

# Visualizing Snowflake Data in Tableau to Maximize Insights

Data Sheet | LumenData

Learn how Tableau and Snowflake make a great combination to streamline data analysis and reporting processes. Expect a deep dive into the key steps that highlight the simple integration between Tableau and Snowflake. Also, learn how it enables businesses to take faster and more informed decisions.

## **TABLEAU:**

Leading data visualization software company focused on business intelligence and data analysis. The visual analytics platform makes it simpler to explore and manage data. Tableau offers analytics solutions for everyone – right from analysts and executives to IT and business users.

## **SNOWFLAKE:**

Global cloud-based analytical data warehouse leader, driving organizations across industries toward smarter products, services, and strategies. Snowflake's multi-cluster shared data architecture helps consolidate data warehouses, data lakes, and data marts into a single source of truth.

## INTRODUCTION:

Research says that global data creation is predicted to grow to more than [180 zettabytes](#) by 2025. As businesses continue to generate huge volumes of data every day, they face challenges around accurate data access, visualization, and analytics. This is where the Snowflake and Tableau duo comes in. While Snowflake offers a SaaS platform for data storage and processing, Tableau provides a self-service data analytics platform. The data sheet will explain the ins and outs of visualizing Snowflake data in Tableau and how the pair has the best advantages to offer for data-led organizations.

Before we elaborate on how well Snowflake and Tableau complement each other, here's a quick definition of data visualization.

Data visualization is the representation of data via graphs, charts, maps, infographics, and other visual elements. Visual displays make it easier for businesses to comprehend and break down complex data relationships and generate better insights, leading to well-informed decision-making. Some of the types of visualizations include dashboards, geospatial, area maps, bar charts, bullet graphs, heat maps, histograms, highlight tables, pie charts, and treemaps.

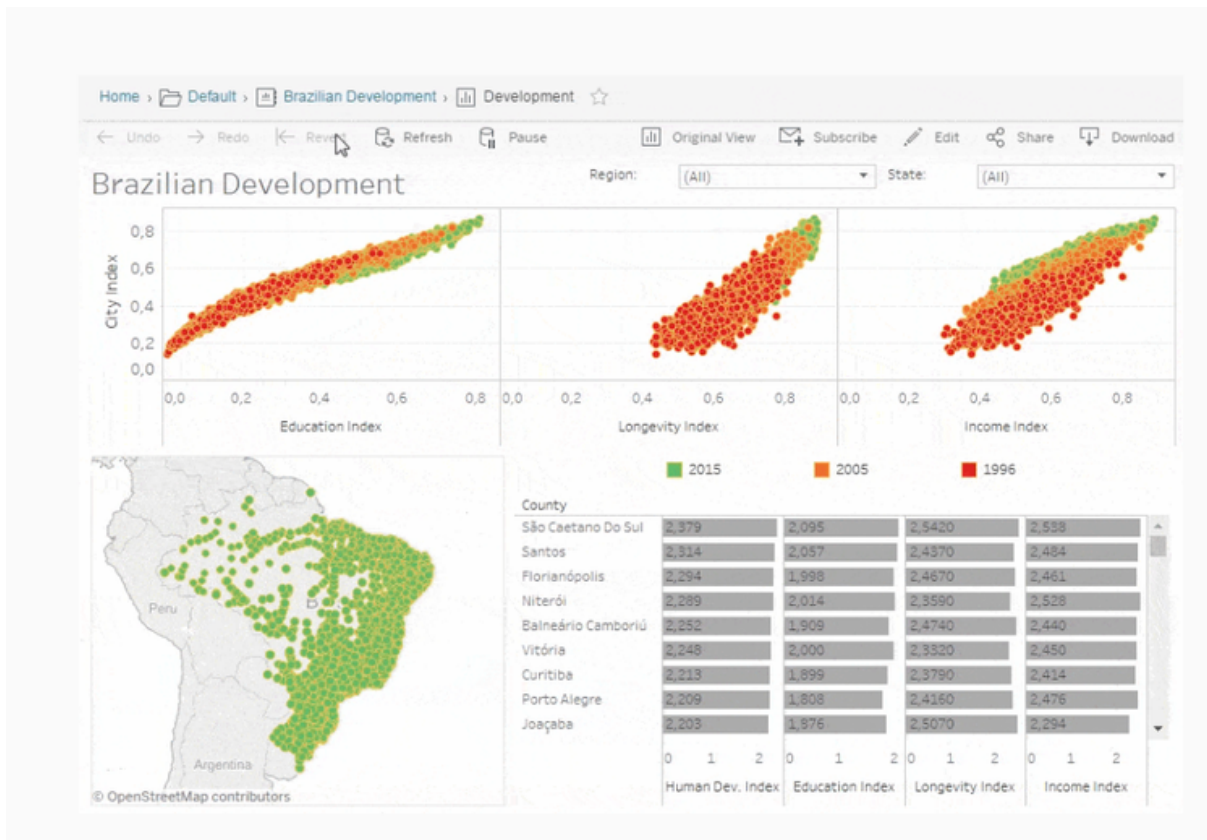
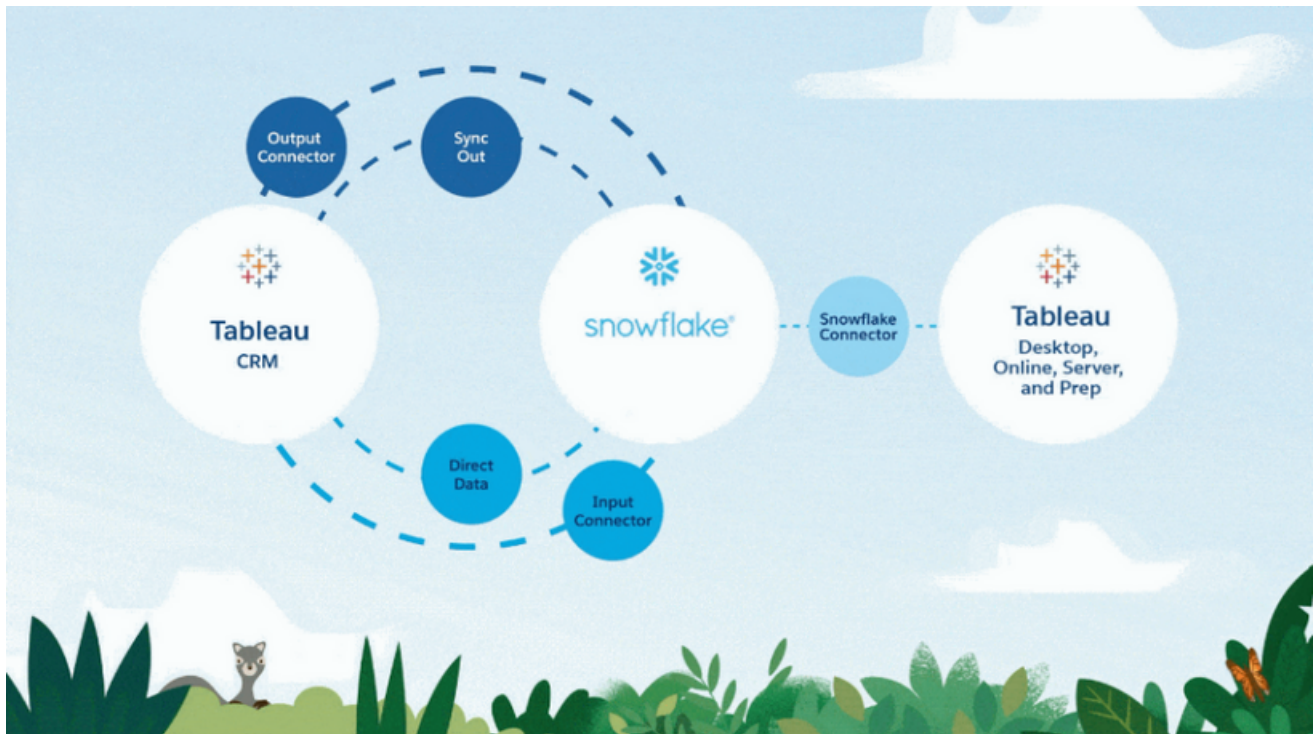


Image source: [Tableau](#)

## HOW SNOWFLAKE AND TABLEAU WORK WONDERS TOGETHER



Organizations that leverage Tableau can derive a lot of value from Snowflake's scalability. Thanks to the easy drag and drop option in Tableau, users can connect to Snowflake in no time and start resolving data complexities. Tableau enables you to choose from different visualization types that can be combined to create interactive dashboards and elevate data visualization and analytics.

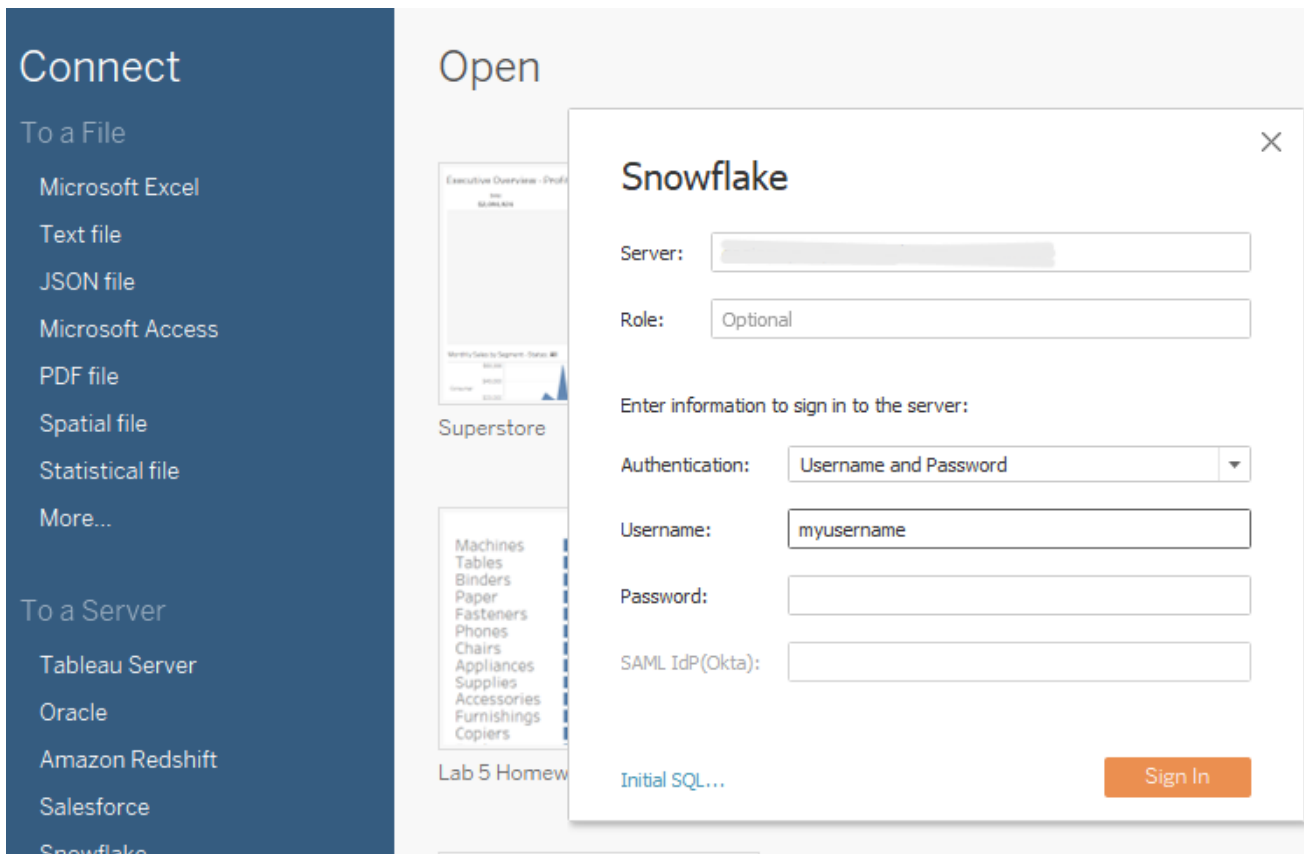
Snowflake's ability to handle structured and semi-structured data together very well matches Tableau's potential to query both tables at the same time.

One of the similarities between Snowflake and Tableau is their simple-to-use functionality. Snowflake offers automatic encryption and adapts well to usage patterns. Tableau doesn't require any code or custom SQL to connect to your data in Snowflake. With a simple drag and drop, you can handle dashboard changes.

# SNOWFLAKE+TABLEAU: POWER YOUR VISUALIZATION CAPABILITIES

## 1) CONNECTION:

Go to connectors inside the 'connection manager' / 'connect tab' and select Snowflake. You need to have credentials for making the connection. Select the required authentication type to sign in.



## 2) SNOWFLAKE TO TABLEAU:

Imagine a CSV file in a local machine that needs to be pushed into Snowflake. First, you create a table with the same format as the CSV file. Then, you create a stage. It can be an internal or external stage based on the requirement where the stage is the object and acts as a temporary storage for data. Then using copy into command, data can be loaded into the Snowflake database table.

### 3) VISUALIZATION:

Here we use a dataset based on video games. It's from IMDB (Internet Movie Database).

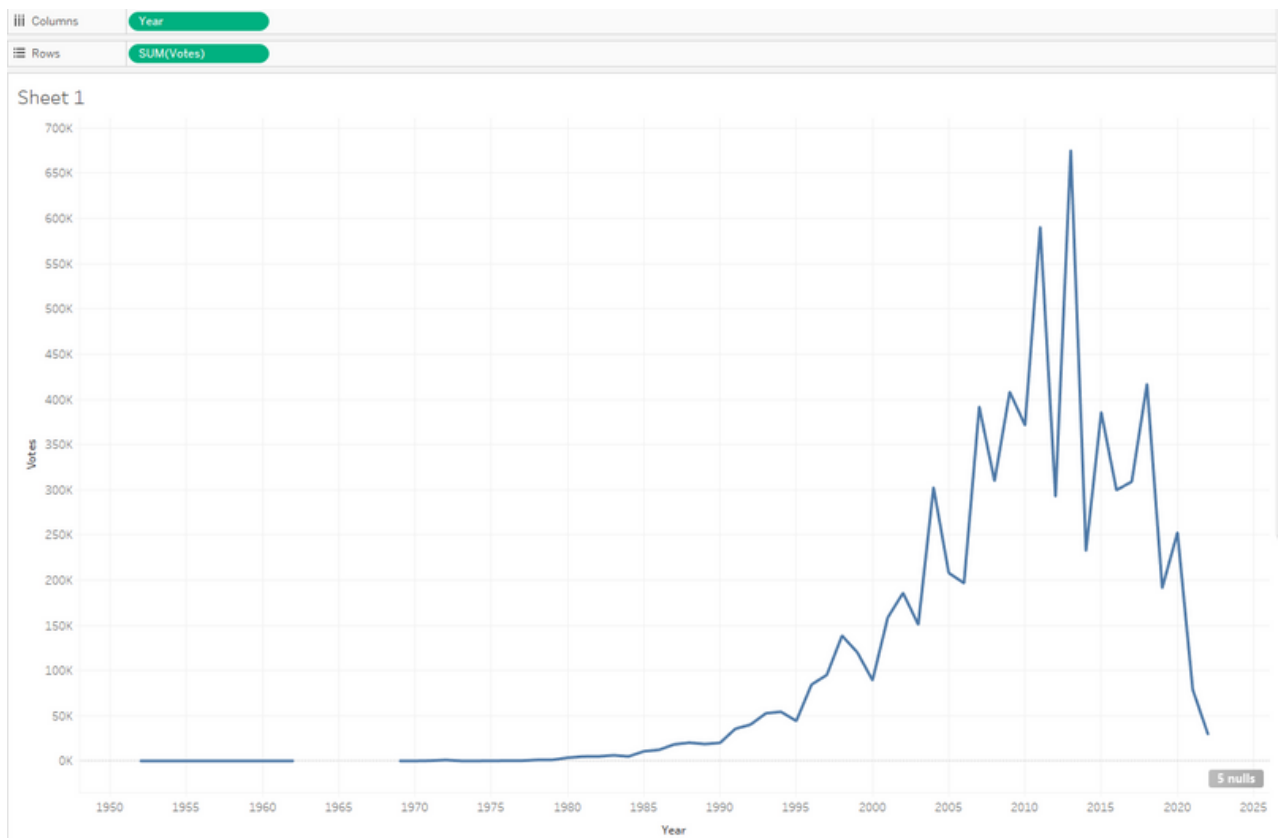
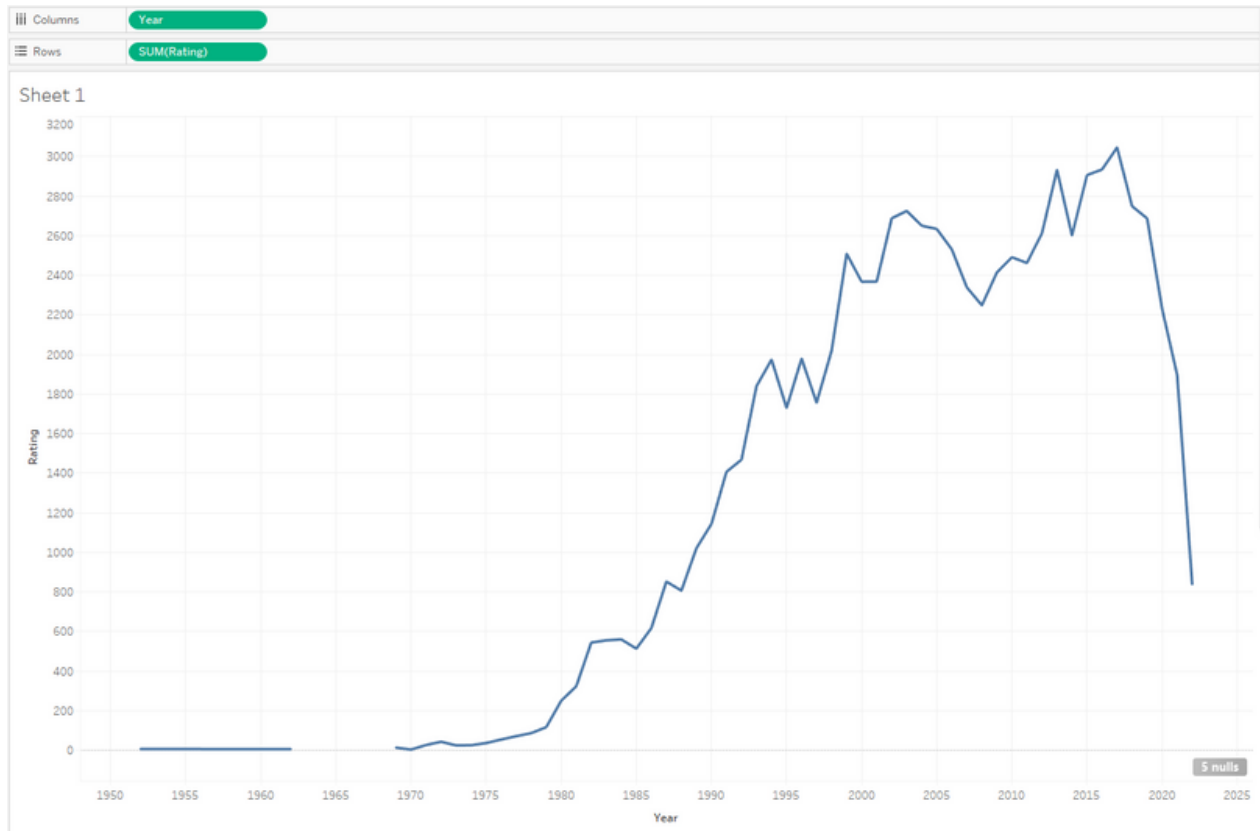
We have data on games for the past few years and want to learn when the actual bloom in the gaming industry happened. Hence, we must analyze/visualize the data.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1		name	url	year	certificate	rating	votes	plot summary	Action	Adventure	Comedy	Crime	Family	Fantasy	Mystery
2	0	Spider-Man	<a href="https://www.imdb.co">https://www.imdb.co</a>	2016	T	9.2	20,759	When a new villain t	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE
3	1	Red Dead Redempt	<a href="https://www.imdb.co">https://www.imdb.co</a>	2018	M	9.7	35,703	Amidst the decline o	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE
4	2	Grand Theft Auto V	<a href="https://www.imdb.co">https://www.imdb.co</a>	2013	M	9.5	59,986	Three very different c	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
5	3	God of War	<a href="https://www.imdb.co">https://www.imdb.co</a>	2018	M	9.6	26,118	After wiping out the i	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
6	4	Uncharted 4: A Thief	<a href="https://www.imdb.co">https://www.imdb.co</a>	2016	T	9.5	28,722	Thrown back into the T	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
7	5	The Last of Us: Part I	<a href="https://www.imdb.co">https://www.imdb.co</a>	2020	M	8.5	30,460	Five years after the e	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
8	6	Horizon Forbidden W	<a href="https://www.imdb.co">https://www.imdb.co</a>	2022	T	9.2	2,979	Loyal treis into an arc	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE
9	7	The Last of Us	<a href="https://www.imdb.co">https://www.imdb.co</a>	2013	M	9.7	60,590	In a hostile, post-papi	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
10	8	Detroit: Become Hum	<a href="https://www.imdb.co">https://www.imdb.co</a>	2018	M	9.2	16,907	Take control of three	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
11	9	Death Stranding	<a href="https://www.imdb.co">https://www.imdb.co</a>	2019	M	8.8	8,136	Deliverman Sam Pl	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
12	10	Ghost of Tsushima	<a href="https://www.imdb.co">https://www.imdb.co</a>	2020	M	9.3	8,452	Set in 1274 on the T	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
13	11	Spider-Man: Miles M	<a href="https://www.imdb.co">https://www.imdb.co</a>	2020	T	8.5	5,835	In this sequel of Man	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
14	12	Cyberpunk2077	<a href="https://www.imdb.co">https://www.imdb.co</a>	2020	M	8	8,118	In Night City, a meci	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
15	13	Uncharted: Drake's F	<a href="https://www.imdb.co">https://www.imdb.co</a>	2007	T	8.5	20,343	Treasure hunter Nath	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE
16	14	Batman: Arkham Koi	<a href="https://www.imdb.co">https://www.imdb.co</a>	2015	M	9	18,970	With his back agains	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE
17	15	God of War: Ragnar	<a href="https://www.imdb.co">https://www.imdb.co</a>	2022	M			Kratos and his sen Ai	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
18	16	Far Cry 6	<a href="https://www.imdb.co">https://www.imdb.co</a>	2021	M	7.6	1,922	As dictator of Yara, J	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE
19	17	Grand Theft Auto: S	<a href="https://www.imdb.co">https://www.imdb.co</a>	2004	M	9.4	39,629	A family tragedy pro	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
20	18	MultiVersus	<a href="https://www.imdb.co">https://www.imdb.co</a>	2022	T	7.8	244	A crossover fighting g	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
21	19	Far Cry 3	<a href="https://www.imdb.co">https://www.imdb.co</a>	2012	M	8.9	18,775	While skydiving, Jac	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
22	20	Star Wars Jedi: Fall	<a href="https://www.imdb.co">https://www.imdb.co</a>	2019	T	8.5	11,316	Set shortly after Rev	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
23	21	Elden Ring	<a href="https://www.imdb.co">https://www.imdb.co</a>	2022	M	9.5	4,108	In a dark fantasy wor	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
24	22	Xenoblade Chronich	<a href="https://www.imdb.co">https://www.imdb.co</a>	2022	T	9	84	In the world of Aionis	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE
25	23	Uncharted: The Nat	<a href="https://www.imdb.co">https://www.imdb.co</a>	2015	T	9.4	5,383	A remastered collect	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
26	24	Assassin's Creed Val	<a href="https://www.imdb.co">https://www.imdb.co</a>	2020	M	8.1	4,072	England in the age c	TRUE	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE
27	25	Marvel's Guardians o	<a href="https://www.imdb.co">https://www.imdb.co</a>	2021	T	8.7	3,381	After an epic conflic	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
28	26	Grand Theft Auto: V	<a href="https://www.imdb.co">https://www.imdb.co</a>	2002	M	9.2	26,397	After being released	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
29	27	Uncharted 2: Among	<a href="https://www.imdb.co">https://www.imdb.co</a>	2009	T	9.4	25,048	After being traped d	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
30	28	The Witcher 3: Wild	<a href="https://www.imdb.co">https://www.imdb.co</a>	2015	M	9.7	28,083	A monster hunter for	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
31	29	Fallout: New Vegas	<a href="https://www.imdb.co">https://www.imdb.co</a>	2010	M	8.9		A moody hunter for	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
32	30	Command & Conquer	<a href="https://www.imdb.co">https://www.imdb.co</a>	2008	T	7.5			TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE

After connecting to the data source inside Tableau, you get data fields. You need to know about the fields before proceeding with the visualization. We drag numerical data fields (votes, ratings, or other kinds of measures) to rows and dimensions, like the year in columns - to know the year when the gaming industry was at its peak.



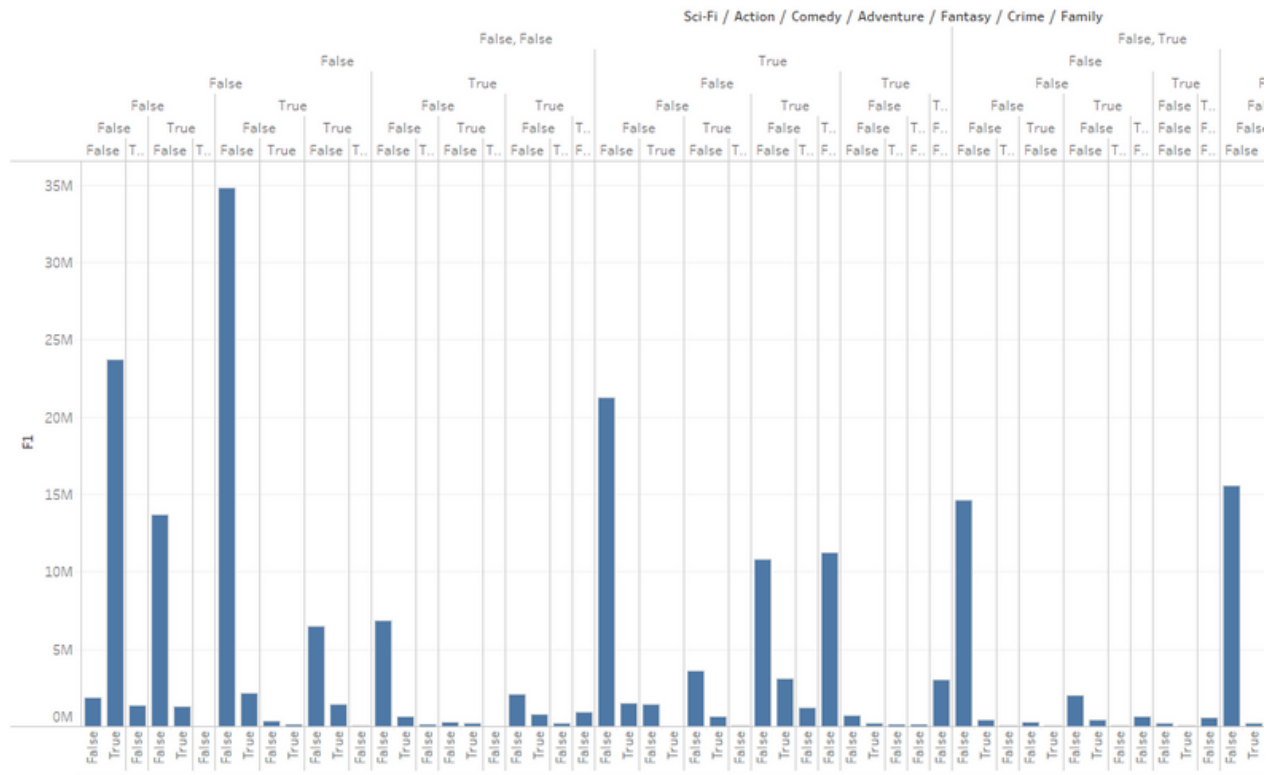
You will see a graph or chart presenting the popularity based on votes or ratings provided by users, reviewers, gamers, and others.



So, on the basis of the sum of votes and the sum of ratings, we can say the gaming industry became popular in that period of time.

With the data we have, we can visualize the most popular genre. For that, we make use of dimensional fields like the genre (action, adventure, etc) and the total number of records. Here it's FI(field name). Next, choose the required chart type. This way we see the visual representation of the data.

Sheet 1



## ANALYZE:

Tableau can be a data management, data analytics, and data visualization tool. So, we can perform a few analytical techniques on the data to find some patterns. Analytical techniques include sorting, filtering, aggregation, outliers, and more.

## ABOUT LUMENDATA:

LumenData is a leading provider of Enterprise Data Management, Cloud & Analytics solutions. We help businesses navigate their data visualization and analytics anxieties and enable them to accelerate their innovation journeys.

Founded in 2008, with locations in multiple countries, LumenData is privileged to serve over 100 leading companies, including KwikTrip, Versant Health, US Food & Drug Administration, US Department of Labor, Cummins Engine, BCG, and others. LumenData is SOC2 certified and has instituted extensive controls to protect client data, including adherence to GDPR and CCPA regulations.

Get in touch to discuss how we can facilitate data-driven transformation for your organization.

---

## MEET OUR AUTHORS

---



**Ankit Kumar**  
Technical Lead



**Vijay Premkumar**  
Associate Consultant