search
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Create
Home
Competitions
Datasets
Models
Code
Discussions
Learn
More
Data Card
Code (1301)
Discussion (36)
About Dataset
This dataset contains a list of video games with sales greater than 100,000 copies. It was generated by a scrape of vgchartz.com.
Fields include
• Rank - Ranking of overall sales
• Name - The games name
• Platform - Platform of the games release (i.e. PC,PS4, etc.)
• Year - Year of the game's release
• Genre - Genre of the game
• Publisher - Publisher of the game
Usability
5.88
License
Unknown
Expected update frequency
Not specified
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Got it
Learn more
Type here to search
ENG
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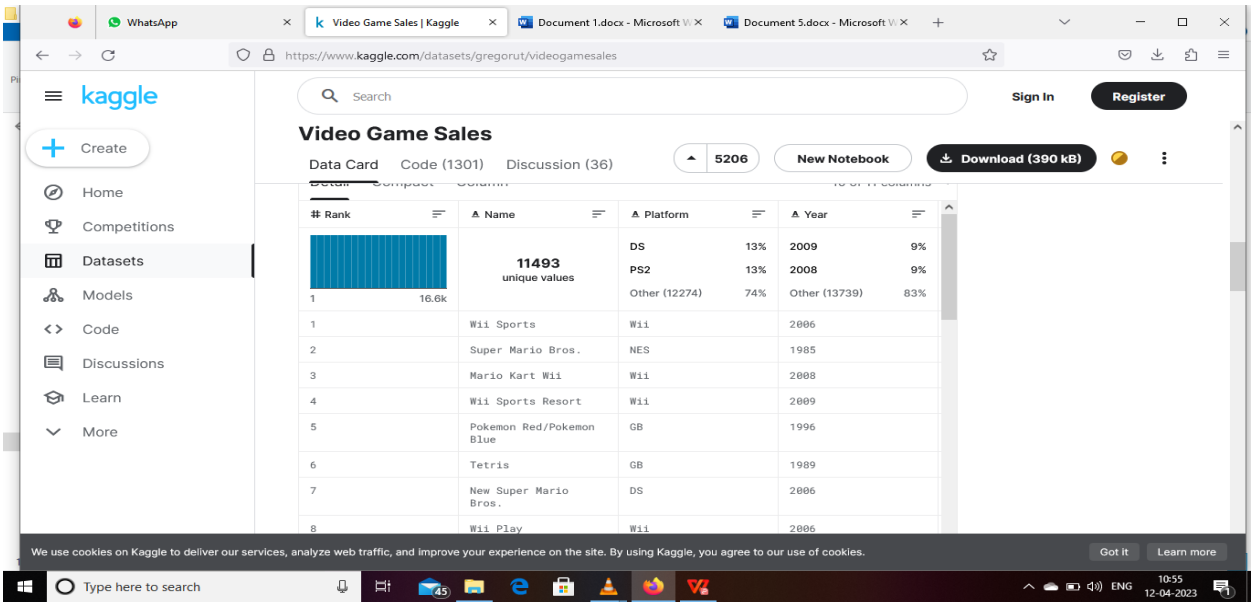
12-04-2023


WhatsApp
Video Game Sales | Kaggle
Document 1.docx - Microsoft W
Document 5.docx - Microsoft W
https://www.kaggle.com/datasets/gregorut/videogamesales
kaggle
Search
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Home
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Datasets
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Code
Discussions
Learn
More
Video Game Sales
Data Card
Code (1301)
Discussion (36)
5206
New Notebook
Download (390 kB)
Rank
Name
Platform
Year
11493
unique values
DS 13%
PS2 13%
Other (12274) 74%
2009 9%
2008 9%
Other (13739) 83%
1 16.6k
1 Wii Sports Wii 2006
2 Super Mario Bros. NES 1985
3 Mario Kart Wii Wii 2008
4 Wii Sports Resort Wii 2009
5 Pokemon Red/Pokemon Blue GB 1996
6 Tetris GB 1989
7 New Super Mario Bros. DS 2006
8 Wii Play Wii 2006
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Got it
Learn more
Type here to search
ENG
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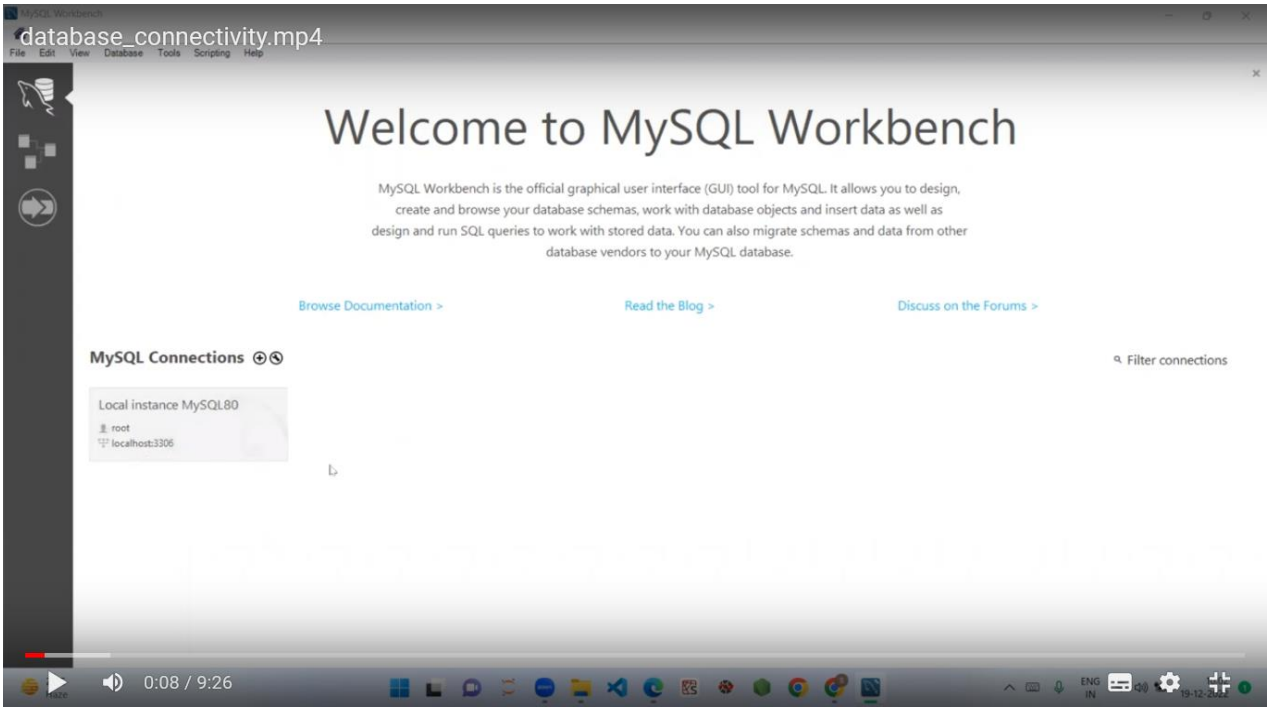
12-04-2023

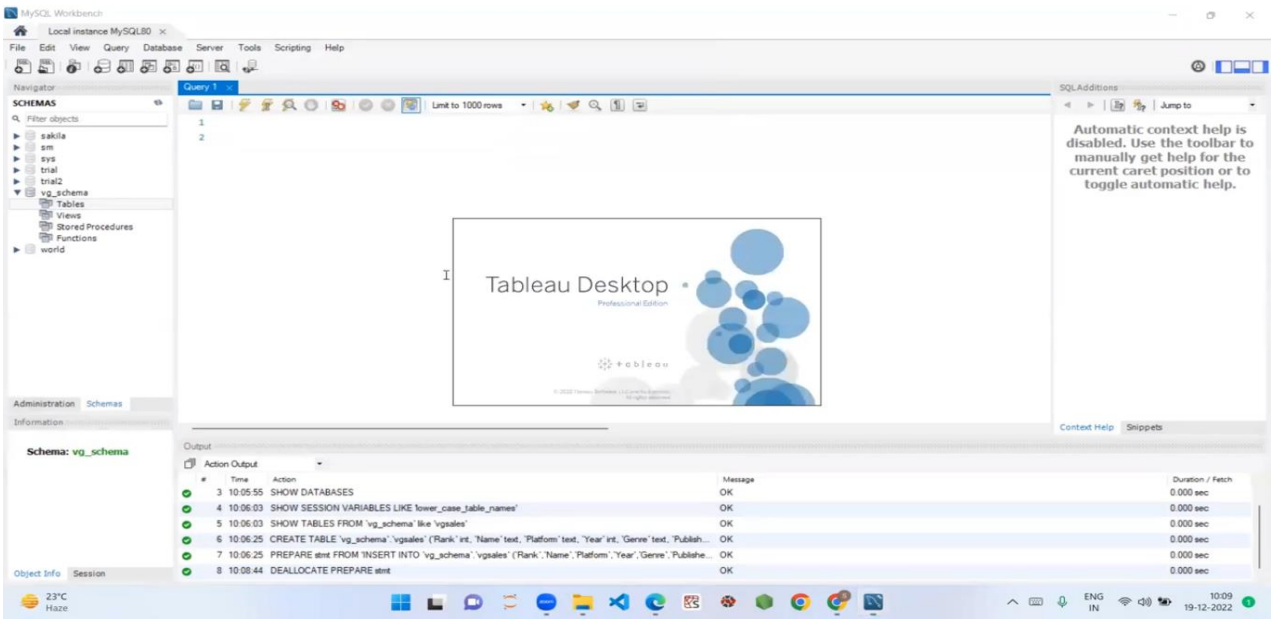
Understand the data:

The data source of this project contains a list of video games with sales greater than
100,000 copies. It was generated by a scrape of vgchartz.com.
Fields include

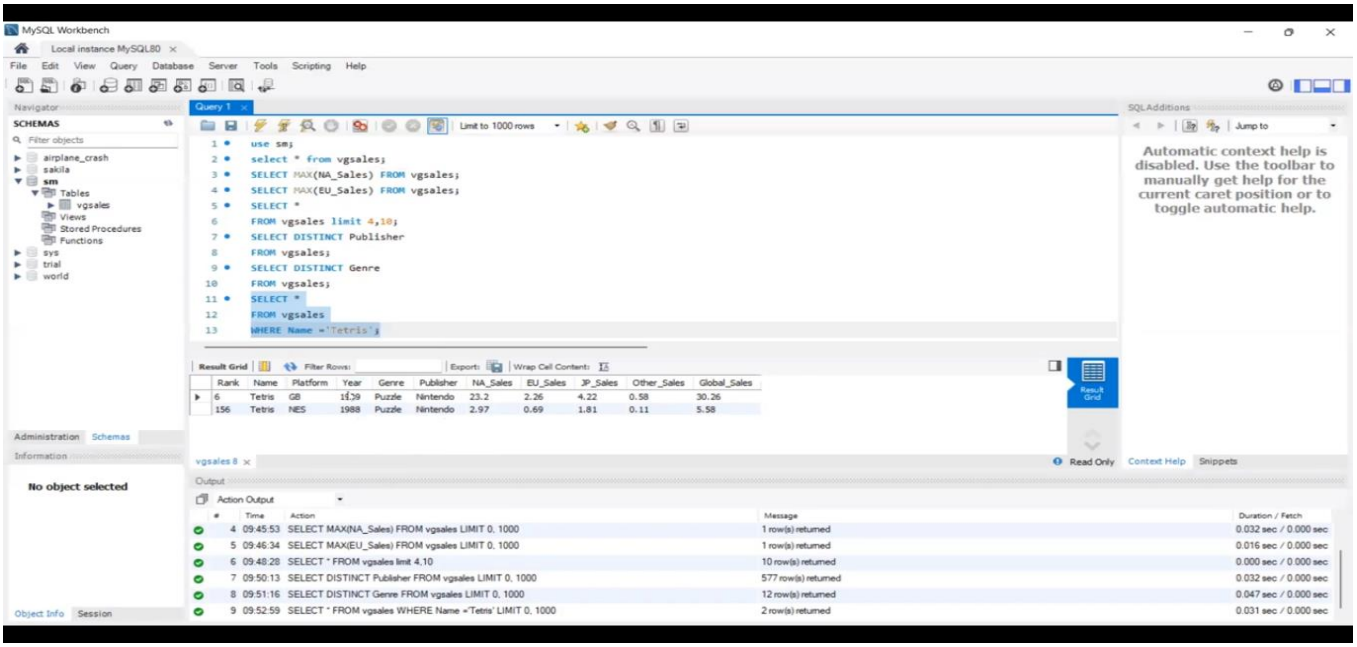
1. Rank - Ranking of overall sales
2. Name - The games name
3. Platform - Platform of the games release (i.e. PC, PS4, etc.)
4. Year - Year of the game's release
5. Genre - Genre of the game
6. Publisher - Publisher of the game
7. NA_Sales - Sales in North America (in millions)
8. EU_Sales - Sales in Europe (in millions)
9. JP_Sales - Sales in Japan (in millions)
10. Other_Sales - Sales in the rest of the world (in millions)
11. Global_Sales - Total worldwide sales.

Storing Data in DB & Perform SQL Operations:

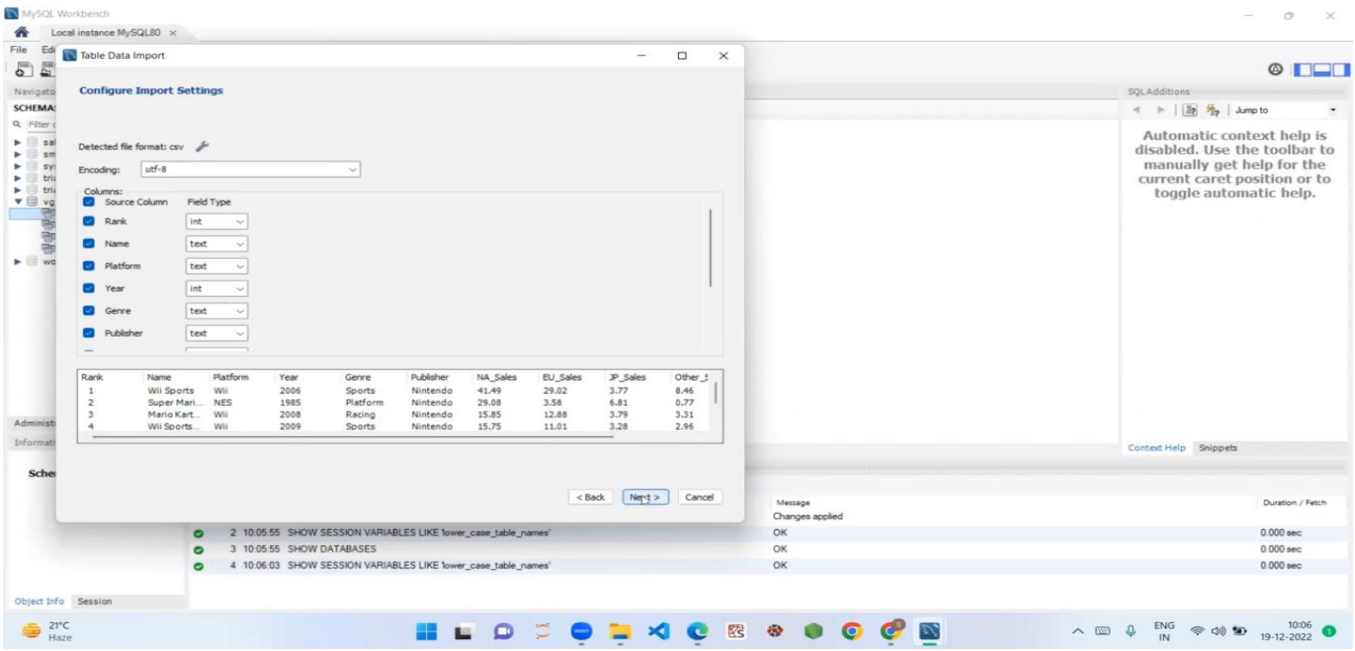


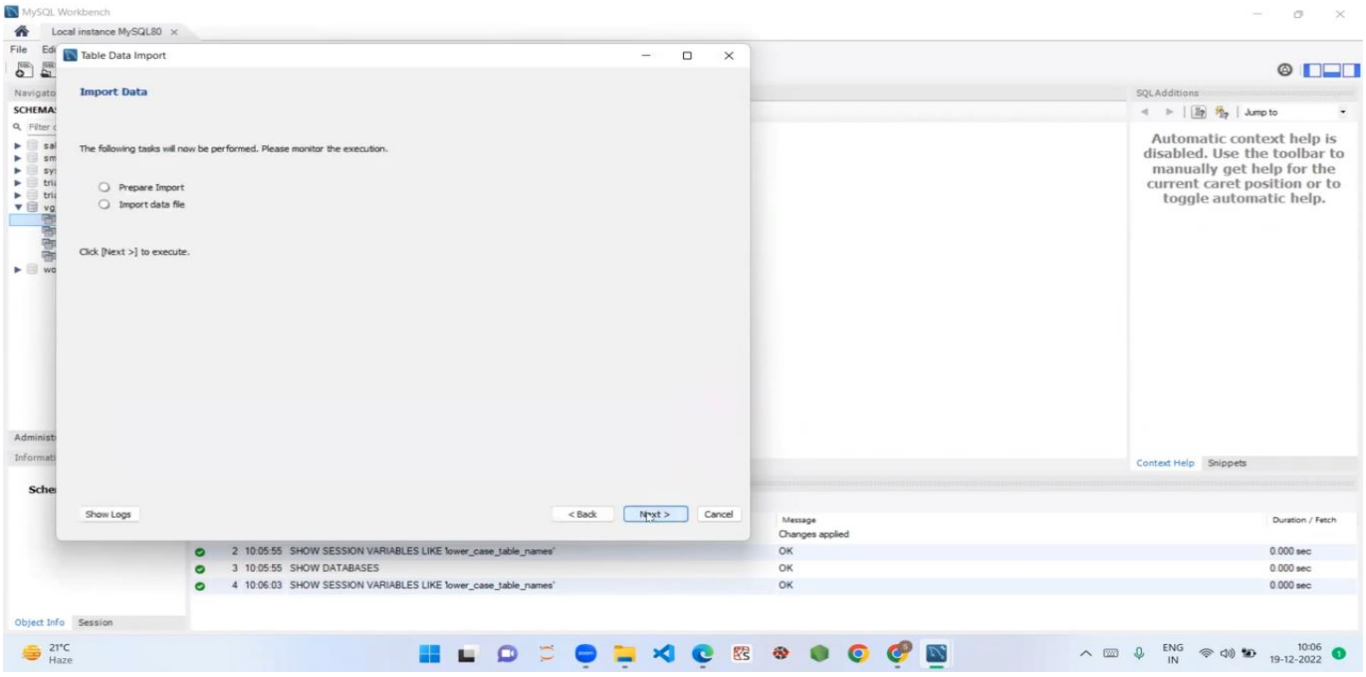


Basic SQL Operations :



Connect DB with Tableau :





Milestone 3: Data Preparation:

Prepare the Data for Visualization

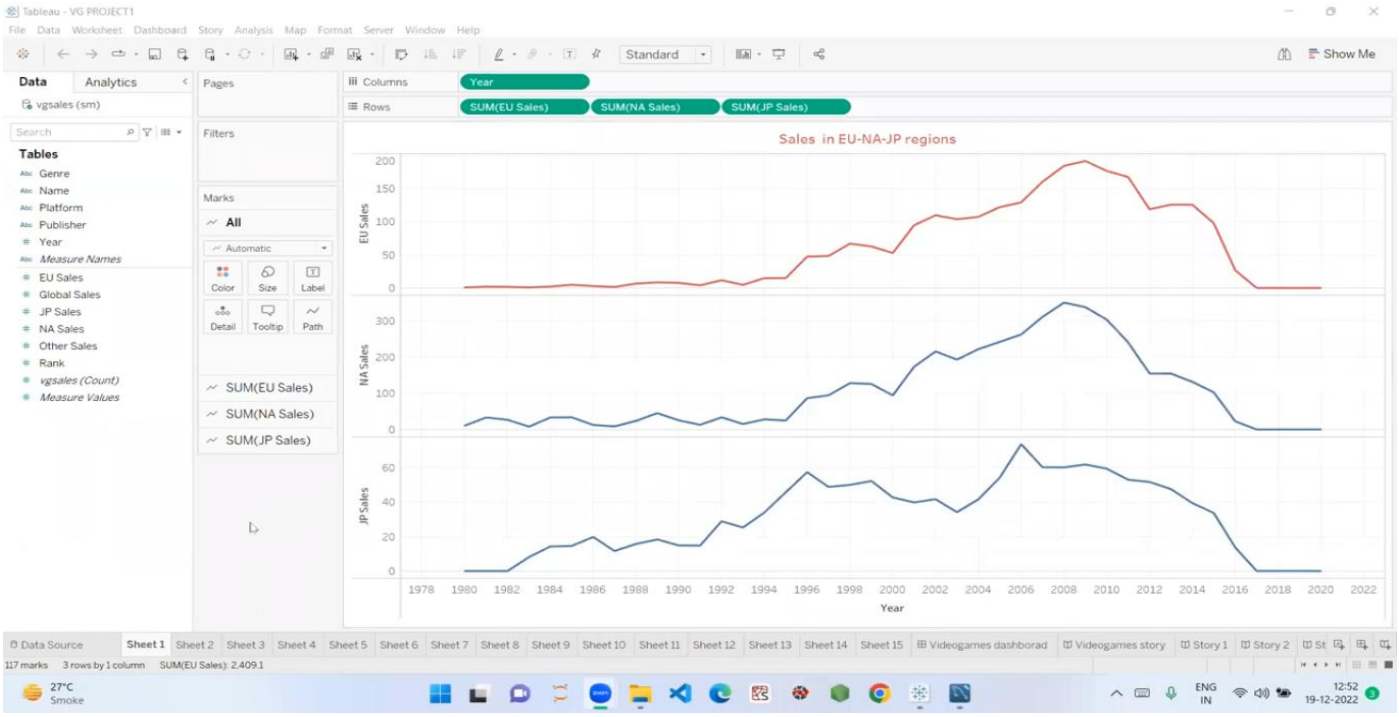
Preparing the data for visualization involves cleaning the data to remove

irrelevant or missing
data, transforming the data into a format that can be easily visualized, exploring the data to
identify patterns and trends, filtering the data to focus on specific subsets of data, preparing
the data for visualization software, and ensuring the data is accurate and complete. This
process helps to make the data easily understandable and ready for creating visualizations to
gain insights into the performance and efficiency.

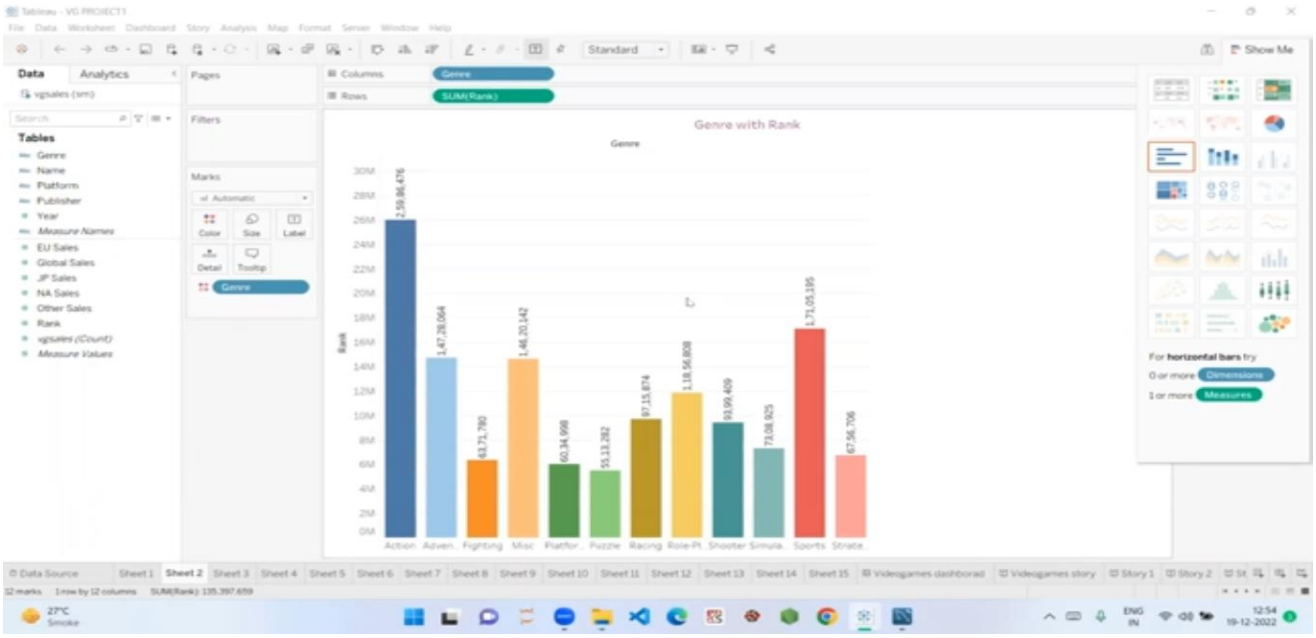
Milestone 4: Data Visualization
Data visualization is the process of creating graphical representations of data in order to help people
understand and explore the information. The goal of data visualization is to make complex data sets
more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs,
and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the
data.

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 analyze the performance and efficiency of
Radisson Hotels include bar charts, line charts, heat maps, scatter plots, pie charts,Maps etc.
These visualizations can be used to compare performance, track changes over time, show
distribution, and relationships between variables, breakdown of revenue and customer
demographics, workload, resource allocation and location of sales of Games.

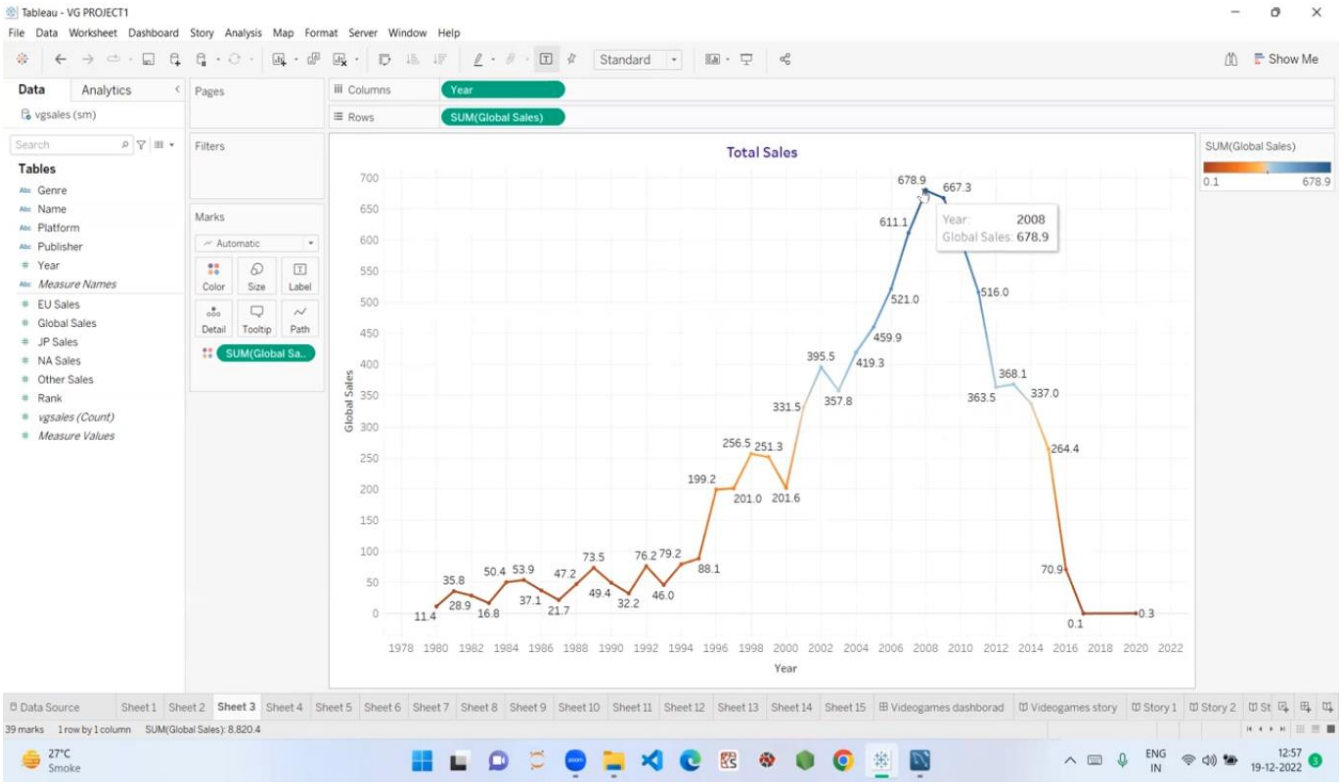
Sales in different region Analysis:



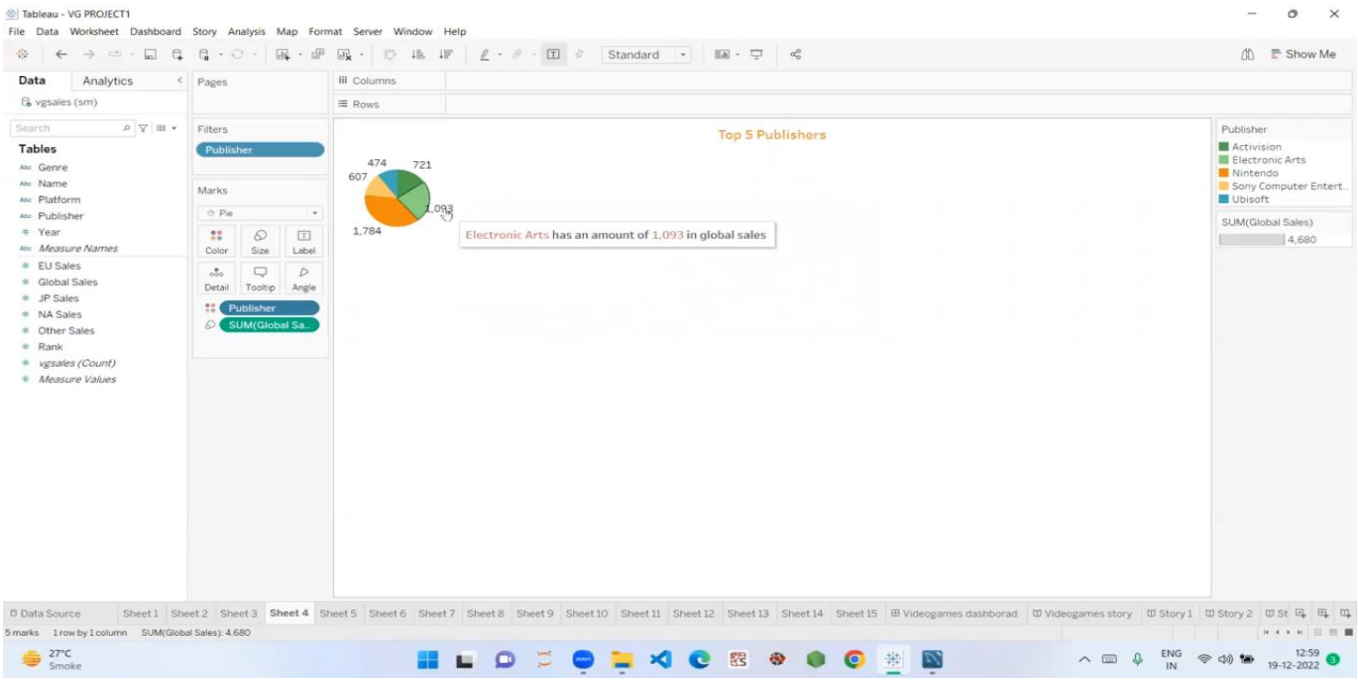
Genre with rank Analysis:



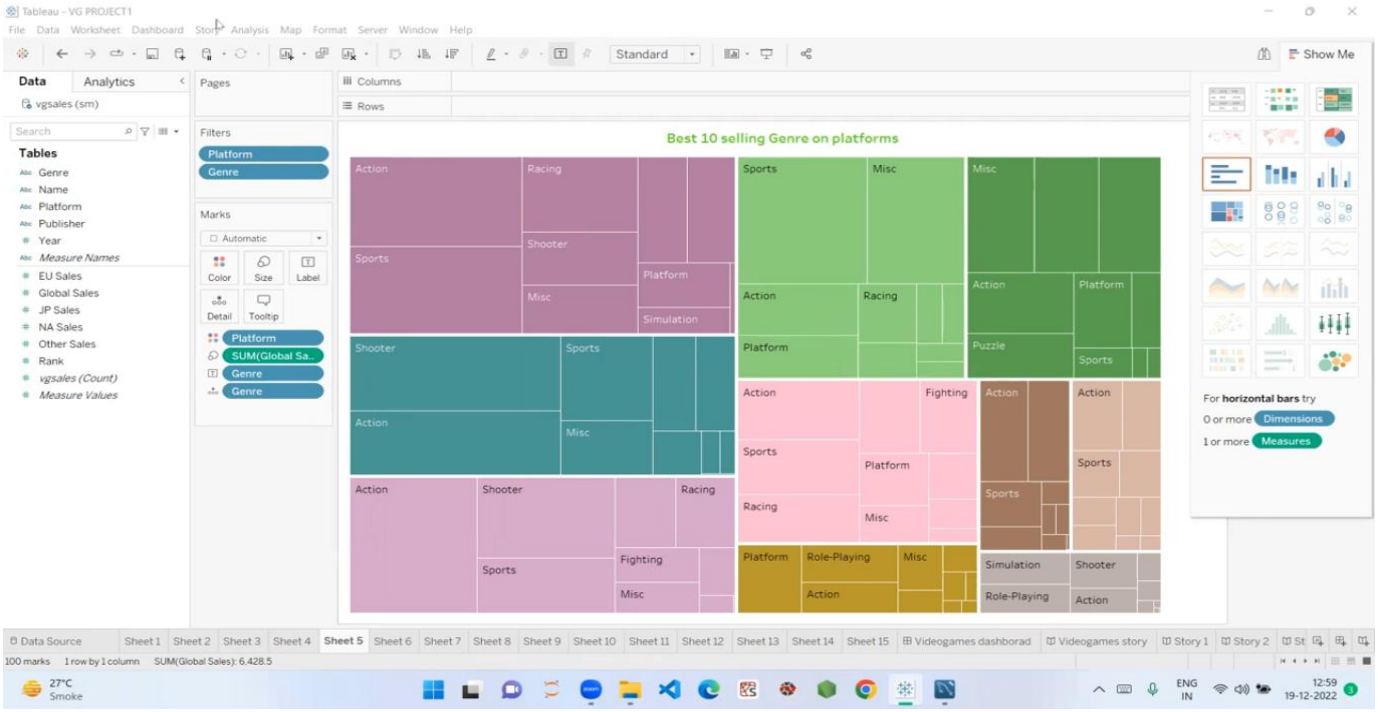
Total Sales Analysis:



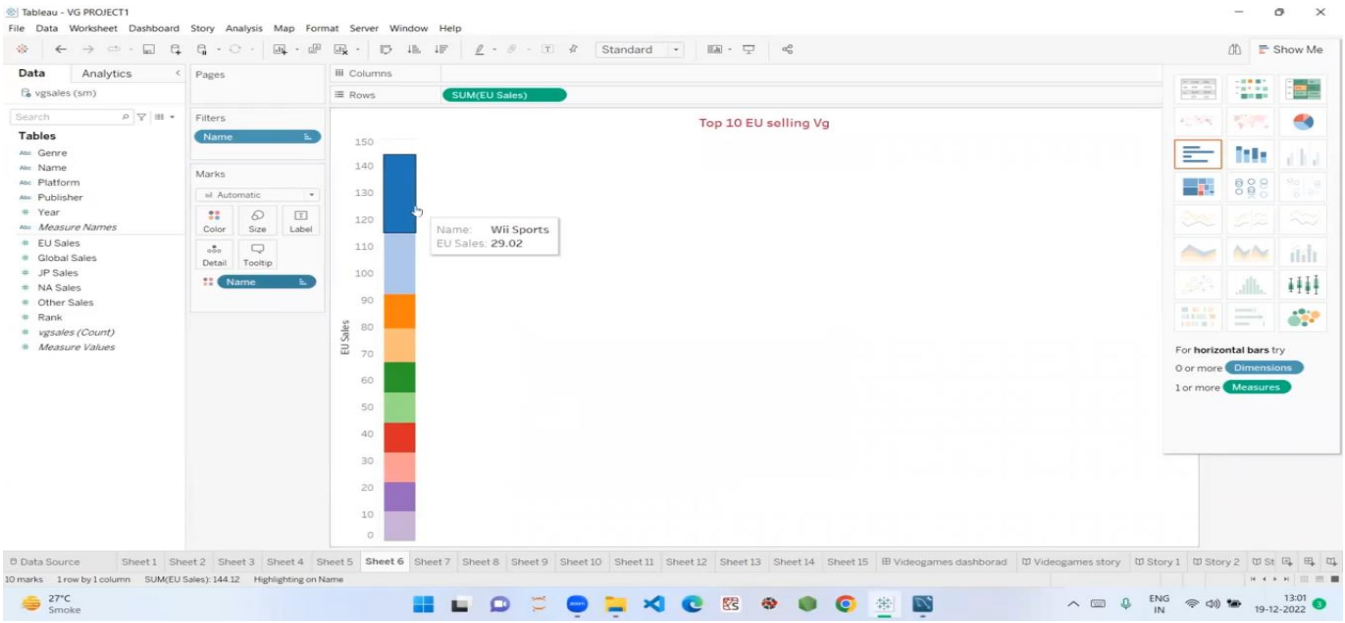
Top 5 publishers Analysis:



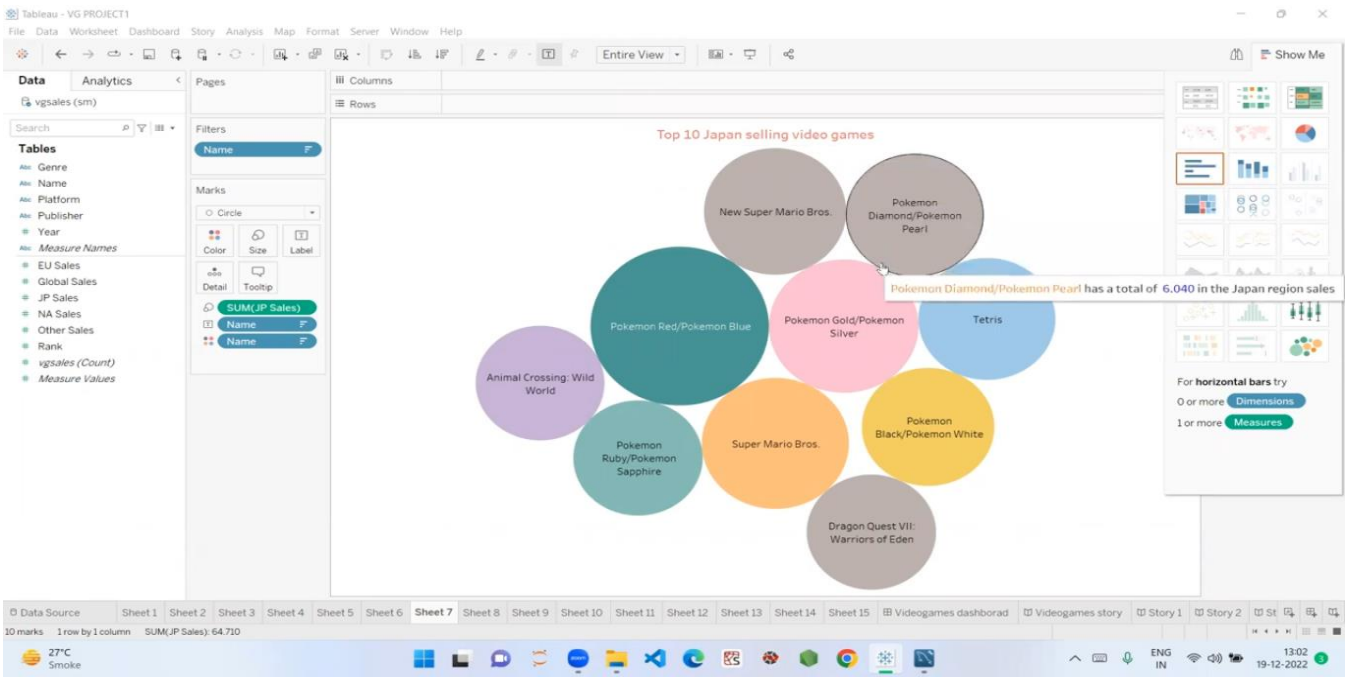
Best 10 selling genres on platform Analysis:



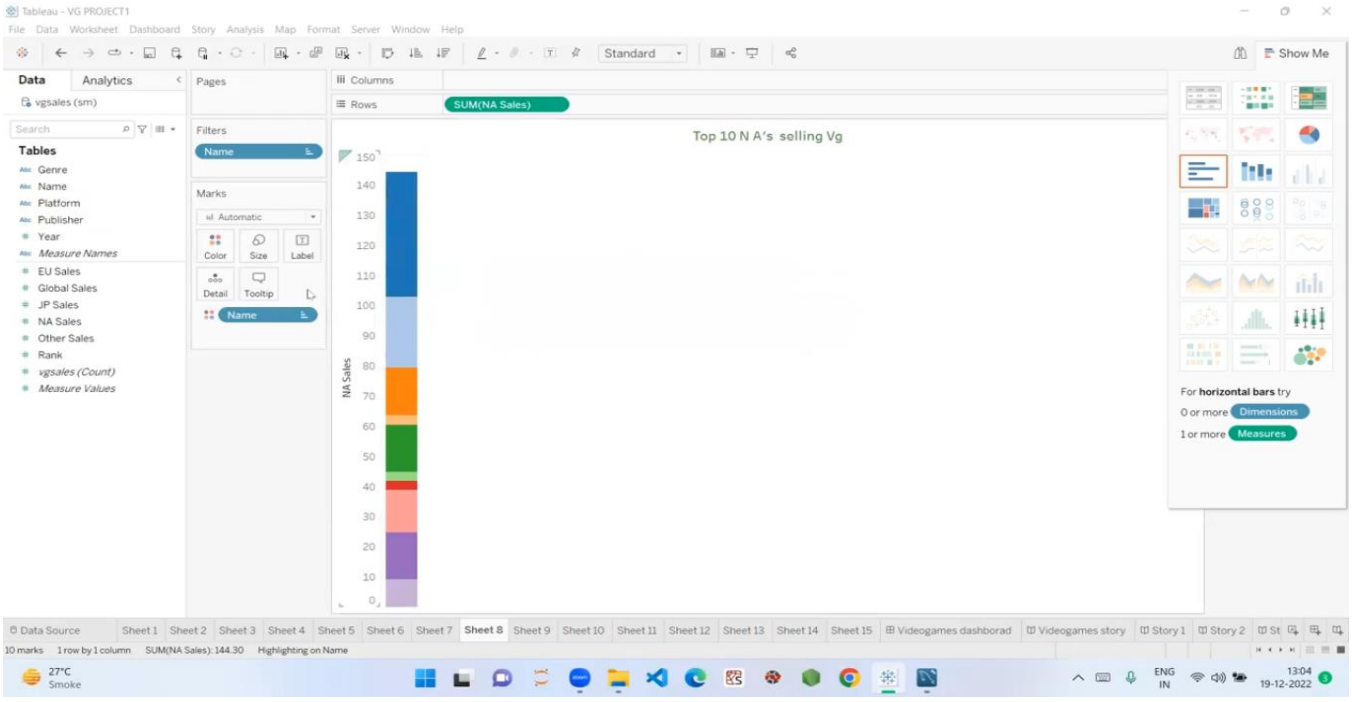
Top 10 EU selling video games Analysis:



Top 10 Japan selling video games Analysis:



Top 10 NA selling video games:



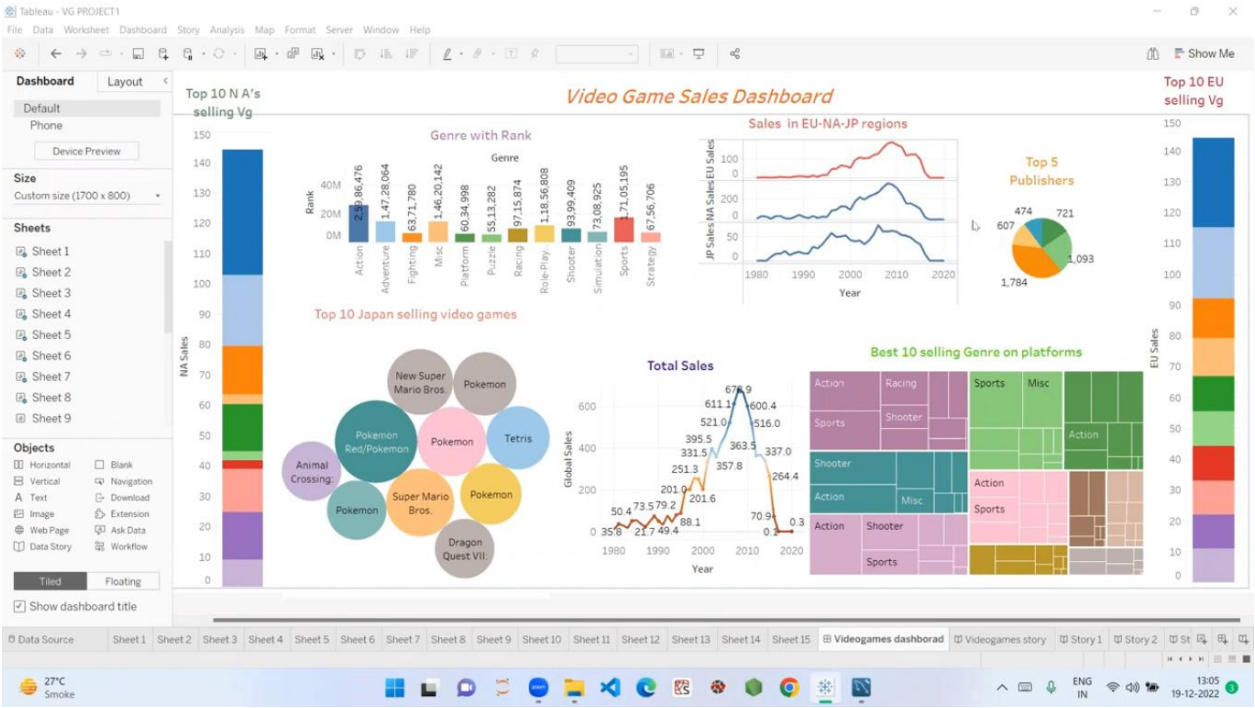
Milestone 5: Dashboard

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.

Acitivity: 1- Responsive and Design Dashboard

The responsiveness and design of a dashboard for analyzing the performance and efficiency of Radisson Hotels is crucial to ensure that the information is easily understandable and actionable. Key considerations for designing a responsive and effective dashboard include user-centered design, clear and concise information, interactvity, data-driven approach, accessibility, customization, and security. The goal is to create a dashboard that is user-friendly, interactive, and data-driven, providing actionable insights to improve the performance and efficiency of Radisson Hotels.

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

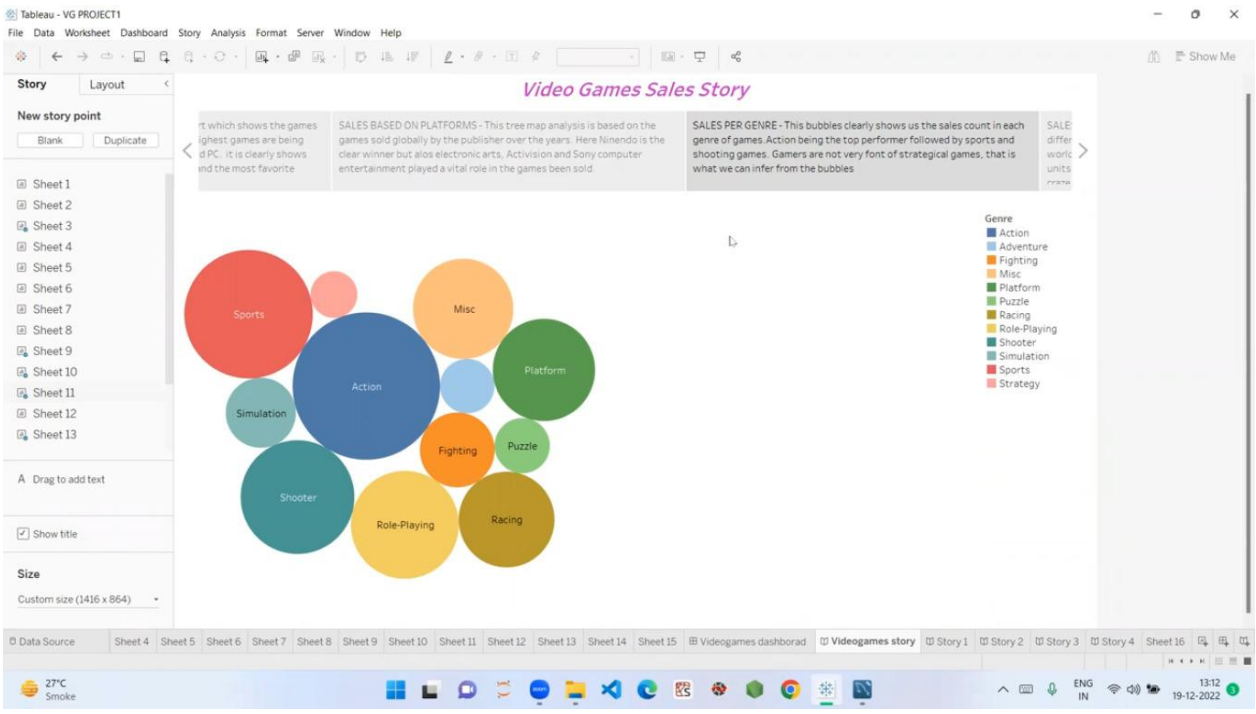


Milestone 6: Story

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.

Acitivity:1- No Of Scences Of Story

The number of scenes in a storyboard for a data visualization analysis of the performance and efficiency of video games analysis will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.



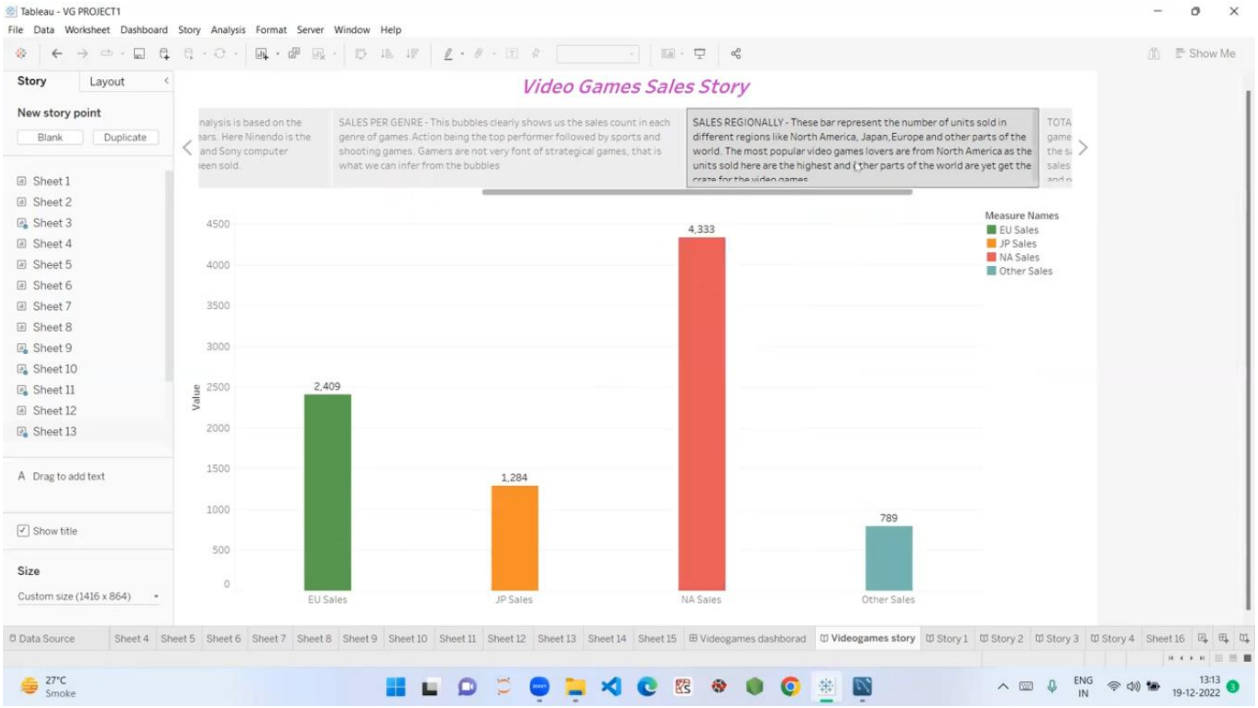


Tableau - VG PROJECT1
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Story
Layout
New story point
Blank
Duplicate
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sheet 5
Sheet 6
Sheet 7
Sheet 8
Sheet 9
Sheet 10
Sheet 11
Sheet 12
Sheet 13
Drag to add text
Show title
Size
Custom size (1416 x 864)
Video Games Sales Story
SALES REGIONALLY - These bar represent the number of units sold in different regions like North America, Japan, Europe and other parts of the world. The most popular video games lovers are from North America as the units sold here are the highest and other parts of the world are yet get the
Measure Names
EU Sales
JP Sales
NA Sales
Other Sales
Value
2,409
1,284
4,333
789
EU Sales
JP Sales
NA Sales
Other Sales
Data Source
Videogames dashborad
Videogames story
Story 1
Story 2
Story 3
Story 4
27°C
Smoke
ENG
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19-12-2022

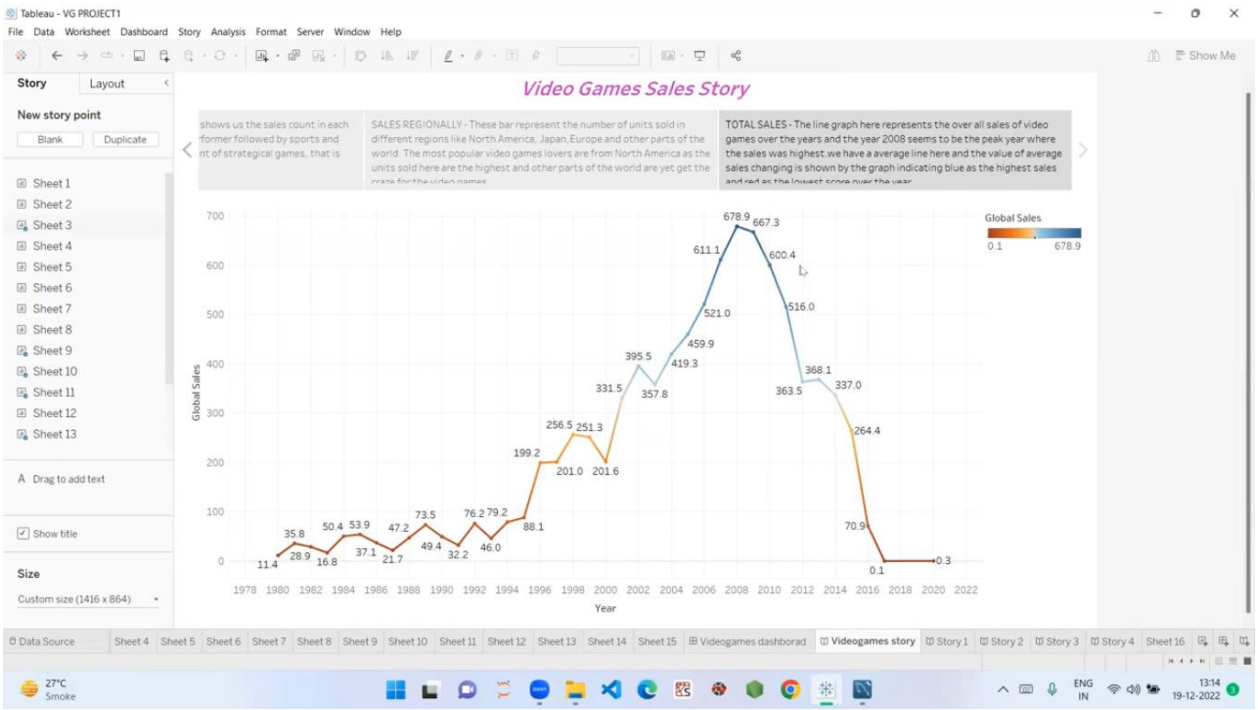


Tableau - VG PROJECT1
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Story
Layout
New story point
Blank
Duplicate
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sheet 5
Sheet 6
Sheet 7
Sheet 8
Sheet 9
Sheet 10
Sheet 11
Sheet 12
Sheet 13
Drag to add text
Show title
Size
Custom size (1416 x 864)
Video Games Sales Story
TOTAL SALES - The line graph here represents the over all sales of video games over the years and the year 2008 seems to be the peak year where the sales was highest. we have a average line here and the value of average sales changing is shown by the graph indicating blue as the highest sales
Global Sales
0.1
678.9
Global Sales
Year
Data Source
Videogames dashborad
Videogames story
Story 1
Story 2
Story 3
Story 4
27°C
Smoke
ENG
IN
13:14
19-12-2022

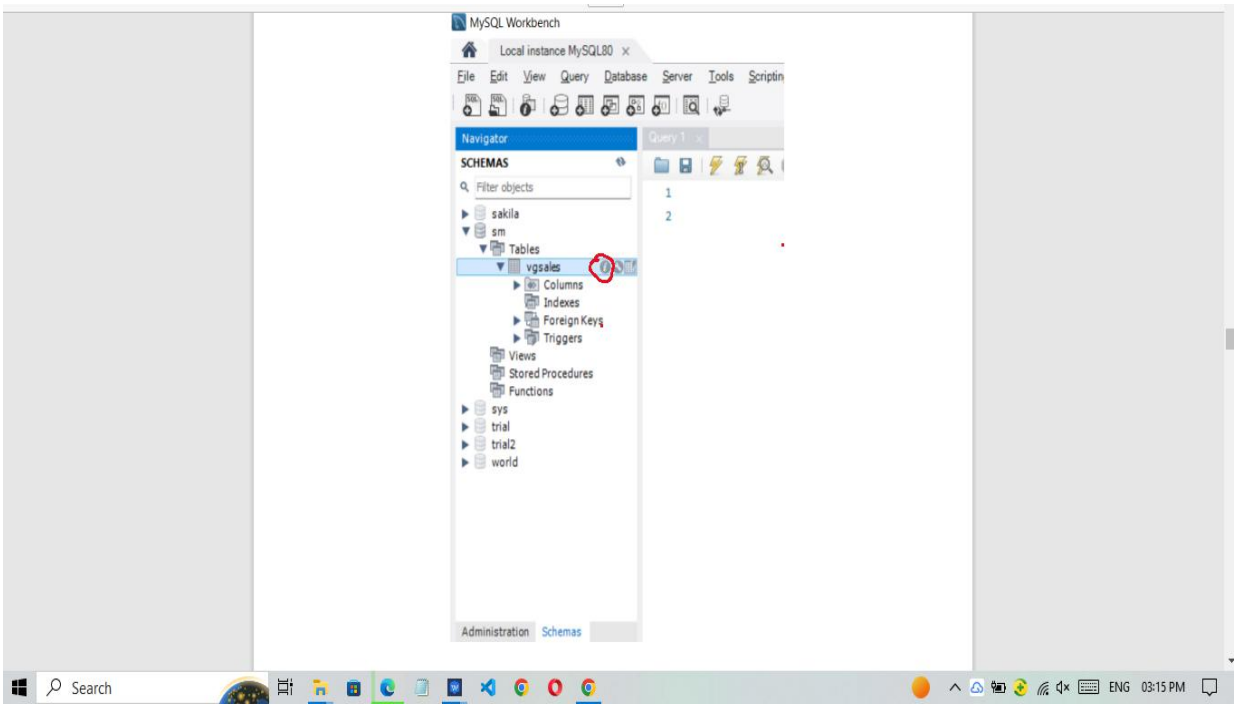
Milestone 7: Perfromance Testing

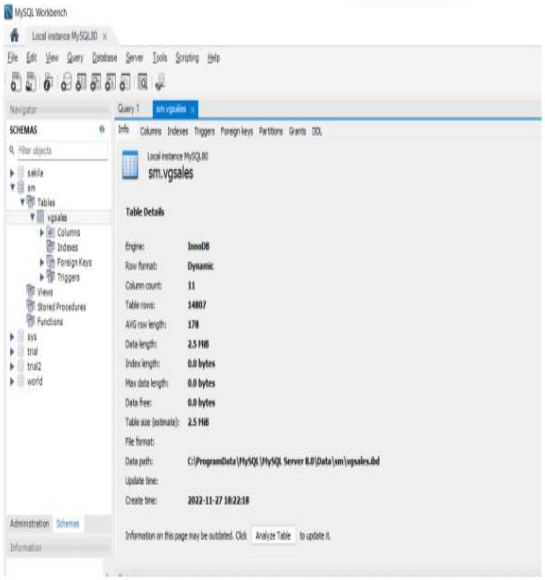
Activity 1: Amount of Data Rendered to DB

- 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

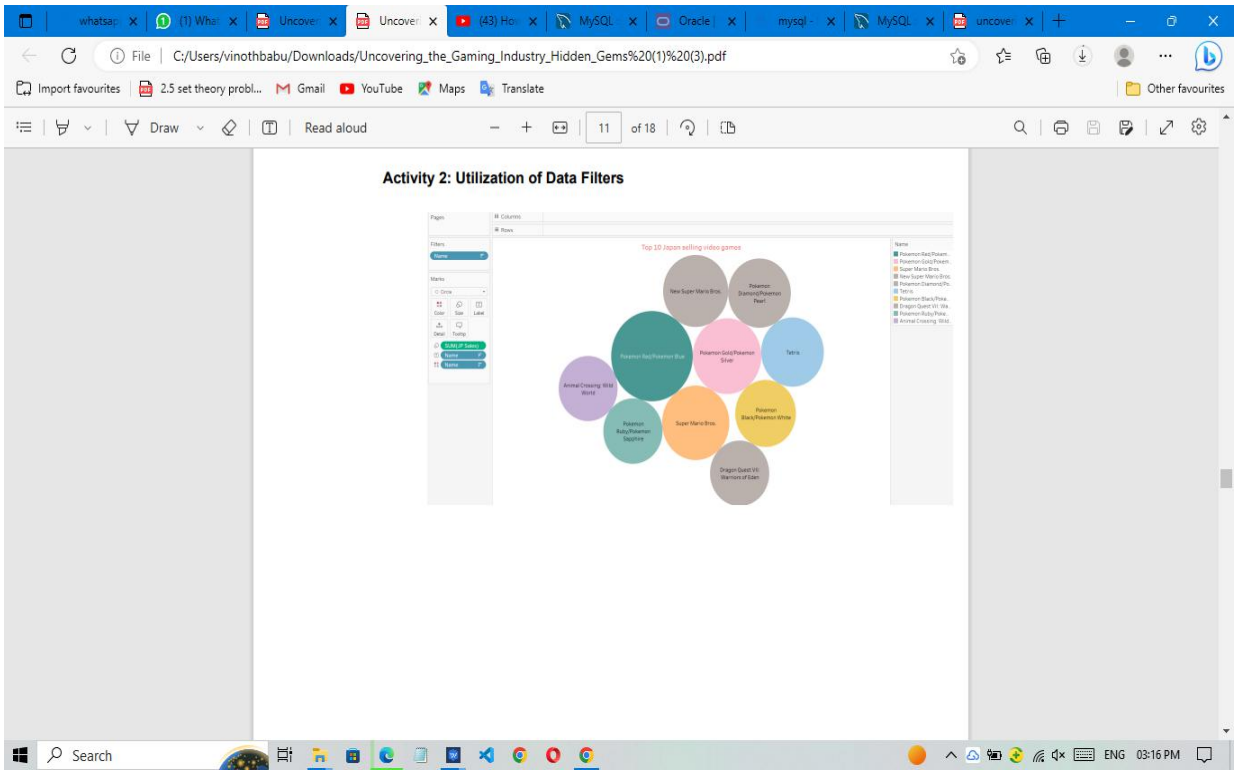
.

- 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.




MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
sakila
sm
Tables
vgsales
Columns
Indexes
Foreign Keys
Triggers
Views
Stored Procedures
Functions
sys
trial
trial2
world
Administration Schemas
Information
Query 1
sm.vgsales
Info Columns Indexes Triggers Foreign keys Partitions Grants DDL
Local instance MySQL80
sm.vgsales
Table Details
Engine: InnoDB
Row format: Dynamic
Column count: 11
Table rows: 14807
AVG row length: 178
Data length: 2.5 MiB
Index length: 0.0 bytes
Max data length: 0.0 bytes
Data free: 0.0 bytes
Table size (estimate): 2.5 MiB
File format:
Data path: C:\ProgramData\MySQL\MySQL Server 8.0\Data\sm\vgsales.ibd
Update time:
Create time: 2022-11-27 18:22:18
Information on this page may be outdated. Click Analyze Table to update it.

Activity 2: Utilization Of Data Filters



Milestone 8: Web integration

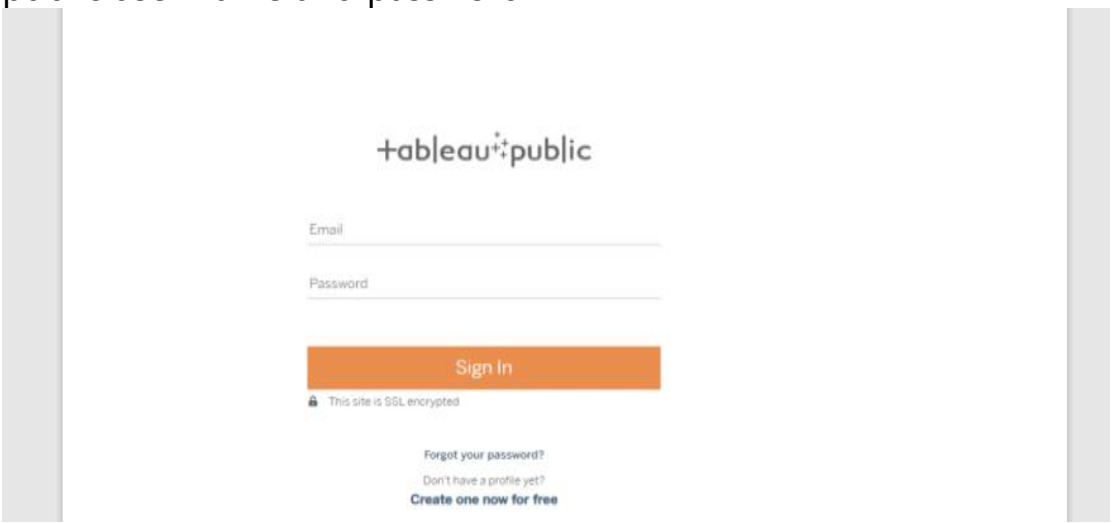
Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

Publishing dashboard and reports to tableau public

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

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

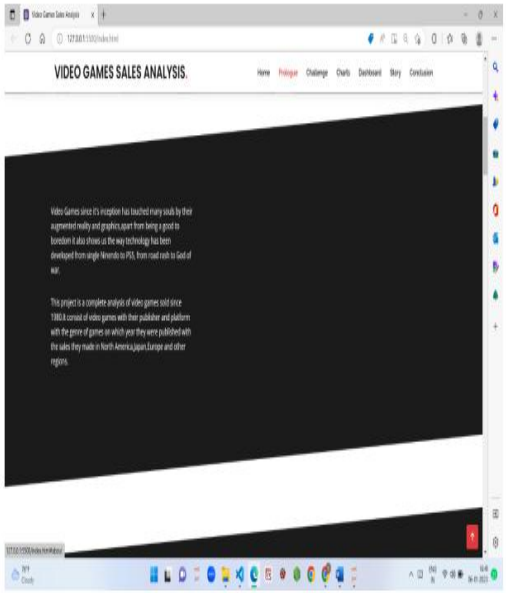
Step 2: Once you click on connect it will ask you for tableau public user name and password

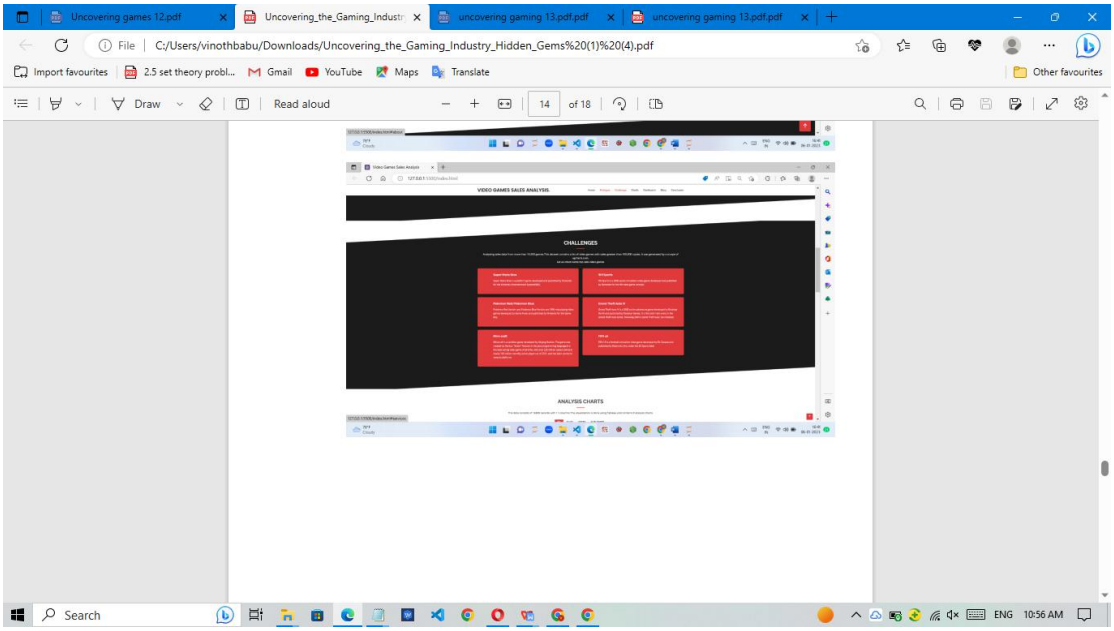


Once you login into your tableau public using the credentials, the particular visualization will be published into tableau public

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

Activity 1: Dashboard and Story embed with UI With Flask


VIDEO GAMES SALES ANALYSIS.
Home
Prologue
Challenge
Charts
Dashboard
Story
Conclusion


Uncovering games 12.pdf
Uncovering_the_Gaming_Industr
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File | C:/Users/vinothbabu/Downloads/Uncovering_the_Gaming_Industry_Hidden_Gems%20(1)%20(4).pdf
Import favourites
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Gmail
YouTube
Maps
Translate
Other favourites
Draw
Read aloud
14
of 18
VIDEO GAMES SALES ANALYSIS.
CHALLENGES
ANALYSIS CHARTS
Search
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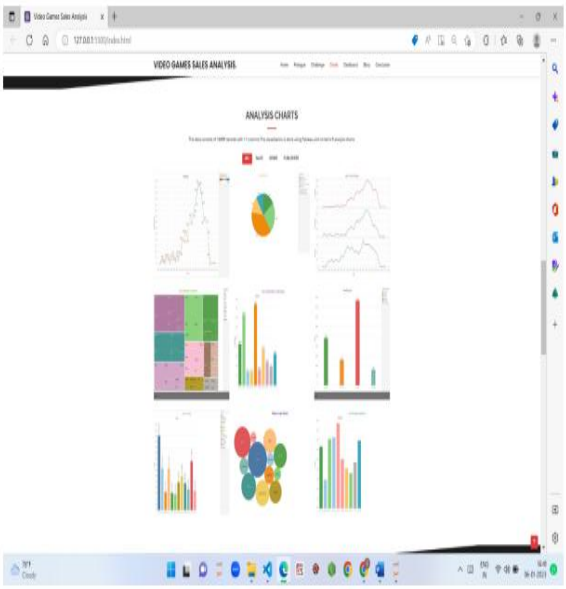
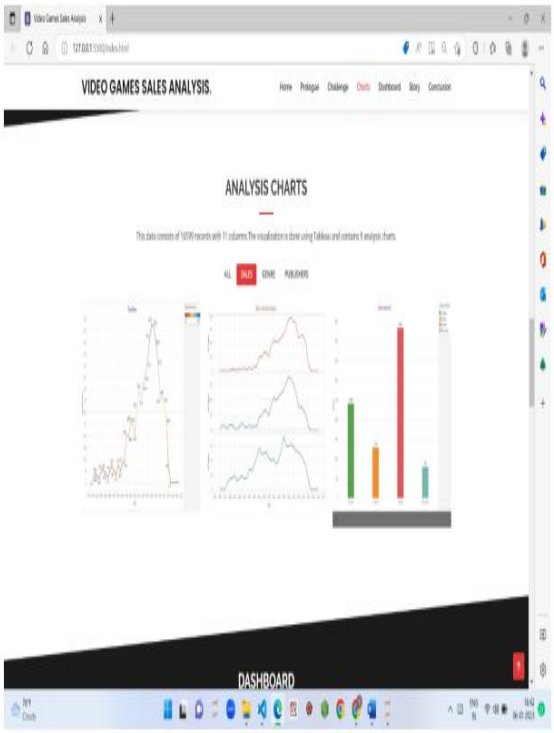
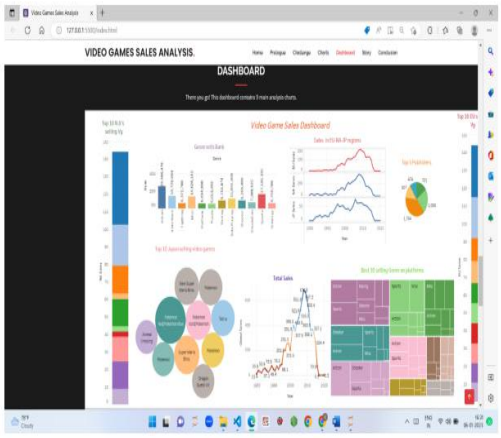
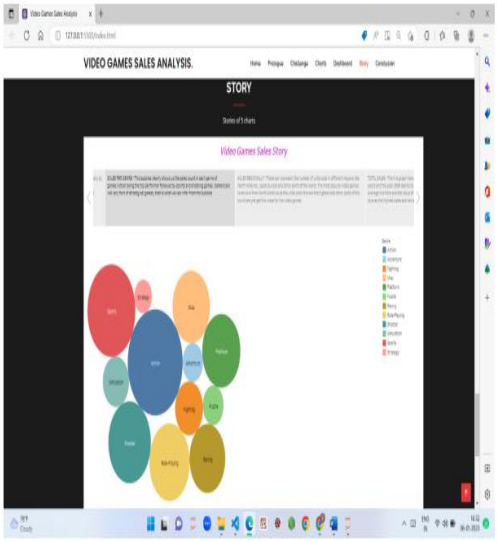

VIDEO GAMES SALES ANALYSIS.
ANALYSIS CHARTS


VIDEO GAMES SALES ANALYSIS.
Home Prologue Challenge Charts Dashboard Story Conclusion
ANALYSIS CHARTS
This data consists of 16598 records with 11 columns.The visualization is done using Tableau and contains 4 analysis charts.
ALL SALES GENRE PUBLISHERS
DASHBOARD


VIDEO GAMES SALES ANALYSIS.
Home
Prologue
Challenge
Charts
Dashboard
Story
Conclusion
ANALYSIS CHARTS
DASHBOARD


VIDEO GAMES SALES ANALYSIS.
Home
Prologue
Challenge
Charts
Dashboard
Story
Conclusion
ANALYSIS CHARTS
DASHBOARD


VIDEO GAMES SALES ANALYSIS.
DASHBOARD
Video Game Sales Dashboard


VIDEO GAMES SALES ANALYSIS.
STORY
Video Games Sales Story


CONCLUSION