

-:Project Documentation & Report :-

PROJECT TITLE:-

Data-Driven Insights On Olympic Sports Participation And Performance

TEAM :-

Team ID : LTVIP2023TMID08697

Team Size : 5

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- INTRODUCTION :-

- **OVERVIEW :-** The Olympic Games, the world's premier sporting event, bring together athletes from all corners of the globe to showcase their talents, determination, and sportsmanship. Over the years, the Games have evolved into a symbol of unity and excellence, providing a platform for athletes to compete at the highest level and inspire millions worldwide.

This project aims to harness the power of data-driven analysis to explore and uncover valuable insights into Olympics participation and performance. By analyzing historical data from various Olympic Games, we seek to shed light on trends, patterns, and correlations that can influence athlete participation rates and ultimately impact their performance on the grand stage.

Data Collection and Preprocessing:-

A comprehensive dataset was collected from kaggle Analyze historical data to identify trends in sports participation over time, by country, gender, and age group.Clean and prepare the data for analysis. Handle missing values, outliers, and inconsistencies.

Exploratory Data Analysis (EDA):-

EDA was conducted to gain a deep understanding of the dataset. Visualizations and summary statistics helped in understanding the characteristics of the data and guided further analysis.

Creating a Flask web application:-

For Data-Driven Insights On Olympic Sports Participation
And Performance data involves building an interface where
We can input factors like medals won, records broken, and
other performance metrics.

If applicable, consider building predictive models to forecast
future participation and performance trends.

- PURPOSE :-

The purpose of data-driven insights on Olympic sports participation and performance into the competitive

The data-driven insights on Olympics sports helps in Building predictive models based on historical data allows for forecasting future participation trends and performance outcomes. These models can help sports organizations and policymakers plan and strategize effectively for upcoming Olympic Games and longterm sports development.

By analyzing historical data and trends, data-driven insights provide a factual foundation for decision-making processes within sports organizations, governments, and other stakeholders. It enables them to make informed choices regarding resource allocation, training programs, talent identification, and sports development initiatives.

By examining performance metrics, such as medals won, records broken, and other achievements, data-driven insights can highlight factors that contribute to athletic success. This information aids athletes and coaches in refining training regimens, setting performance targets, and improving overall competitive performance.

Overall, the purpose of data-driven insights on Olympic sports participation and performance is to empower stakeholders with

knowledge that can lead to better decision-making, improved athlete development, and a more inclusive and competitive landscape for Olympic sports on a global scale.

- **KEY OUTCOMES:**

1. Enhanced Athlete Performance
2. Identification of Performance Enablers
3. Promotion of Gender Equity and Inclusivity
4. Long-Term Sports Planning
5. Optimized Sports Development Strategies

- **LITERATURE SURVEY:**

A literature survey on data-driven insights on Olympic sports participation and performance would involve reviewing existing research, studies, and publications related to the topic

So Olympic sports participation and performance typically covers the following aspects:

Sports Analytics: Explore research papers and articles on sports analytics, which often include studies on data-driven approaches to understanding sports participation and performance.

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understanding sports participation and performance.

Sports Talent Identification and Development: Search for research on data-driven approaches to talent identification, athlete development, and the impact of sports programs on nurturing young talents for Olympic sports.

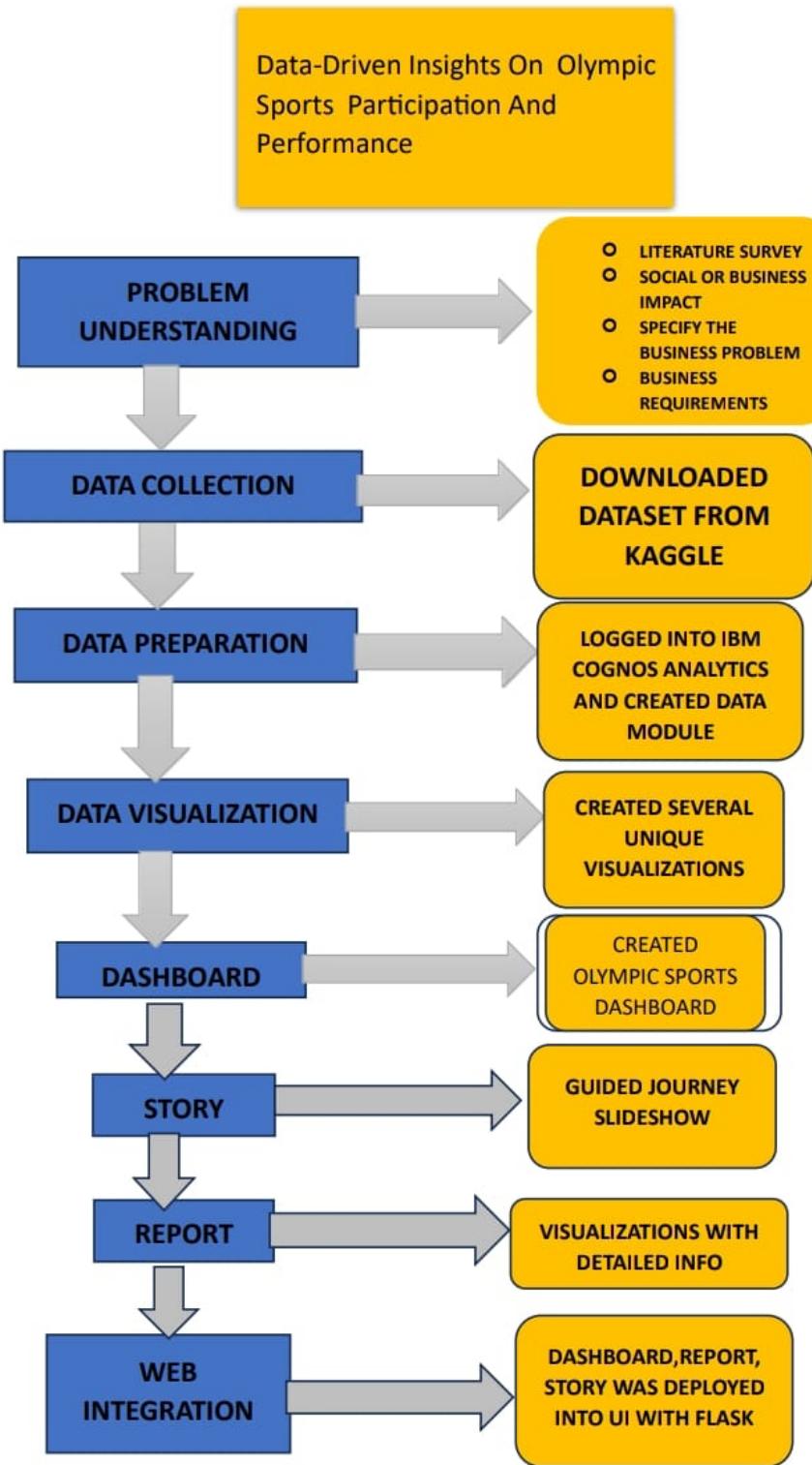
Performance Enablers in Olympic Sports: Explore studies that analyze factors beyond individual athlete talent, such as sports infrastructure, funding, and training facilities, as potential performance enablers in Olympic sports.

THEORITICAL ANALYSIS:-

Creating a detailed block diagram for Competitive Analysis Of Olympic sports participation and performance involves breaking down the process into key steps and components.

Below is a high-level block diagram outlining the main stages and elements involved in data-driven insights on Olympic sports participation and performance

The block diagram illustrates the end-to-end process of data-driven insights on Olympic sports participation and performance



- SOFTWARE OR HARDWARE DESIGNING:-

Software Requirements:

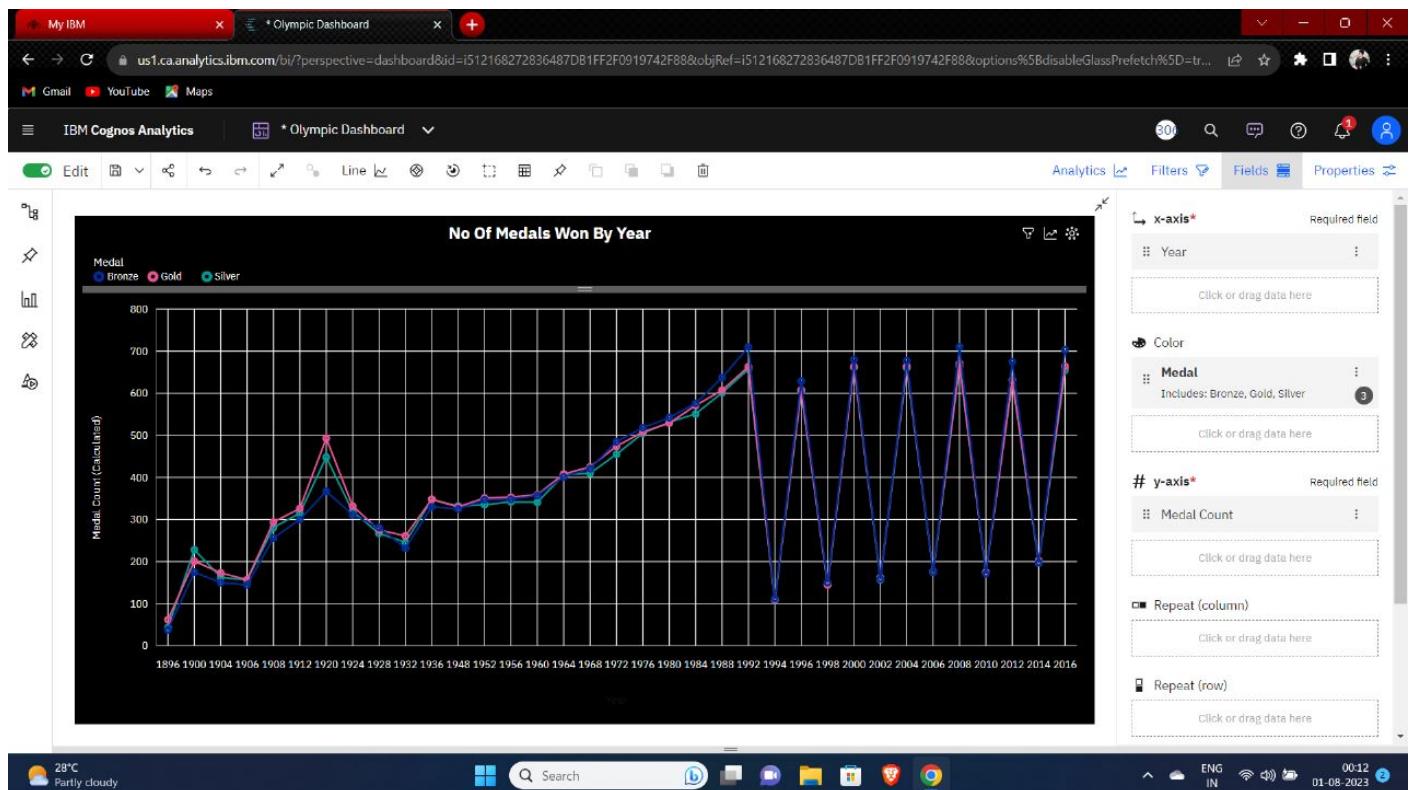
- IBM cognos analytics Tool.
- Flask.
- Integrated Development Environment (IDE)-Spyder.

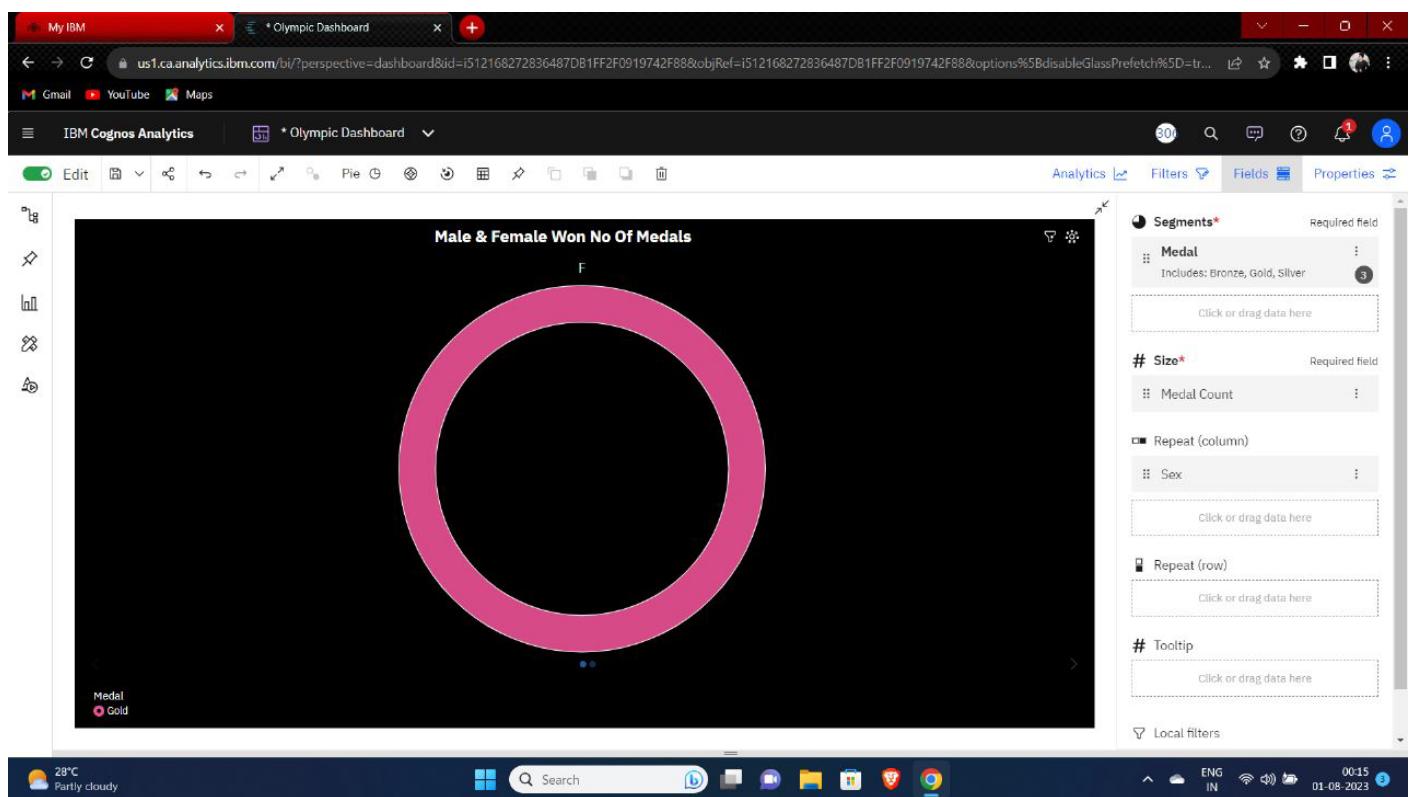
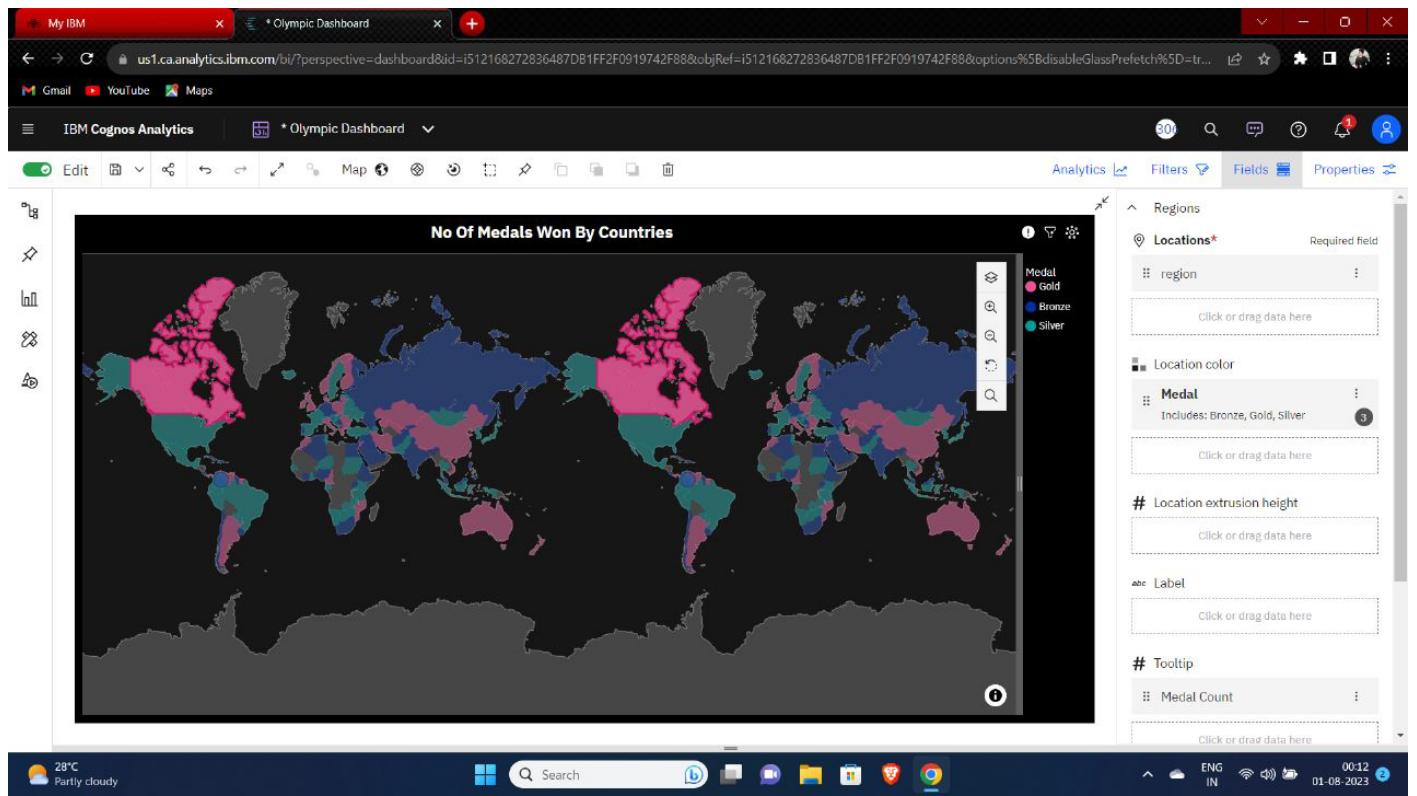
Hardware Requirements:-

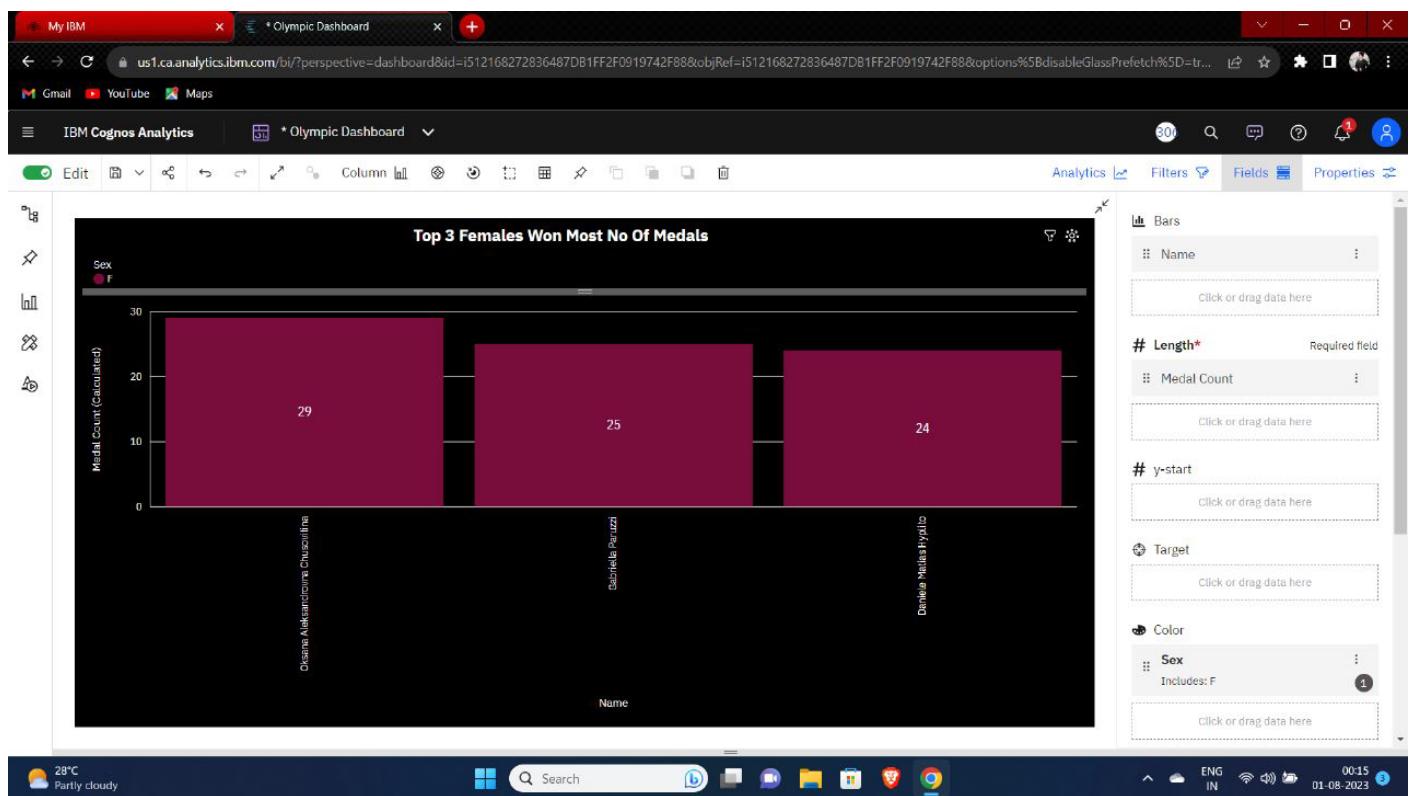
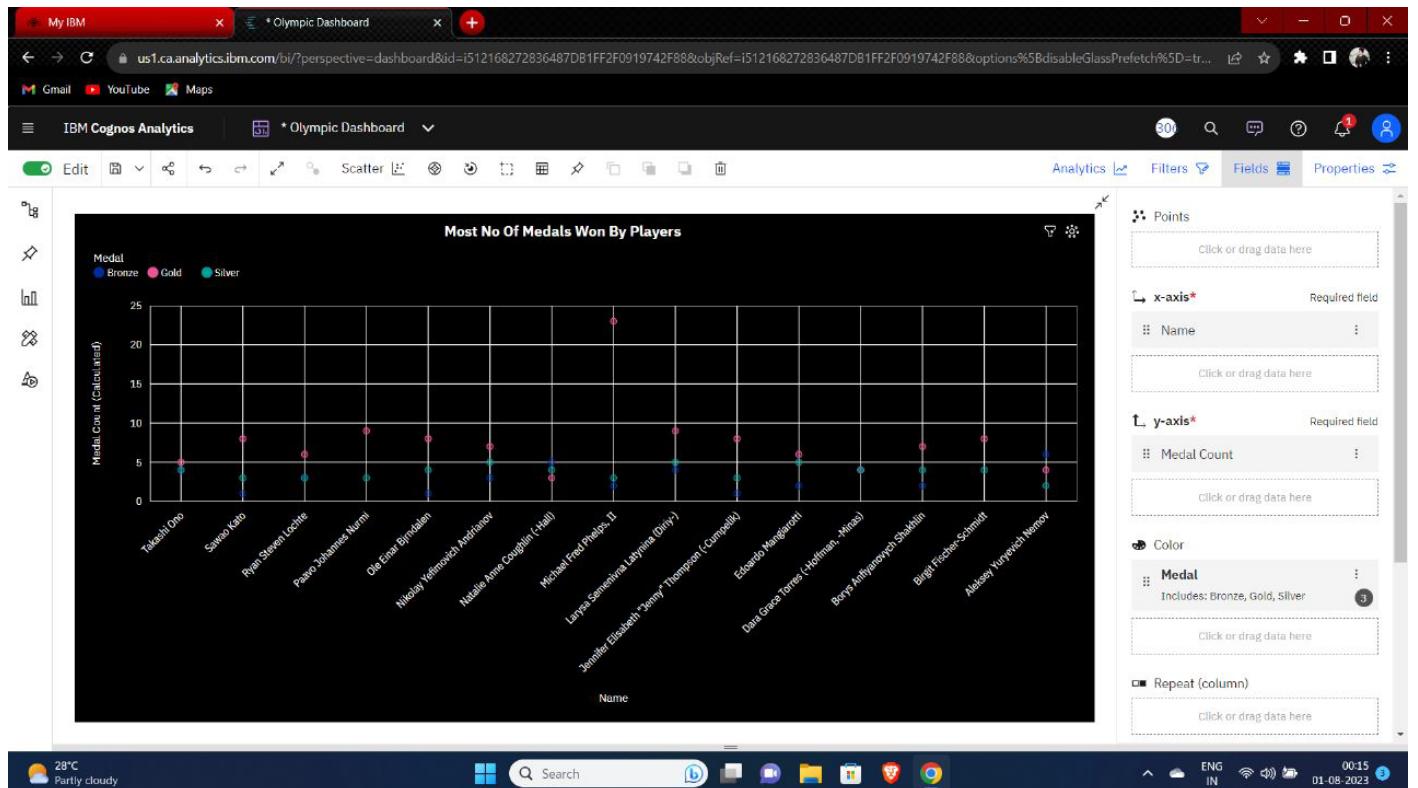
Minimum System Requirements(RAM-4GB,Quad core Processor Or above)

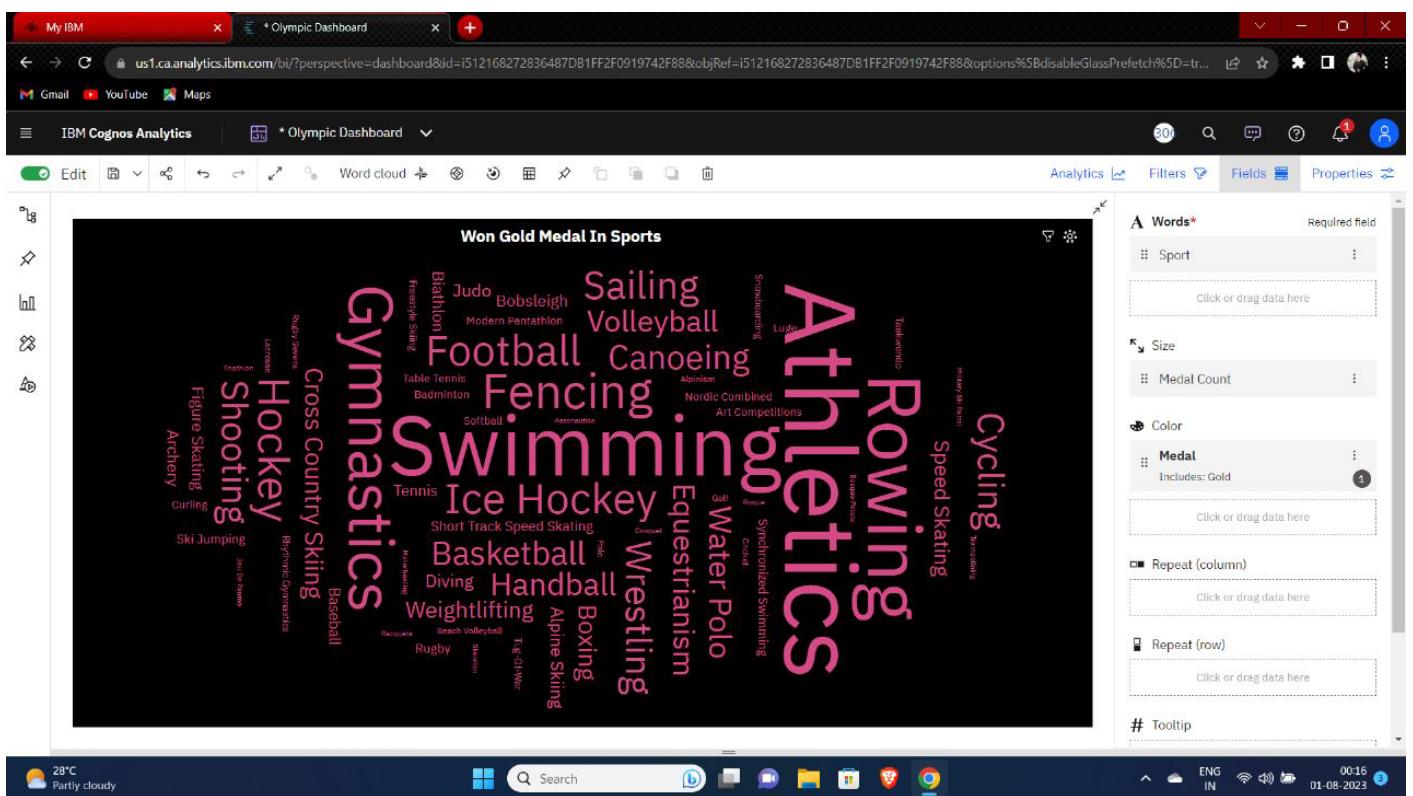
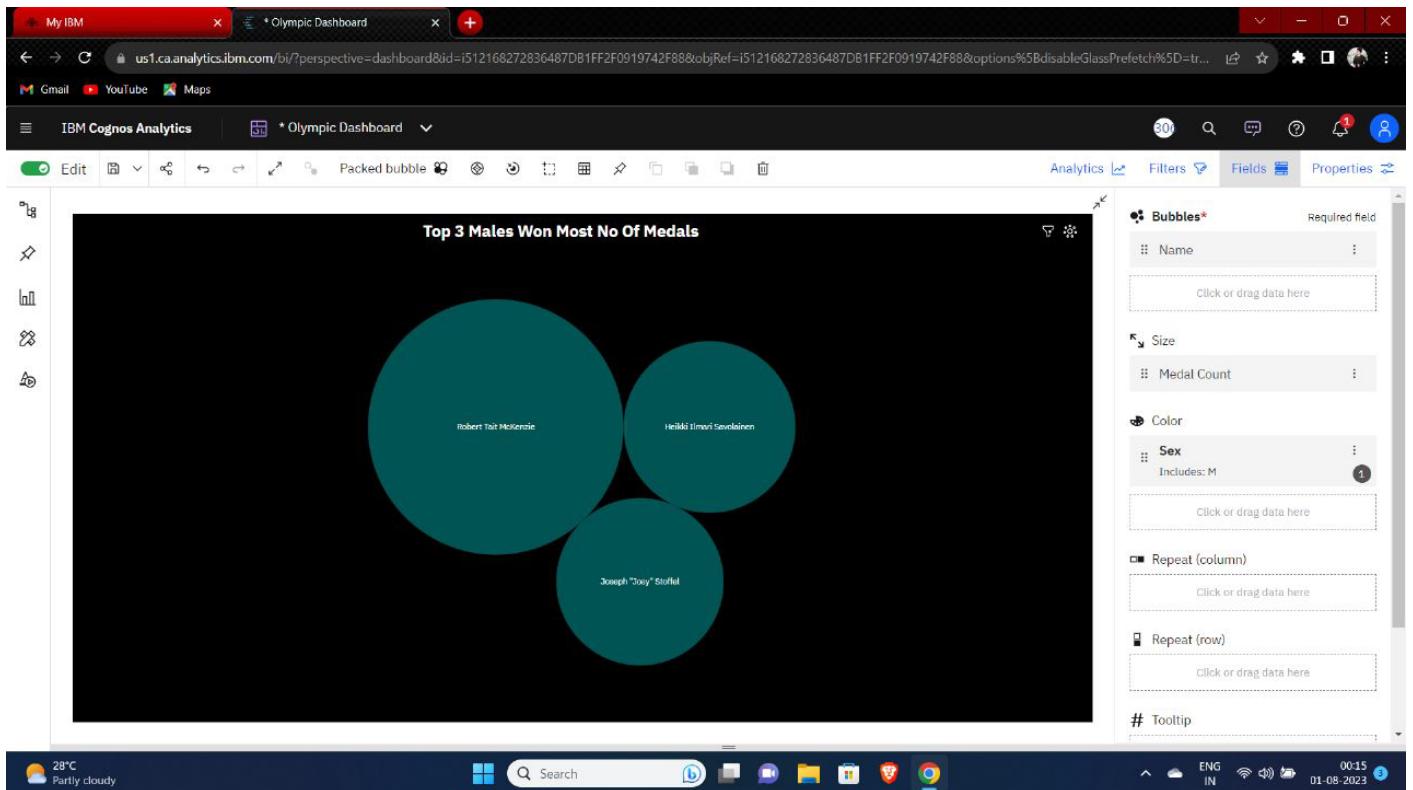
- RESULT:-

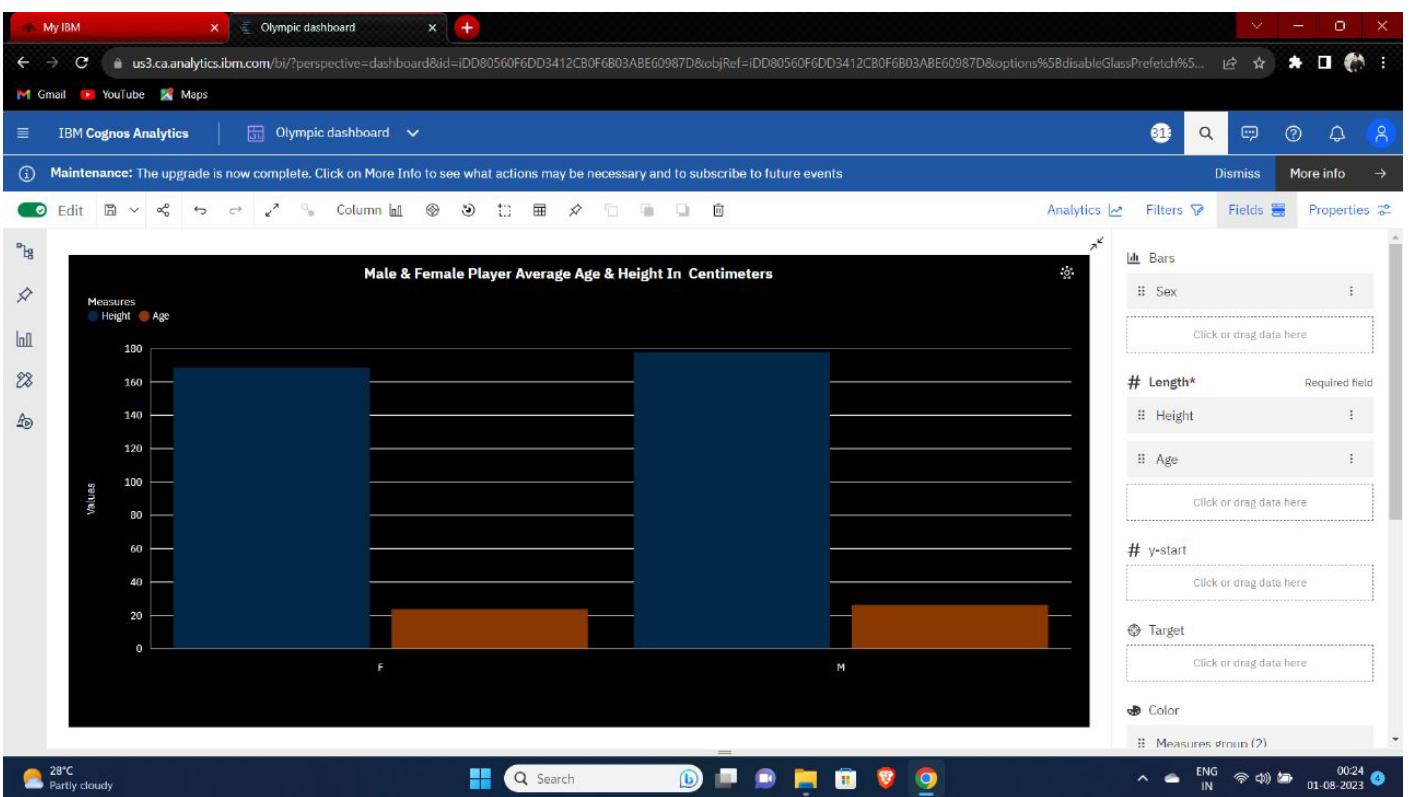
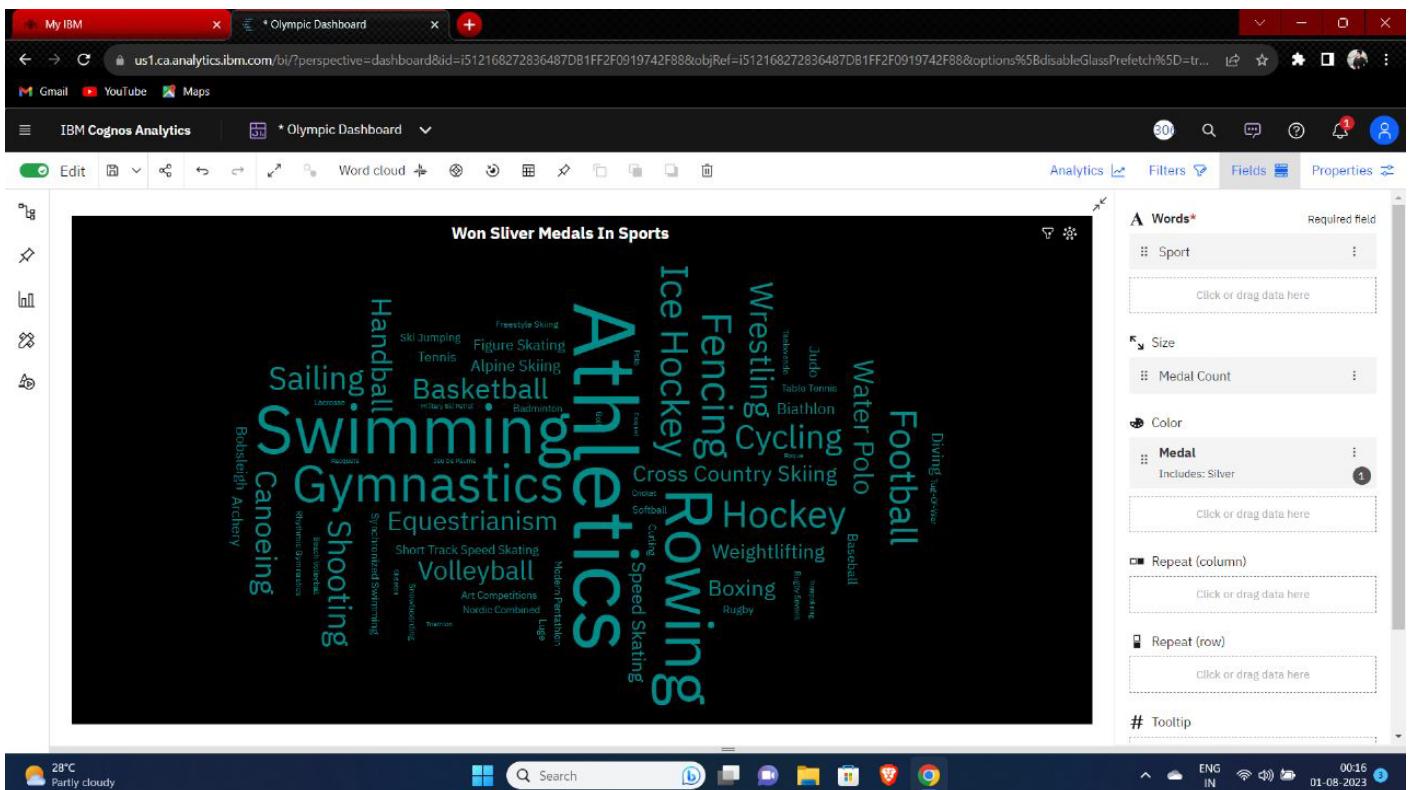
DATA VISUALIZATIONS:-

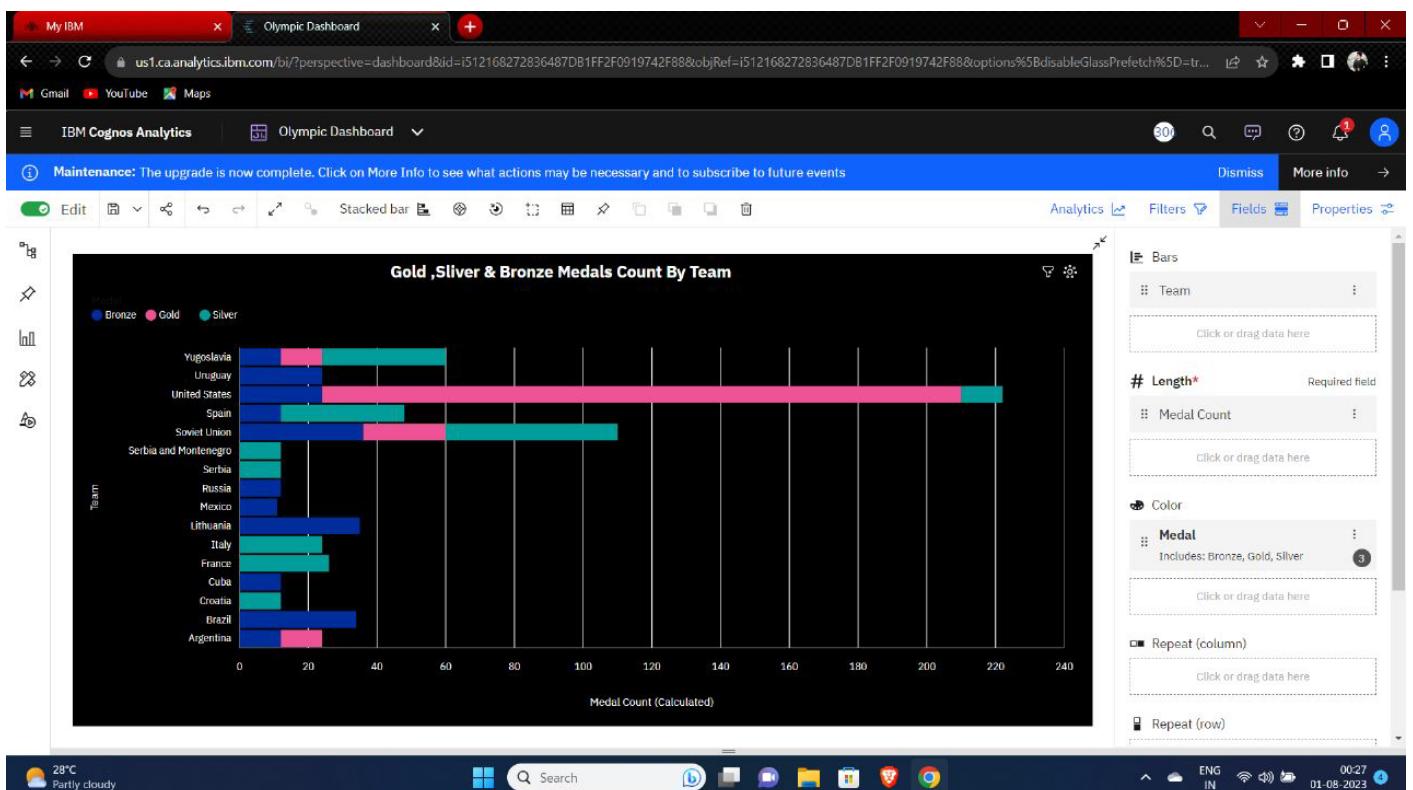
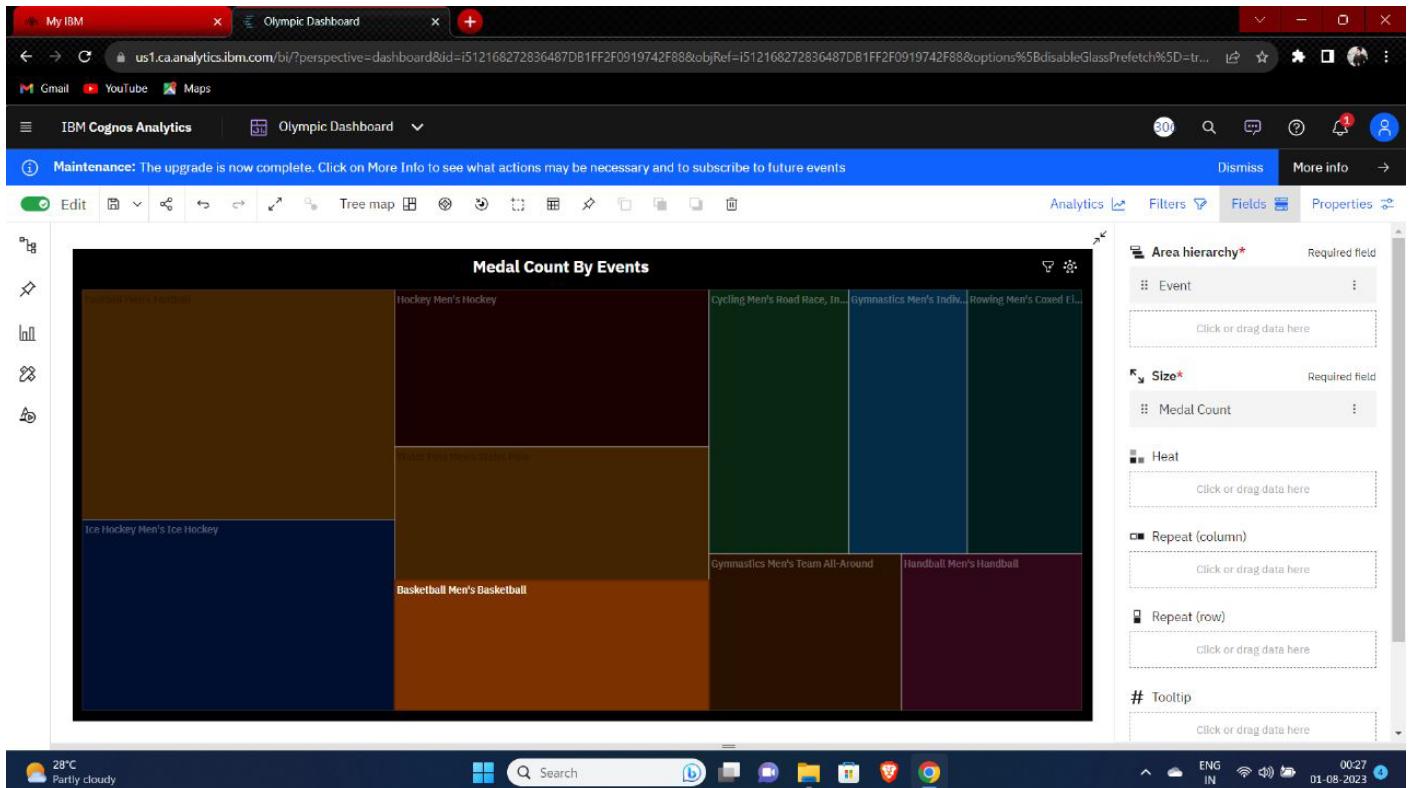






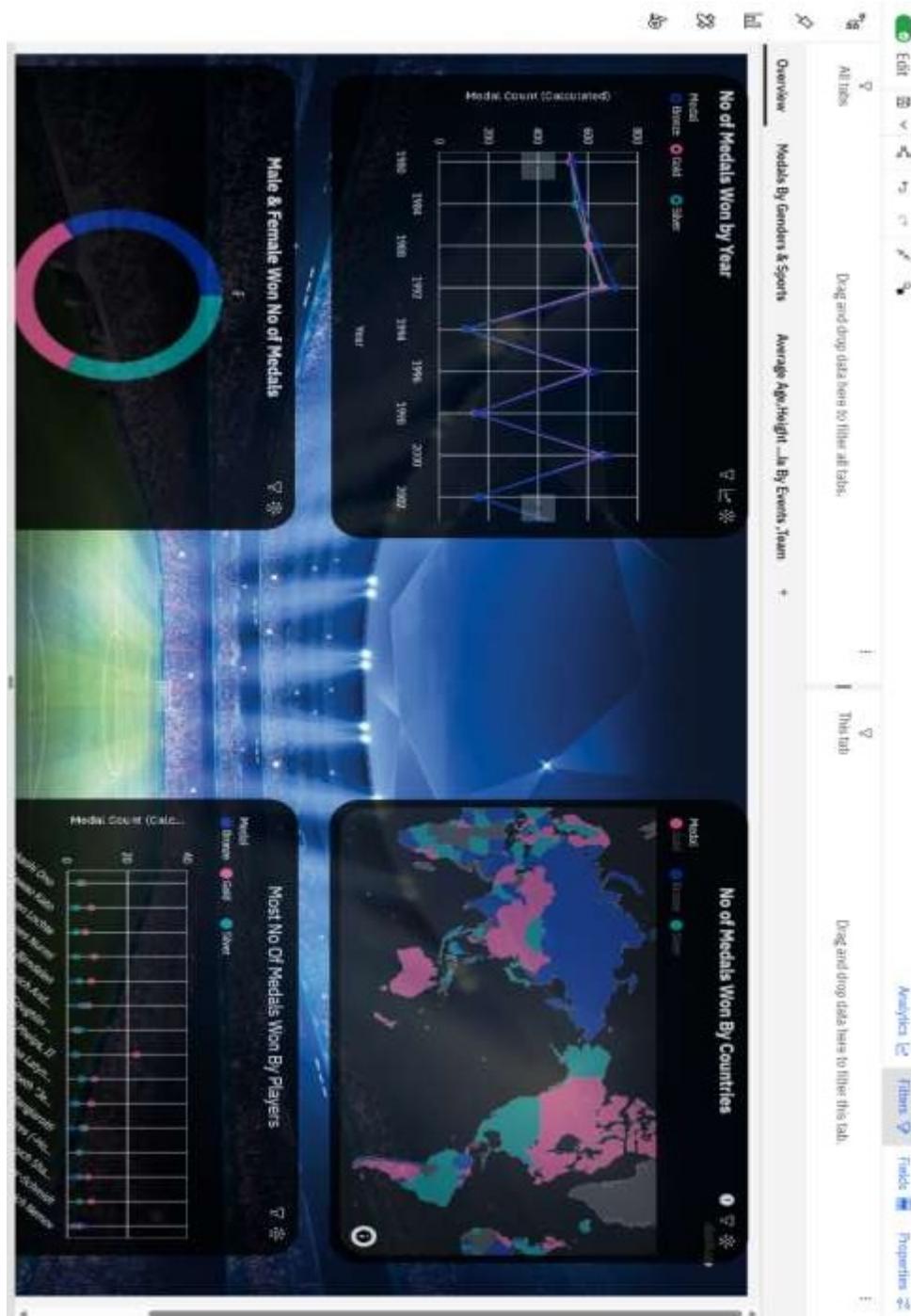


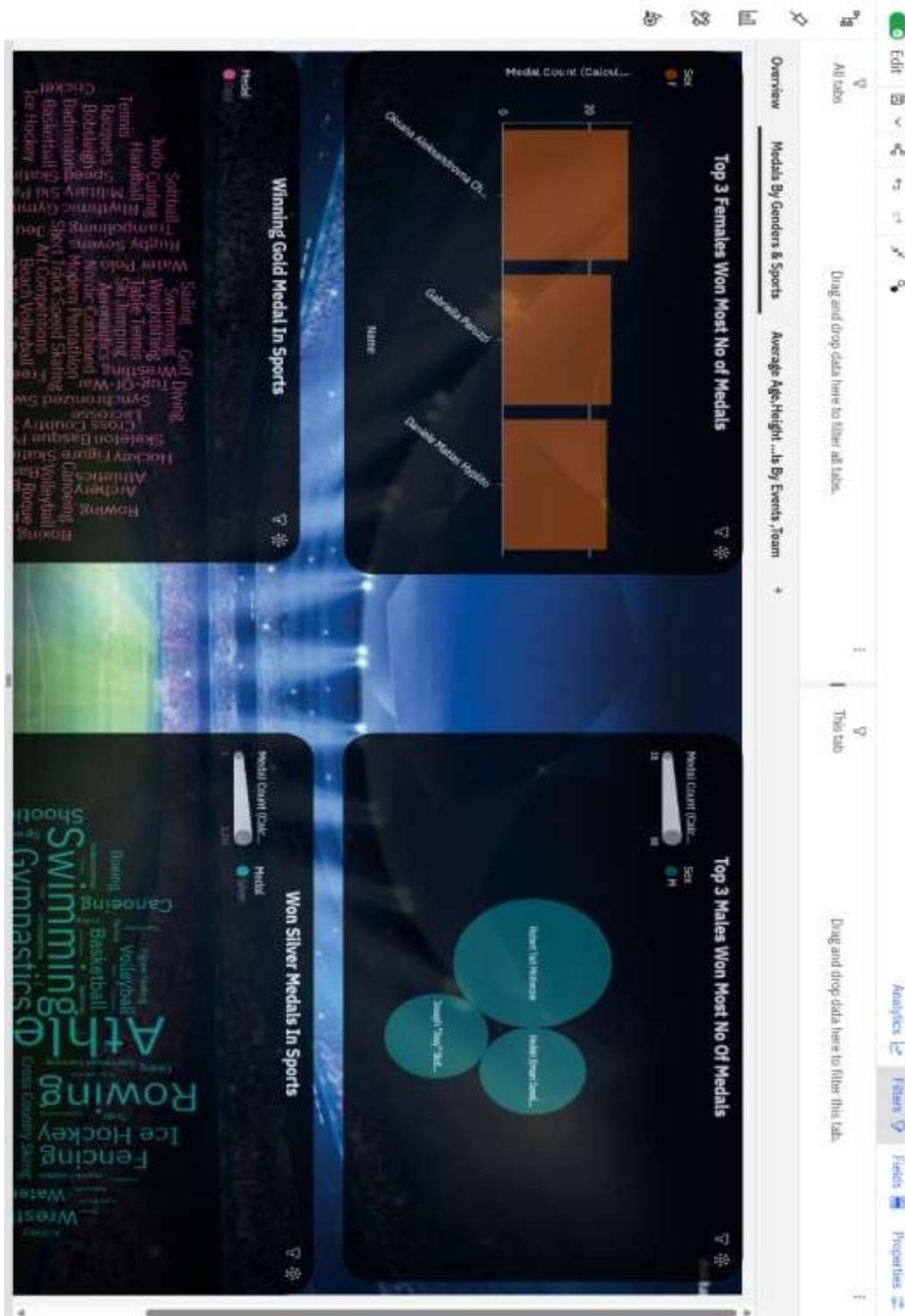


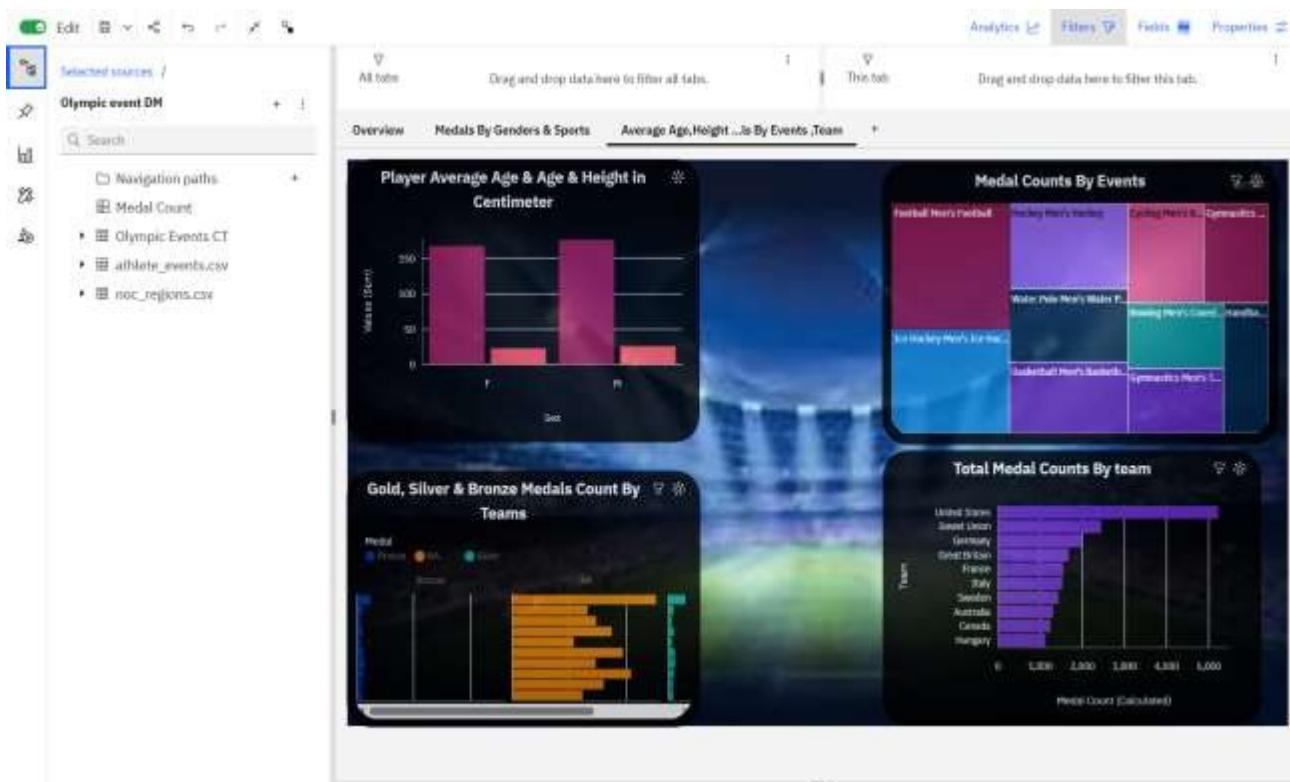




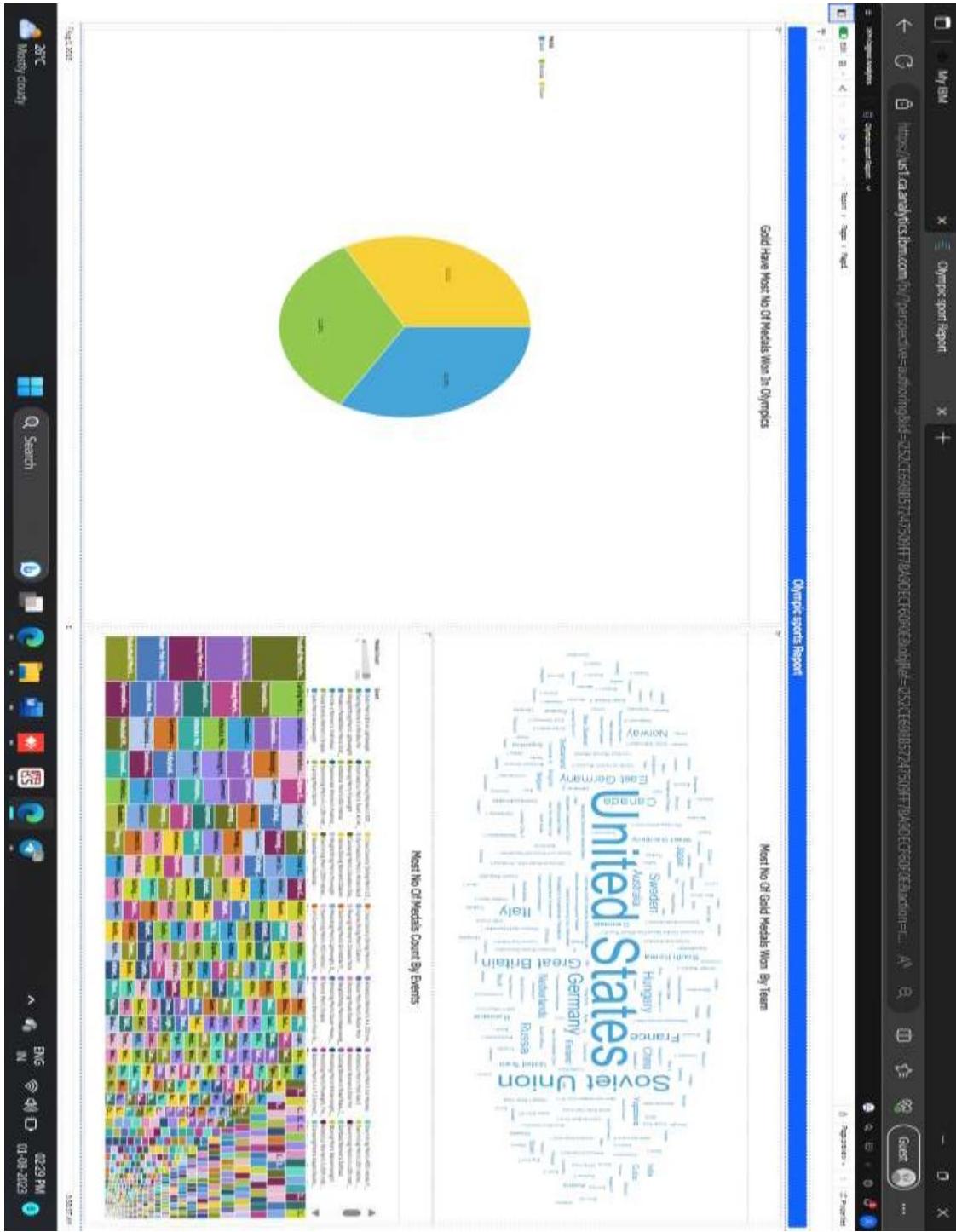
OLYMPICS DASHBOARD :-







OLYMPICS REPORT



OLYMPIC SPORTS PARTICIPATION AND PERFORMANCE SLIDE STORY:-

At the first Olympic Games in 1896, there were nine sports contested. Since that time many sports have been added (and removed too) from the program. Only five sports have been contested at every summer Olympic Games since 1896: Athletics, cycling, Fencing, Gymnastics and Swimming.

In 2012 there were 26 Sports Contested, increasing to 28 in 2016, and 33 in 2020. The next Olympic Games in Paris 2024 are expected 32 sports with debut or breakdancing while karate, basketball & soft ball or dropped from the program.

Where Can We Uncover New Insights?

Most Olympic medals won by Male & Female Athletes

Countries with the most Olympic Medals Overall

What should We Do?

No visualization selected

Select a visualization with analytics support to view and manage the analytics settings.

Most Olympic Medals Won By A Female & Male Athletes

Top 3 Females Won Height No Of Medals

Athlete	Medals
Vra slavsk (-Odoilov)	11
Larysa Semenivna Latynina (Dri...	11
Natalie Anne Coughlin (-H...	10
Birgit Fischer-Schmidt 12	12
Jennifer Elisabeth "Jenny" Tho...	10
Dara Grace Torres (-Hoffman, -Minas) 12	12

Top 3 Medals Won Highest No Of Medals

Athlete	Medals
Michael Fred Phelps, II	28
Nikolay Yefimovich Andrianov	15
Dorys Anfimovich Shakhlin	13
Eduardo Mangarotti	13
Ole Einar Bjørndalen	13
Takushi Ono	13

0:08.3

0:12.0

No visualization selected

Select a visualization with analytics support to view and manage the analytics settings.

My IBM Olympic Sports Story

Gmail YouTube Maps

IBM Cognos Analytics | Olympic Sports Story

Edit Analytics Filters

Countries With The Most Olympic Medals Overall

Most No Of Medals By Top 10 Countries

Country	Medals
United States	~4800
Sweden	~1800
Soviet Union	~1500
Italy	~1200
Hungary	~1000
Great Britain	~800
Germany	~700
France	~600
Canada	~500
Australia	~400

Most No Of Gold Medals Won By Teams

United States

No visualization selected

Select a visualization with analytics support to view and manage the analytics settings.

Prev scene Next scene Scene 3 of 3 0:08.0 0:14.0

27°C Partly cloudy Search ENG IN 00:49 01-08-2023

This screenshot shows a dashboard titled 'Olympic Sports Story' with a dark blue background featuring stadium lights. It contains two main visualizations: a bar chart titled 'Most No Of Medals By Top 10 Countries' and a word cloud titled 'Most No Of Gold Medals Won By Teams'. The bar chart lists countries and their total medal counts. The word cloud highlights the United States as the top team. A message on the right indicates no visualization is selected, with a note to choose one with analytics support. The bottom navigation bar shows 'Scene 3 of 3' and a timeline from 0:08.0 to 0:14.0. The taskbar at the bottom includes weather information (27°C, partly cloudy) and system icons.

My IBM Olympic Sports Story

Gmail YouTube Maps

IBM Cognos Analytics | Olympic Sports Story

Analytics Filters

Countries With The Most Olympic Medals Overall

Highest No Of Medals By Top 10 Countries

Most No Of Gold medals Won By Team

United States

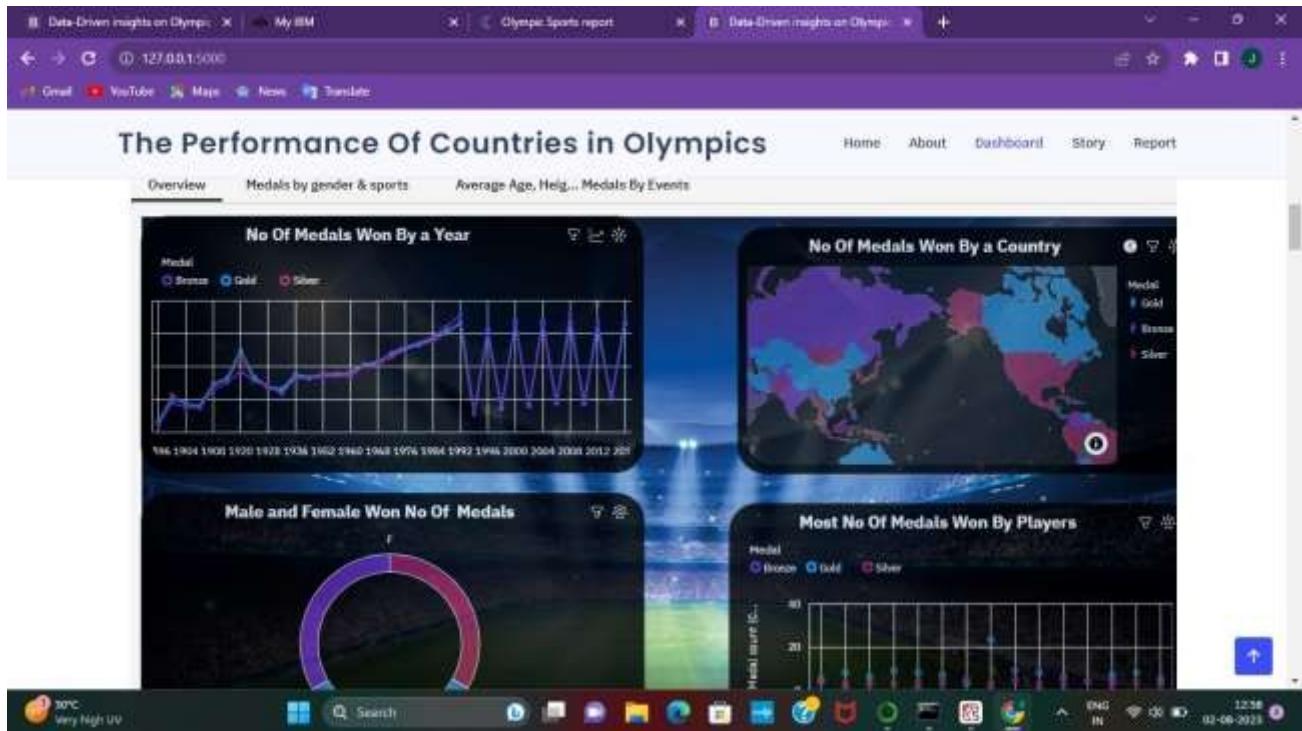
Thanks For The Insights

Battery saver
Your battery is low.
You should plug in your device.

27°C Partly cloudy Search ENG IN 02:32 PM 01-08-2023

This screenshot shows the same dashboard as the first one, but with a large yellow smiley face icon overlaid on the left side of the main visualization area. The overall layout and elements are identical to the first screenshot, including the medal charts, word cloud, and status messages at the bottom.

WEB INTEGRATION



The Performance Of Countries in Olympics

Home About Dashboard Story Report

Story

At the first Olympic Games in 1896, there were nine sports contested. Since that time many sports have been added (and removed too) from the program.
Only five sports have been contested at every summer Olympic Games since 1896: Athletics, cycling, Fencing, Gymnastics and Swimming.

In 2012 there were 26 Sports Contested, increasing to 28 in 2016, and 33 in 2020. The next Olympic Games in Paris 2024 are expected 32 sports with debut or breakdancing while karate, basketball & soft ball or dropped from the program.

Where Can We Uncover New Insights?

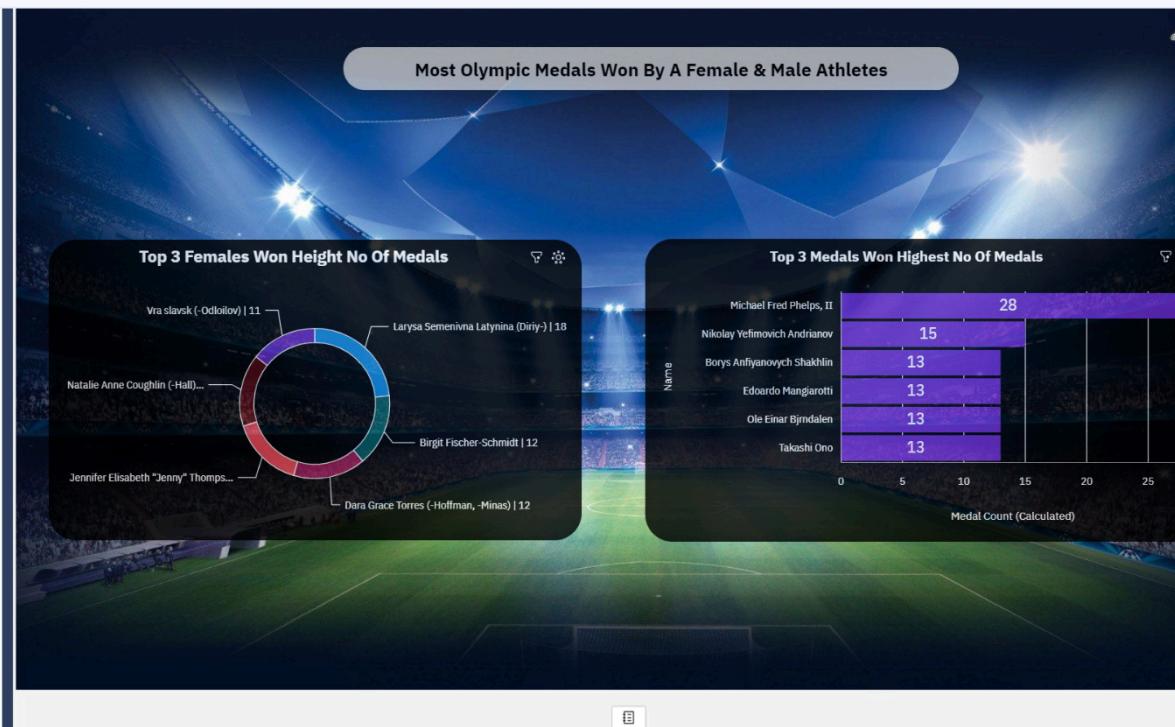
Most Olympic medals won by Male & Female Athletes

Countries with the most Olympic Medals Overall

What should We Do?

The Performance Of Countries in Olympics

[Home](#) [About](#) [Dashboard](#) [Story](#) [Report](#)



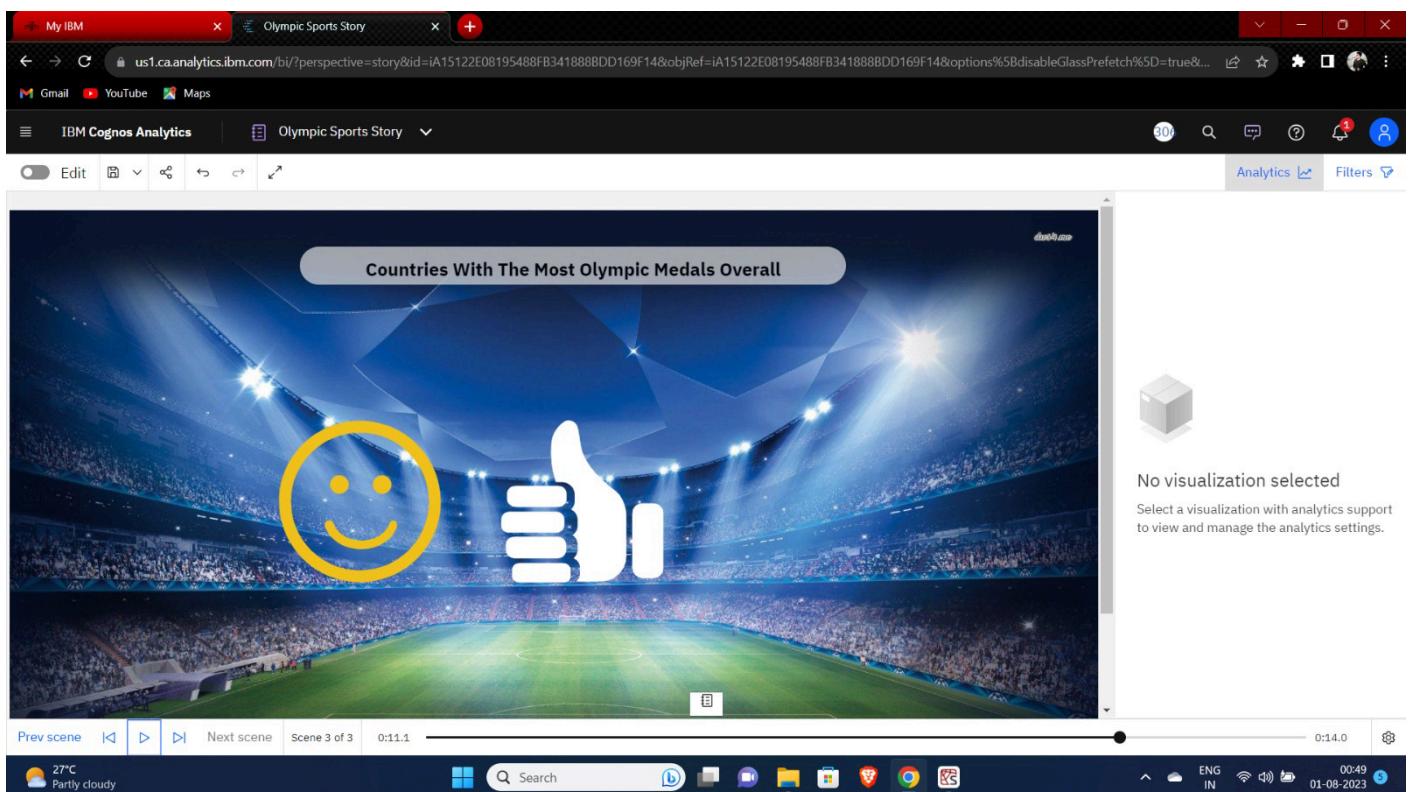
The Performance Of Countries in Olympics

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The Performance Of Countries in Olympics

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The Performance Of Countries in Olympics

Report

Olympic Sports Report

Gold Have Most No Of Medals Won In Olympics

Most No of Gold Medals Won By Team

United States

Top Events Event ticket

Search

13:01 IN 03-06-2023

The Performance Of Countries in Olympics

Home About Dashboard Story Report

13.3%

13.3%

13.3%

Most No Of Medals Count By Events

Football M...
Volley...
Swim...
Hockey M...
Water Polo...
Gymn...
Basketball...
Cycling M...

Gold...
Silver...
Bronze...



- **ADVANTAGES**

- Identifying Trends and Patterns
- Optimising Performance
- Talent Identification and Development
- Strategic Decision Making
- Resource Allocation
- Strategic Planning for Future Games

- **DISADVANTAGES**

- Data Bias and Inaccuracy
- Privacy and Ethical Concerns
- Lack of Contextual Understanding
- Data Complexity and Interpretation
- Focus on Short-Term Outcomes

7. APPLICATIONS

Data-driven insights on Olympic sports participation and performance have various applications that can positively impact athletes, sports organizations, governments, and the overall sports community.

- Athlete Training and Development
 - Talent Identification
- Strategic Planning for Sports Organizations
- Optimizing Resource Allocation
- Enhancing Sports Governance
- Performance Analysis and Benchmarking
- Improving Sports Infrastructure
- Promoting Inclusivity and Gender Equity
- Fan Engagement and Media Coverage
- Predictive Modeling for Future Games
- Injury Prevention and Sports Medicine
- Sports Marketing and Sponsorship

- CONCLUSION

In conclusion, data-driven insights on Olympic sports participation and performance have emerged as a powerful tool in the world of sports. As we move forward, data-driven insights will continue to play a pivotal role in shaping the future of Olympic sports. By embracing technological advancements,

maintaining ethical practices, and fostering a datadriven culture, we can unlock the full potential of data to empower athletes, inspire fans, and elevate the standard of excellence in Olympic sports worldwide. Ultimately, the integration of datadriven insights in sports will contribute to a more competitive, diverse, and successful Olympic Games for generations to come.

FUTURE SCOPE

The future scope of data-driven insights on Olympic sports participation and performance is vast and holds immense potential for transforming the landscape of sports.

Overall, the future of data-driven insights on Olympic sports participation and performance is exciting. By leveraging cutting-edge technologies and fostering a data-driven culture, we can unlock new possibilities for athlete development, sports management, and the overall advancement of Olympic sports on a global scale.

-:PROJECT REPORT:-