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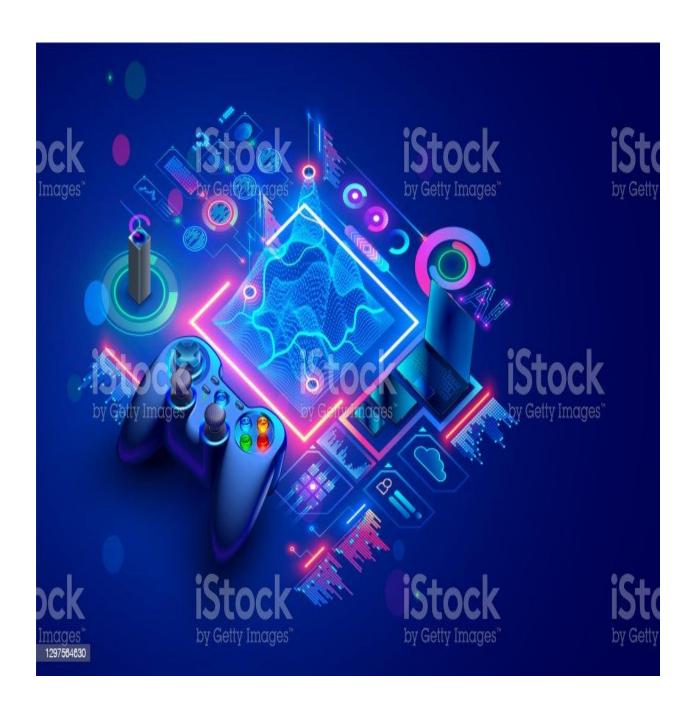
TEAM SIZE: 04

TEAM LEADER:

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TEAM MEMBERS

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UNCOVERING THE GAMING INDUSTRY'S HIDDEN GEMS: A COMPREHENSIVE ANALYSIS OF VIDEO GAME SALES

1.Introdution:

1.1 Overview

Video games are popular all over the world. They are enjoyed by all ages. Video game industry is huge and the spending on video games per year is huge too. Sales of different types of games vary widely between countries due to local preferences. According to the market research firm Super Data, as of May 2015, the global games market was worth USD 74.2 billion. By region, North America accounted for 23.6 billion dollars, Asia for 23.1 billion dollars, Europe for 22.1 billion dollars and South America for 4.5 billion dollars. There are different genres, publisher and platforms for video games. This project relates to the sales of these video games based on different regions and analyzes the sales. Also I have analyzed which genre, platform or publisher is the most popular and has maximum number of sales.



The **history of video games** began in the 1950s and 1960s as <u>computer scientists</u> began designing simple games and <u>simulations</u> on <u>minicomputers</u> and <u>mainframes</u>. <u>Spacewar!</u> was developed by <u>Massachusetts Institute of Technology</u> (MIT) student hobbyists in 1962 as one of the first such <u>games on a video display</u>. The first consumer video game hardware was released in the early 1970s. The first <u>home video game console</u> is the <u>Magnavox Odyssey</u>, and the first <u>arcade video games</u> are <u>Computer</u> <u>Space</u> and <u>Pong</u>. After its home console conversions, numerous companies sprang up to capture <u>Pong</u>'s success in both the arcade and the home by <u>cloning</u> the game, causing a series of boom and bust cycles due to oversaturation and lack of innovation.

In this the main goal was to analyze the sales of video games in different regions. The regions are North America, Europe, Japan, other countries(comined) and then the global sales(total of all the regions). The main idea was to visualize the sales for different genres, publishers and platforms. This would give the basic idea about the most popular genres, publishers and platforms amongst all. Also analyzing the effect of genres on sales in different regions.

1.2 Purpose:

The video game industry encompasses the development, marketing, and monetization of video games. The industry encompasses dozens of job disciplines and thousands of jobs worldwide.

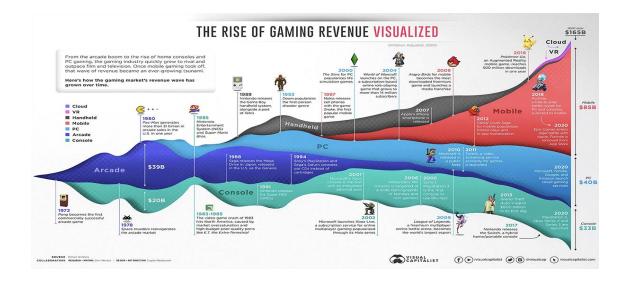
The future of video games is bright, with billions of gamers worldwide and revenues in the hundreds of billions of dollars. Some key statistics:

The games and interactive media market earned more than \$120 billion in 2019, according to Super Data; mobile games generated more than half that PC and gaming consoles generated \$29.6 billion and \$15.4 billion, respectively.

There were <u>7 billion gamers worldwide in 2020</u> — about 35% of the world's population — according to Statista.

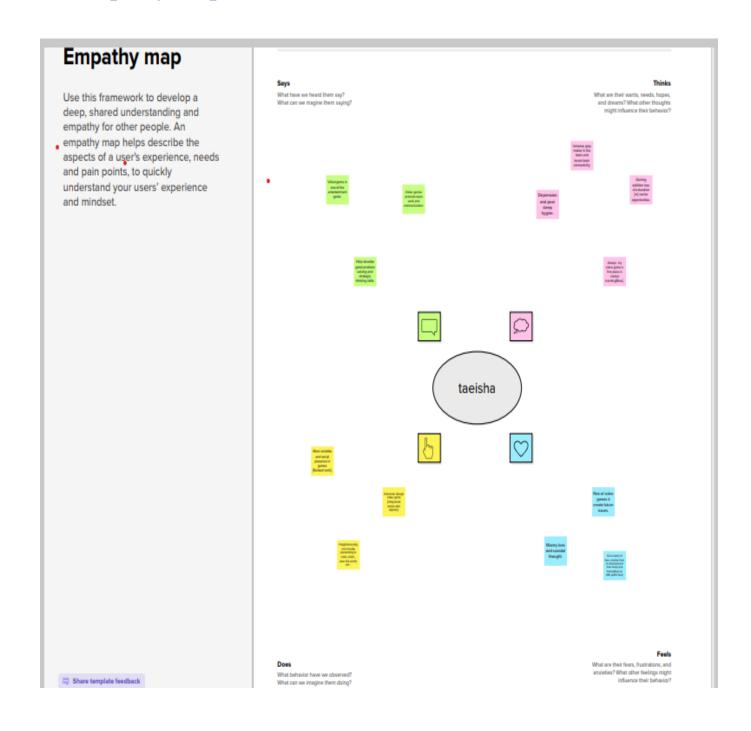
As the <u>gaming industry evolves</u>, companies such as Nintendo, Sony, and Microsoft continue to advance innovation in the game console space. The market has attracted <u>tech giants</u> such as Amazon, Apple, Facebook, and Google, all with gaming products of their own and offerings that extend gaming to the cloud.

This project is mainly to use analysis video game sales data collection to make an some type of visualization[graph] is easy to understood in a people.

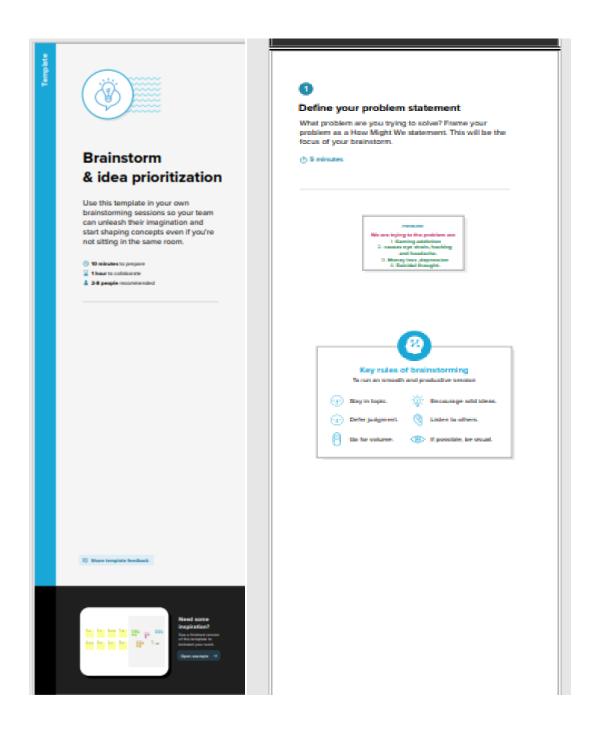


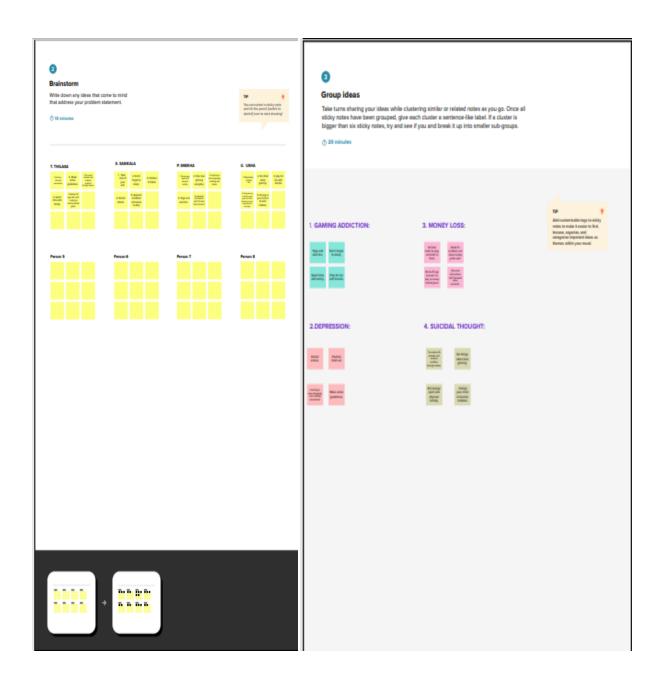
2. Problem Definition and Design Thinking:

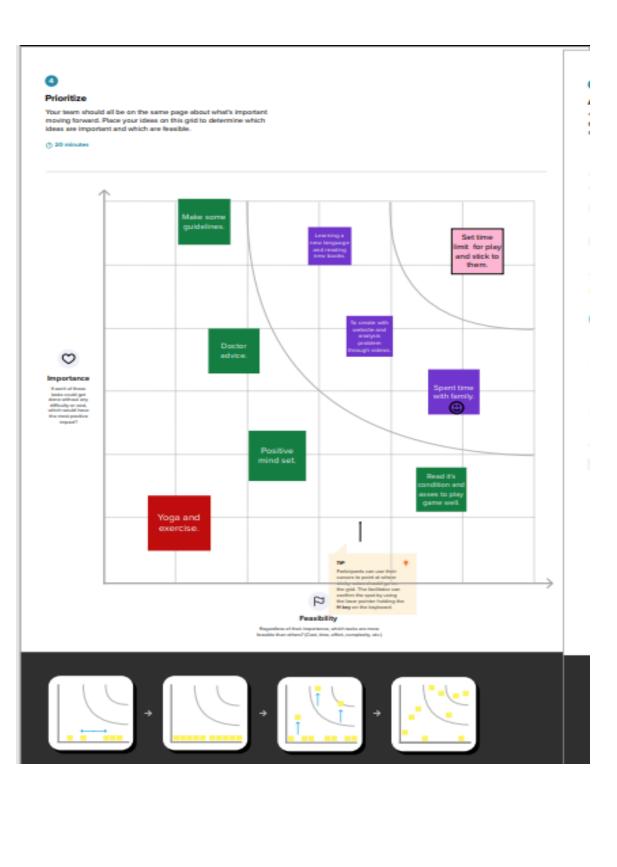
2.1 Empathy Map



2.2 Ideation and Brainstorming Map

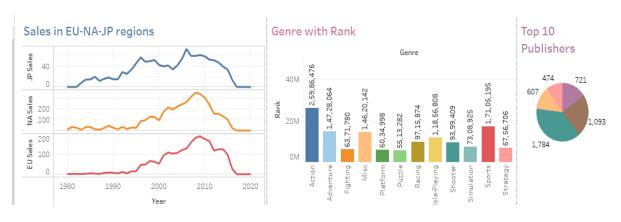


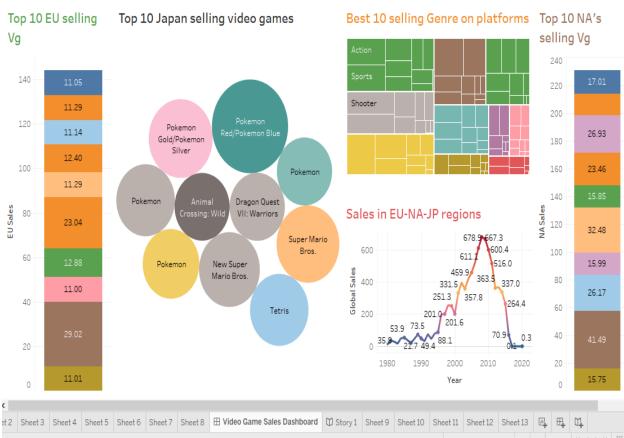




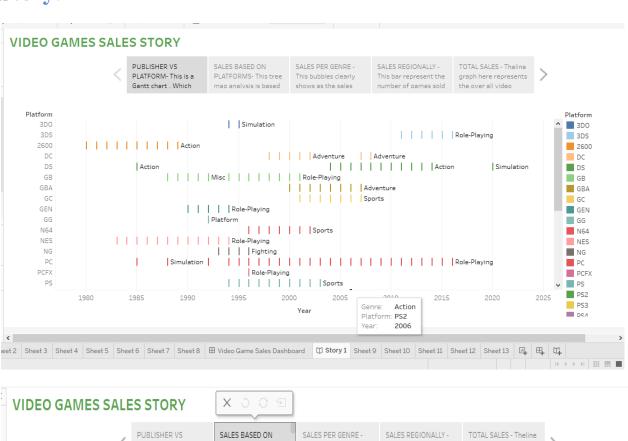
3. Result:

Dashboard:

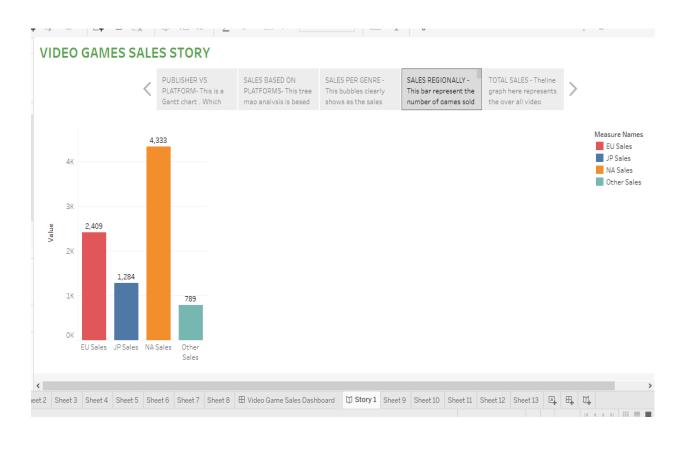


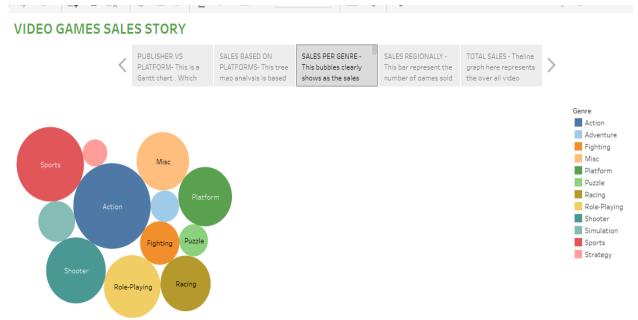


Story:

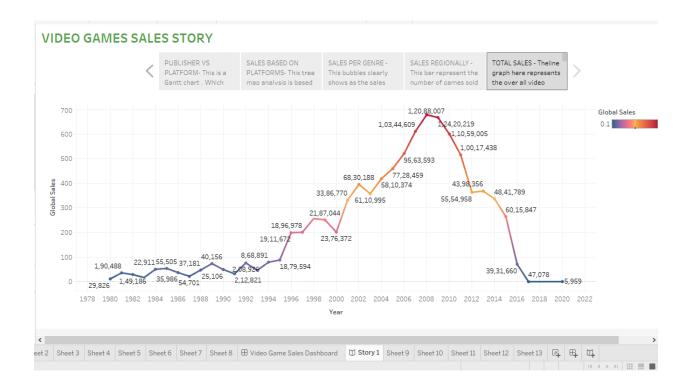




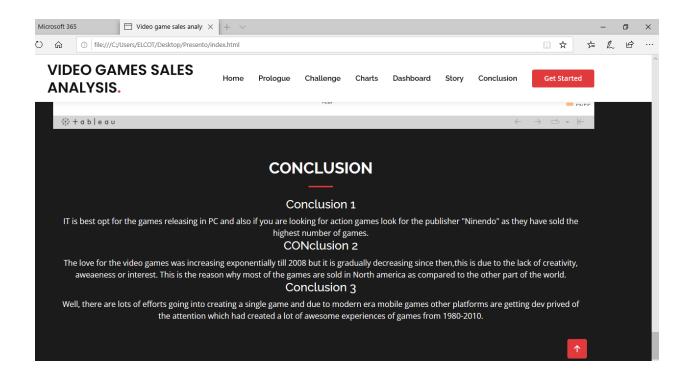




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Web Integration:



Advantages and Disadvantages:



Advantages:

- ➤ Video games provide a lot of benefits for people of all ages. They can help people improve their hand-eye coordination, problem-solve, and learn new strategies. They can also provide hours of fun and entertainment. Some people even use video games to relieve stress and anxiety. In other words, video games have many pros such as:
- > Improves dexterity
- ➤ Game can increase your brain's gray matter.
- > Improves social skills

- Makes you a better problem solver.
- > Promotes mental health.

Disadvantages:

- There are many disadvantages to playing video games. Some of the most common are that they can be addictive, lead to poor physical and mental health, and can take up a lot of time. They also can be expensive, which can limit people's ability to play them. Other cons of video games are as follows
- > Extremely addictive
- > Affects motivations
- > Affects Emotion
- ➤ Can cause Repetitive Stress Injuries
- ➤ Limits social interaction
- > Can negatively affect emotions.

5. Applications:

Video gaming, once seen as an addictive hobby, can actually make the world a better place through science and technology. By inspiring students to pursue careers in STEM fields and helping solve real-world problems, video games have taken on an entirely new light in recent years. Let's explore how video gaming can help solve world problems and create innovation in the future.

A gaming application is a web, mobile, or desktop application that enables users to play games against each other. Gaming apps may also include

features for managing the game and interacting with friends. Games are often

categorized as either casual games or immersive, engaging games.

Data Analytics:

For this project the data was collected from Kaggle(www.kaggle.com). This

data gives us the idea about the sales of video games in different regions of

the world. The distribution is with respect to genres, publishers and

platforms.

➤ Name: Name of the video game

➤ Platform: Platform on which the game was released or is playable

> Year: Year in which the game was released

> Genre: Genre the game belongs to

➤ Publisher: Name of the publisher who created the game

> NA Sales: Sales in North America

> EU Sales: Sales in Europe

> JP Sales: Sales in Japan

> Other Sales: Sales in other countries

➤ Global Sales: Global Sales

6. Conclusion:

The first step of my project process is define problem statement and making solution for our problems. Using these solution we made a ideation template. With these ideas we made a Empathy map and Brainstorming template, which is our first milestone Define problem or problem understanding. Secondly, according to our project we collect data sets from sources, and we made that data in SQL to make use of it. After that Tableau software is installed and we connected Tableau desktop to SQL Workbench successfully. Which is our second milestone Data collection and extraction from database.

Thirdly, we prepare the data for visualization. Which is our third milestone data preparation. The next step is number of unique visualization, we made a bar charts, line chart, bobble chart etc. We made visualization for our topic is Sales in different region Analysis, Genre with rank Analysis, Total sales Analysis, Top 5 publishers Analysis, Best 10 selling genre of platform Analysis, Top 10 EU selling video games Analysis, Top 10 Japan selling video games Analysis, Top 10 NA selling video games , which is our fourth milestone data visualization. The next process is responsive and design of dashboard, is a graphical user interface that displays information and in an organized, easy-to-read format, which is our fifth milestone dashboard.

Further process is number of scenes of story, a data story is way of presenting data and analysis in a narrative format, intending to make the information more engaging and easier to understand, which is our sixth milestone story. Then, amount of data rendered to DB, utilization of data filters, number of

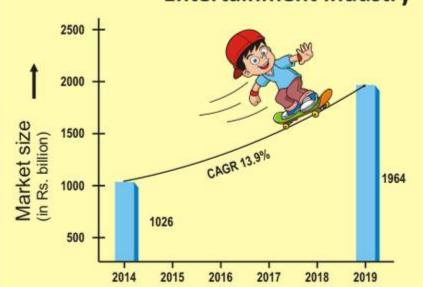
calculation fields, number of visualization or graphs, then save to tableau public, which is our seventh milestone performance testing. The next process is embed dashboard and story with web bootstrap, we made a template of our project using bootstrap templates and we included our dashboard and story with the template, which is our eighth milestone web integration project demonstration and documentation is our nineth milestone. We have nine milestone in our project handbook we completed our project Uncovering the gaming industry's hidden games: A comprehensive analysis of video game sales with tableau.

7. Future Scope:

- A new feature adding in tableau analytics in the project of Uncovering the gaming Industry's hidden games: A comprehensive analysis of videogame sales, is add an age based games visualization sheets.
- ➤ For example A some types of games only played by children under the age of 18. So, this type of game current data, top 10 this type game and children knowledge based games etc.
- Above 18 age peoples used video game current data visualization, is particularly knowledge gain based games visualization. This age group of people to use an job related video game sales[Top 10 video game visualization in particular period] visualization in Tableau desktop.



Double Growth than Global Media and Entertainment Industry



Source: http://articles.economictimes.indiatimes.com/2015-03-25/news/60475109_1_revenue-growth-digital-media-growth-rate

The Indian market is poised to grow at a CAGR of 13.9 per cent, from INR 1026 billion in 2014 to INR 1964 billion by 2019, almost double that of the global media and entertainment industry.

