Data-Driven insight on Olympic sports participation and performance

NAANMUDHALVAN PROJECT REPORT

Submitted by,

TEAM LEAD	BATHALA PRAVEEN
TEAM MEMBER	ARUN R
TEAM MEMBER	AVULA VENKATA NANDAN
TEAM MEMBER	BATHALA PURUSHOTHAM

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

ARJUN COLLEGE OF TECHNOLOGY

COIMBATORE- 642 120

ANNA UNIVERSITY: CHENNAI 600 025

MAY 2023

7. **CODING & SOLUTIONING** (Explain the features added in the project along with code)

    7.1 Feature 1

8. PERFORMANCE TESTING

    8.1 Performance Metrics

9. RESULTS

    9.1 Output Screenshots

10. ADVANTAGES & DISADVANTAGES

11. CONCLUSION

12. FUTURE SCOPE

13. APPENDIX

    Source Code

    GitHub & Project Demo Link

1.INTRODUCTION

1.1Overview:

The modern Olympic Games or Olympics are leading international sporting events featuring summer and winter sports competitions in which thousands of athletes fromaround the world participate in a variety of competitions. The Olympic Games are considered the world's foremost sports competition with more than 200 nations participating. The Olympic Games are held every four years, with the Summer and Winter Games alternating by occurring every four years but two years apart.

Olympic Games are one of the main international events and also a matter ofprestige for countries and therefore each country tries to give their best performance duringthe event. An analysis needs to be done by each country to evaluate the previous statistics which will detect the mistakes which they have done previously and will also help them in future development. Visualization of the data over various factors will provide us with the statistical view of the various factors which lead to the evolution of the Olympic Games and Improvement in the performance of various Countries/Players.

1.2Purpose:

The purpose of this project is to analyse the large Olympic dataset using Exploratory Data Analysis to evaluate the evolution of the Olympic Games over the years. Ananalysis can also be done by the host country to find out the mistakes in the arrangements ofthe event which will help them in overcoming these mistakes and host the event accurately.This analysis will provide detailed and accurate information regarding various factors which lead to the evolution of the Olympic Games and the improvement of Countries/Players overtime in a visual format.

The Analysis will include the visualisation and explanation of the change intrends of the various factors over the years which will help to predict the information of futureOlympic Games. As the Olympic Games are one of the most important sporting events acrossthe world, each country and each player tries to give their best performance in the event. Toimprove their performance, every country should perform such an Analysis which would helpthem in the improvement of their policies and strategies by providing current statistics to them.

2.LITERATURE SURVEY:

A literature survey for Olympic sports involves reviewing academic articles, books, and other sources related to the history, governance, economics, athlete development, social and cultural impact, and technology and innovation in Olympic sports. The survey can provide a comprehensive understanding of the significance, challenges, and opportunities associated with Olympic sports.

2.1 Existing Problem:

Lack of analysis of Olympic sports can result in limited information about previous statistics which will detect the mistakes which they have done previously and will also effects for future development. And also lack of insights which results in statistical viewof various factors to improves the performance of players. Doing data analysis will solve thisproblem.

2.2 References

Data analysis is the solution for analysis of Olympic sports. There has been a lot of analysis on the Olympic Games like statistics visualisation, performance analysis of players, improvement in the performance of various countries, and many more. To accomplish this, we have to complete all the activities listed below,

- Data Collection & Extraction from Database

  Here, we collect dataset, Storing Data in DB2 & Perform SQL Operations and connect DB2 with Cognos.

- Data preparation

  Here, we prepare data module for visualizations. 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 toidentify patterns and trends, filtering the data to focus on specific subsets of data.

- Data visualization

  Data visualization is the process of creating graphical representations of data inorder to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible.

- Creating Dashboard, Report and Story

  A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. A data story is a way of presenting dataand analysis in a narrative format, with the goal of making the information more engaging and easier to understand. Report in data analytics typically involves analysingand interpreting data to draw insights.

2.3 Problem Statement Definition

Certainly, here's a problem statement for your project on data-driven insight into Olympic sports participation and performance:

"Despite the immense popularity and historical significance of the Olympic Games, there is a need for a comprehensive analysis of sports participation and performance that leverages data-driven insights. The goal of this project is to explore, analyze, and draw meaningful conclusions from the vast amount of data available on Olympic sports, athletes, and their performance. By examining historical trends, identifying factors that influence athlete success, and understanding the dynamics of sports participation, this project aims to provide valuable insights for athletes, coaches, sports organizations, and policymakers. The project will utilize a wide range of data sources, including athlete profiles, competition results, demographics, and training regimens, to address critical questions such as: Which sports are gaining or losing popularity over time? What factors contribute to the success of athletes in specific sports? How do factors like age, gender, and nationality impact participation and performance? Ultimately, this data-driven approach will not only enhance our understanding of the Olympic Games but also offer actionable insights for optimizing athlete training and promoting inclusivity and diversity in sports."

3. IDEATION & PROPOSED SOLUTION

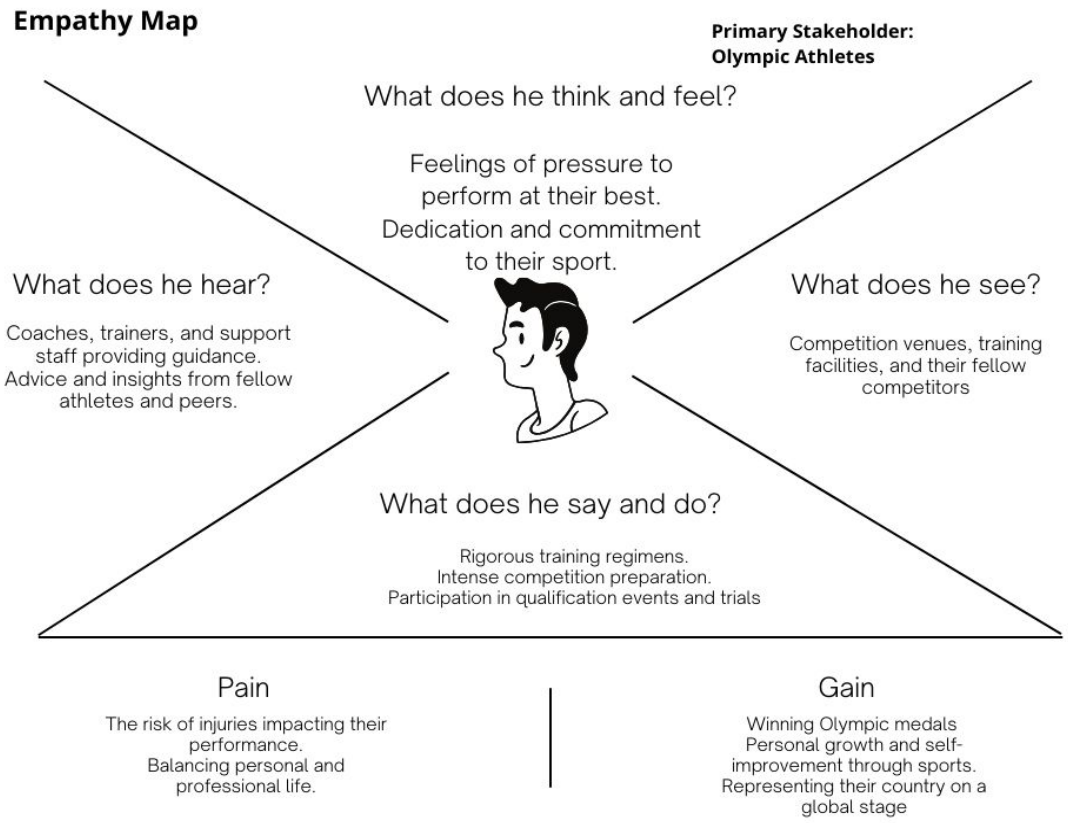
3.1Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's Behaviours and attitudes.

Reference:

https://www.canva.com/design/DAFyRPulKc/INLkXk1WlKCSp_cWfX4Ocw/edit?utm_content=DAFyRPu-lKc&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Example:



3.2 Brainstorm & Idea Prioritization Template:

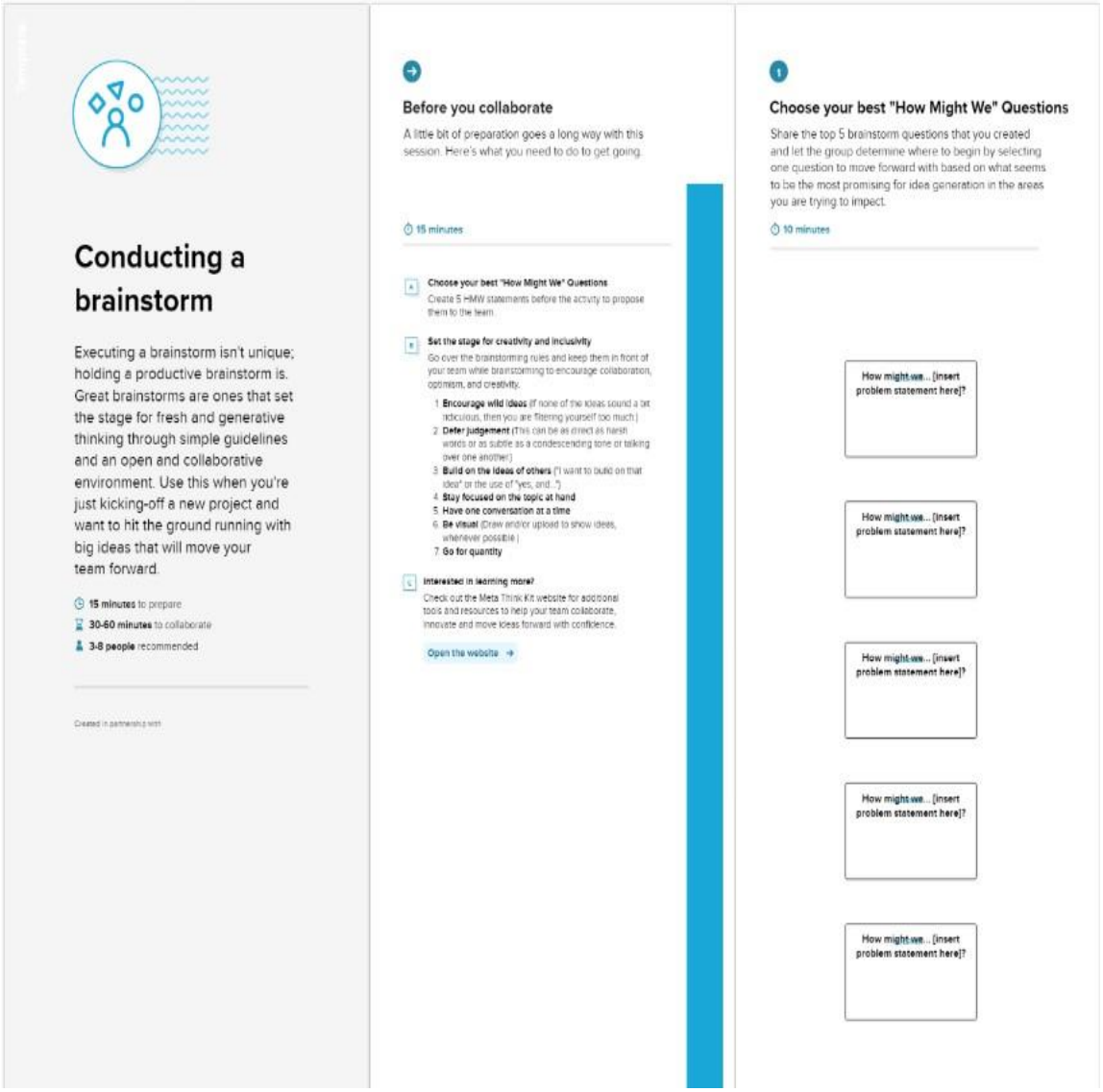
Brainstorming provides a free and open environment that encourages everyone within a teamto participate the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants areencouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference:

https://app.mural.co/t/bathalapraveen2478/m/bathalapraveen2478/1698240225856/c543f612dffbc6ed79ff6d9c0c760745bd7d4ca4?sender=uae07362c0cb68d32f91b7784

Step-1: Team Gathering, Collaboration and Select the Problem Statement



Conducting a brainstorm

Executing a brainstorm isn't unique; holding a productive brainstorm is. Great brainstorms are ones that set the stage for fresh and generative thinking through simple guidelines and an open and collaborative environment. Use this when you're just kicking-off a new project and want to hit the ground running with big ideas that will move your team forward.

15 minutes to prepare
30-60 minutes to collaborate
3-8 people recommended

Created in partnership with

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

15 minutes

Choose your best "How Might We" Questions
Create 5 HMW statements before the activity to propose them to the team.

Set the stage for creativity and inclusivity
Go over the brainstorming rules and keep them in front of your team while brainstorming to encourage collaboration, optimism, and creativity.

1. **Encourage wild ideas** (If none of the ideas sound a bit ridiculous, then you are filtering yourself too much.)
2. **Defer judgement** (This can be as direct as harsh words or as subtle as a condescending tone or talking over one another.)
3. **Build on the ideas of others** ("I want to build on that idea" or the use of "yes, and...")
4. **Stay focused on the topic at hand**
5. **Have one conversation at a time**
6. **Be visual** (Draw and/or upload to show ideas, whenever possible.)
7. **Go for quantity**

Interested in learning more?
Check out the Meta Think Kit website for additional tools and resources to help your team collaborate, innovate and move ideas forward with confidence.

Open the website →

Choose your best "How Might We" Questions

Share the top 5 brainstorm questions that you created and let the group determine where to begin by selecting one question to move forward with based on what seems to be the most promising for idea generation in the areas you are trying to impact.

10 minutes

How might we... [insert problem statement here]?

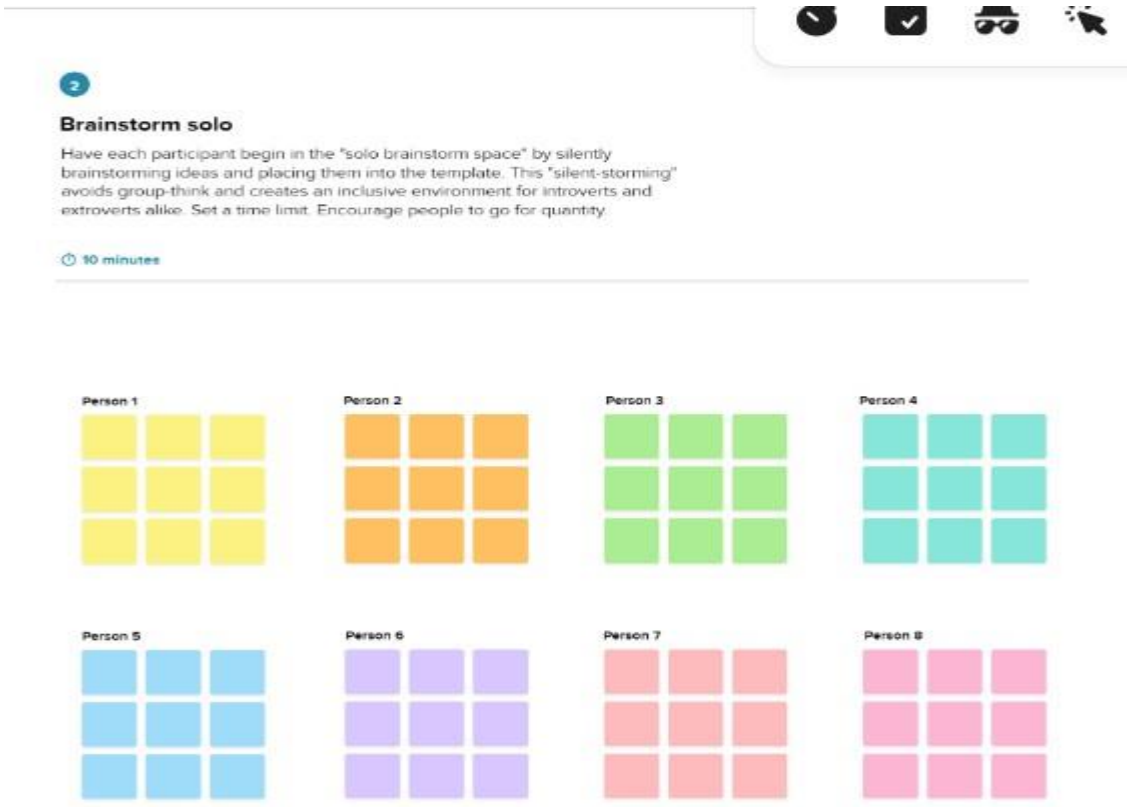
How might we... [insert problem statement here]?

How might we... [insert problem statement here]?

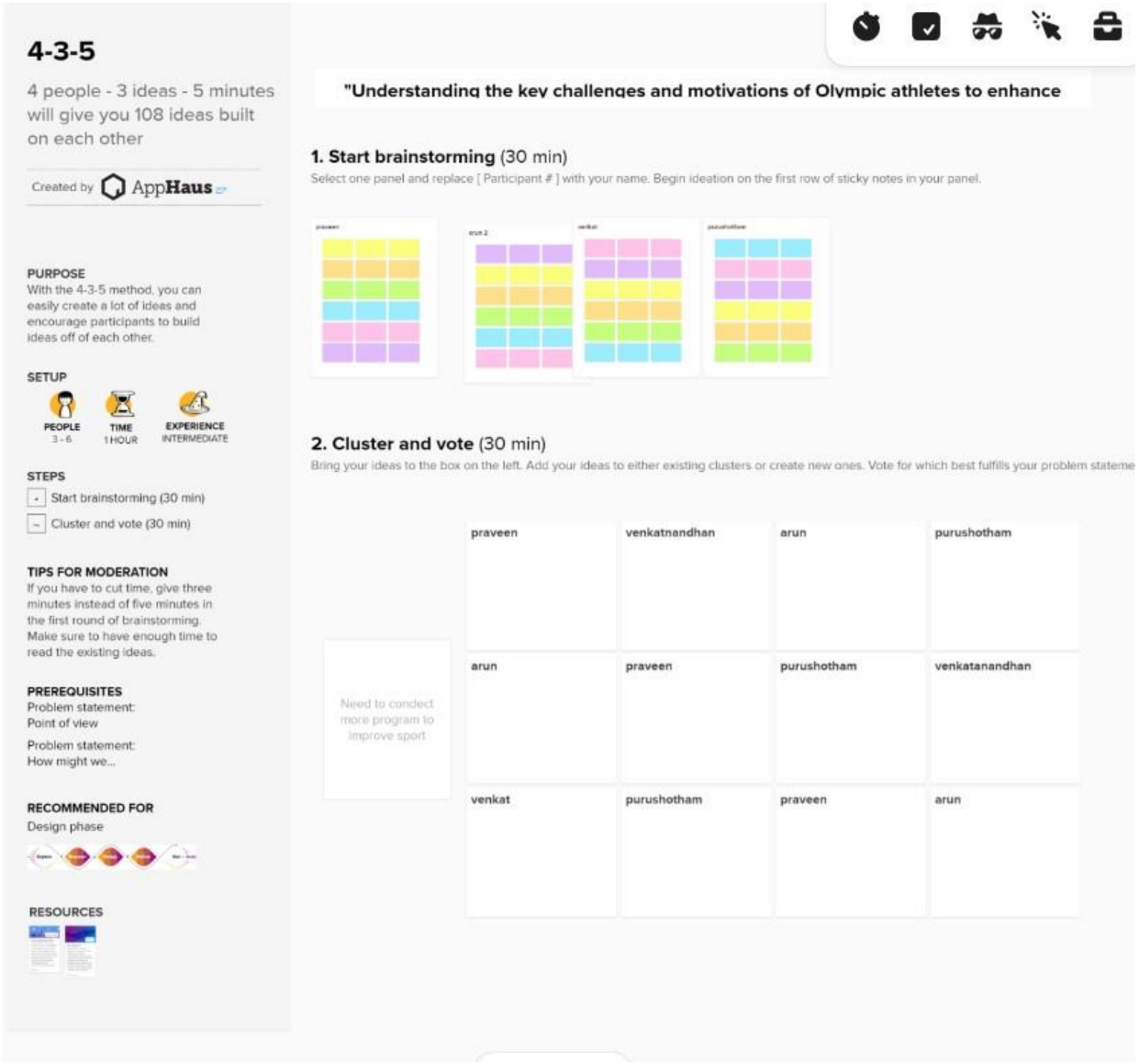
How might we... [insert problem statement here]?

How might we... [insert problem statement here]?

Step-2: Brainstorm, Idea Listing and Grouping



Step-3: Idea Prioritization



4.REQUIREMENT ANALYSIS

4.1 Functional requirement

Data Collection and Integration:

a. Gather and integrate data from various sources, including historical Olympic records, athlete profiles, competition results, demographic information, and training data.

b. Ensure data quality, consistency, and accuracy through data cleaning and validation processes.

2. Data Analysis and Visualization:

a. Perform exploratory data analysis to identify trends and patterns in Olympic sports participation.

b. Create data visualizations, including graphs, charts, and heatmaps, to present the findings effectively.

c. Utilize statistical techniques to analyze the relationships between various factors, such as age, gender, nationality, and athlete success.

3. User Interface:

a. Develop a user-friendly web-based or desktop application to allow users to interact with the data and access insights.

b. Provide search and filter capabilities for users to explore specific sports, athletes, or time periods.

c. Include interactive data visualization tools that allow users to customize and generate their charts and reports.

4. Athlete Profiling:

a. Create athlete profiles that include biographical information, event participation, and performance history.

b. Enable users to search for specific athletes and retrieve detailed profiles.

5. Sports and Event Analytics:

a. Analyze sports popularity trends over time and provide insights into the factors influencing their growth or decline.

b. Evaluate the performance of athletes and nations in specific sports and events.

c. Compare historical and current data to identify changes in athlete performance.

6. Factors Impacting Success:

a. Identify and analyze factors that influence athlete success, such as age, training duration, nationality, and gender.

b. Generate reports and visualizations illustrating the impact of these factors.

7. Prediction Models (Optional):

a. Develop predictive models to forecast athlete performance or sports popularity trends based on historical data.

b. Assess the accuracy and reliability of these models.

8. Export and Sharing:

a. Allow users to export data, reports, and visualizations in various formats (e.g., CSV, PDF, images) for further analysis or sharing.

b. Implement sharing features to enable users to share specific insights or reports with others.

9. Security and Privacy:

a. Ensure data privacy and security by implementing appropriate access controls and data encryption.

b. Comply with data protection regulations and best practices.

10. Performance Optimization:

a. Optimize the system's performance to handle large datasets and complex queries efficiently.

b. Implement caching mechanisms for frequently accessed data.

11. Documentation:

a. Provide comprehensive documentation for users, including data sources, methodologies, and how to interpret the insights generated.

12. Scalability:

a. Design the system to be scalable, allowing for the addition of new Olympic data in the future.

These functional requirements should help guide the development of your data-driven Olympic sports participation and performance analysis project. Adjust and expand upon them based on the specific goals and scope of your project.

4.2 Non-Functional requirements

1. Performance:

a. The system should provide responsive user interactions, with minimal latency in loading data and generating insights.

b. It should be capable of handling large datasets and complex queries efficiently, even during peak usage times.

2. Scalability:

a. The project should be designed to scale horizontally to accommodate increased data volume and user load over time.

b. It should support concurrent access by multiple users without performance degradation.

3. Reliability:

a. The system should be highly available, with minimal downtime for maintenance and updates.

b. It should include automated backups and disaster recovery procedures to ensure data integrity.

4. Security:

a. Data privacy and confidentiality should be maintained, and user access should be controlled through authentication and authorization mechanisms.

b. The project should follow best practices for secure data storage and transfer, including encryption and protection against common security threats.

5. Usability:

a. The user interface should be intuitive and user-friendly, ensuring that users can easily access and understand the data and insights provided.

b. Accessibility features should be implemented to accommodate users with disabilities.

6. Compatibility:

a. The application should be compatible with various web browsers, devices, and operating systems to ensure a broad user base.

b. It should support multiple languages or localization for a diverse user audience.

7. Maintainability:

a. The codebase and infrastructure should be well-documented to facilitate future maintenance and updates.

b. Changes and updates should be easy to implement without causing disruptions to the user experience.

8. Compliance:

a. The project should adhere to relevant data protection and privacy regulations, such as GDPR or HIPAA, depending on the data being processed.

b. It should comply with best practices for data ethics and transparency.

9. Performance Monitoring and Analytics:

a. Implement monitoring and analytics tools to track system performance and user interactions.

b. Use these metrics to continuously improve the system and user experience.

10. Cost Efficiency:

a. Ensure that the project is cost-effective in terms of infrastructure and maintenance.

b. Consider optimizing resource usage to minimize operational costs.

11. Data Integrity:

a. Data should be stored securely and should not be subject to corruption, loss, or unauthorized alterations.

b. Implement data validation and error-checking mechanisms to maintain data integrity.

12. Backup and Recovery:

a. Regularly back up data and implement disaster recovery procedures to ensure that data can be restored in case of unexpected events.

13. Response Time:

a. Define acceptable response times for different types of queries and ensure that the system meets these performance expectations.

14. Support and Training:

a. Provide user support and training resources to assist users in navigating and utilizing the system effectively.

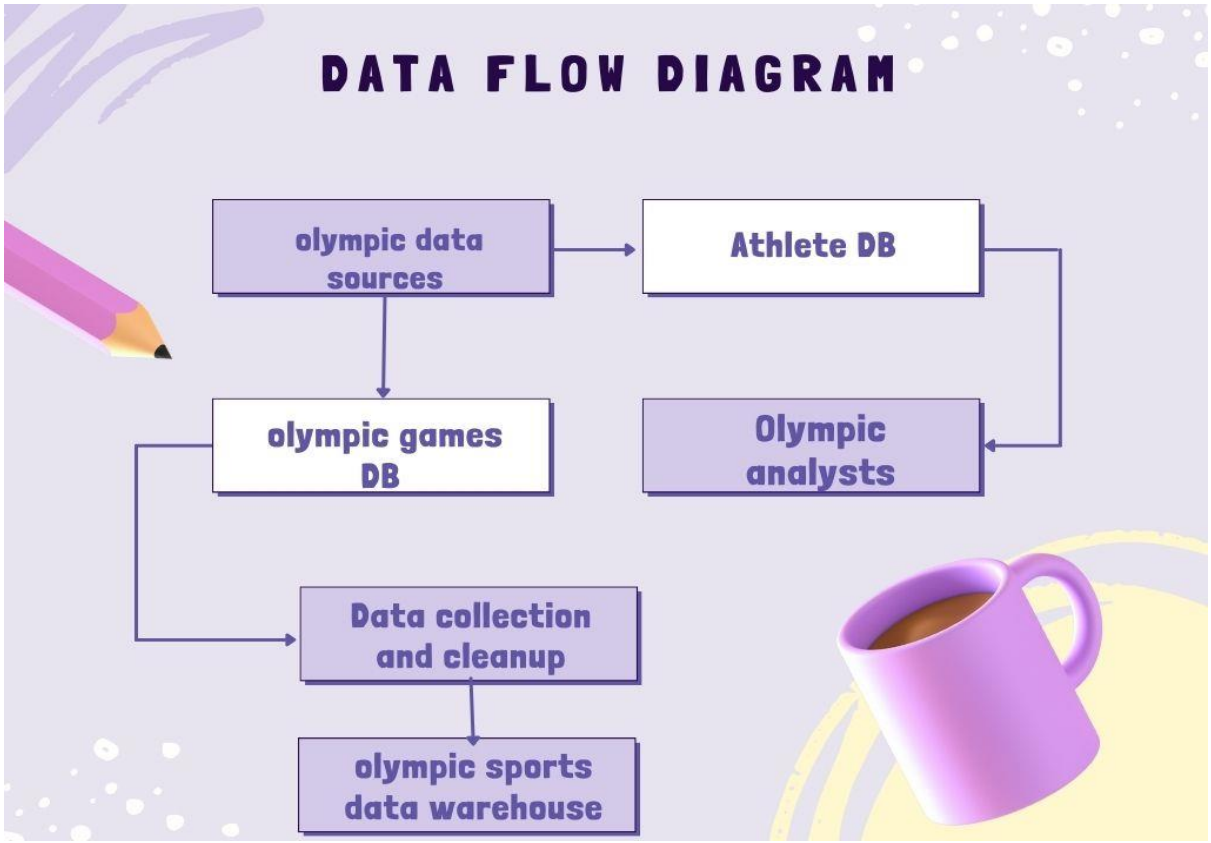
15. Regulatory Compliance:

a. Ensure that the project complies with all relevant regulations and standards, especially when handling sensitive or personal data.

5 PROJECT DESIGN

5.1 Data Flow Diagrams & User Stories

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the rightamount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored



References:

https://www.canva.com/design/DAFy15aLDDo/UczyX6Ro6iPmm9LPpUEBLA/edit?utm_content=DAFy15aLDDo&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1

		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application byentering email & password		High	Sprint-1
	Dashboard					
Customer (Webuser)	Venkatanandan	USN-6	He Need to the Olympic sports data in the particular sport	I can access my account/through login	High	Sprint-1
Customer Care Executive	Praveen	USN-7	He will attend the customer call/message/mail /and respond to customer	I can receive the customer mail/call	High	Sprint-2
Administrator	Arun	USN-8	As a administrator he	I can login with my	Medium	Sprint-1

			will responsible for all other activities	administrative id		

5.2 Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridgest gap between business problems and technology solutions. Its goals are to: Find the best tech solution to solve existing business problems.

- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed,and delivered.

Example - Solution Architecture Diagram:

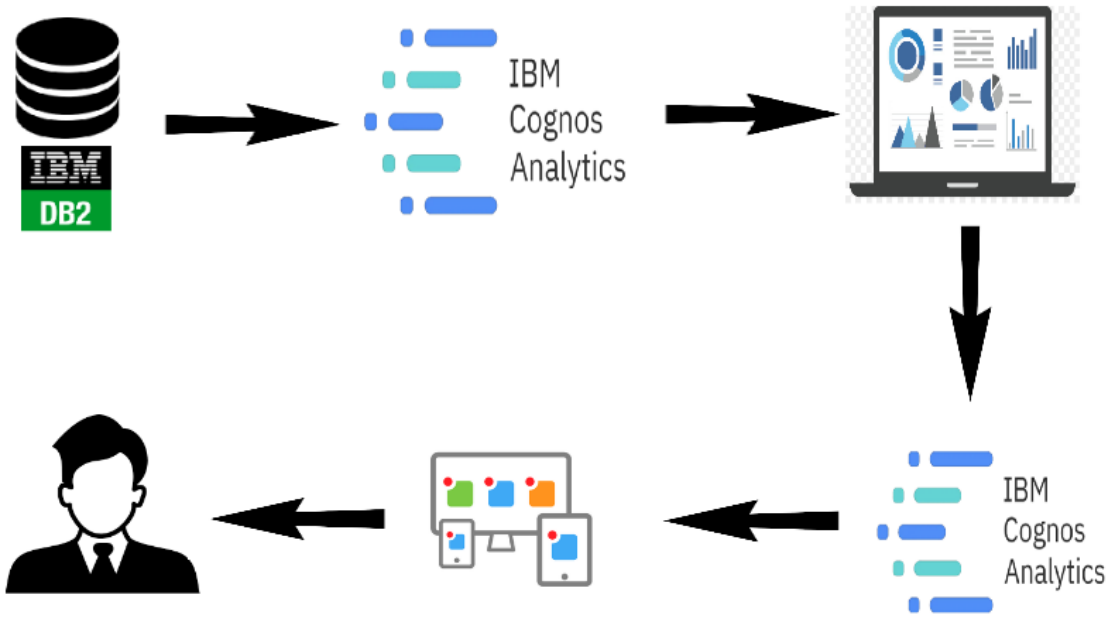
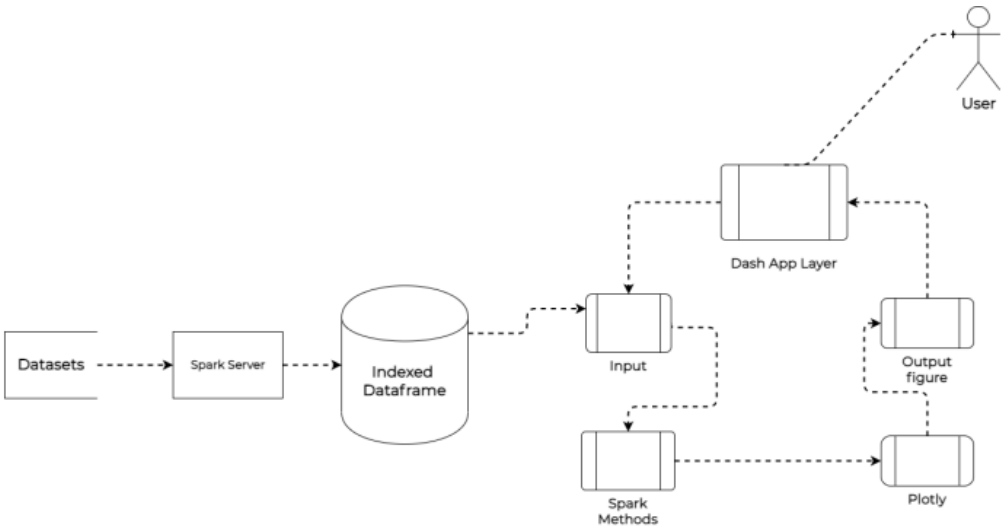


Figure 1: Architecture and data flow of the voice of Data-Driven insight on Olympic sports participation and performance

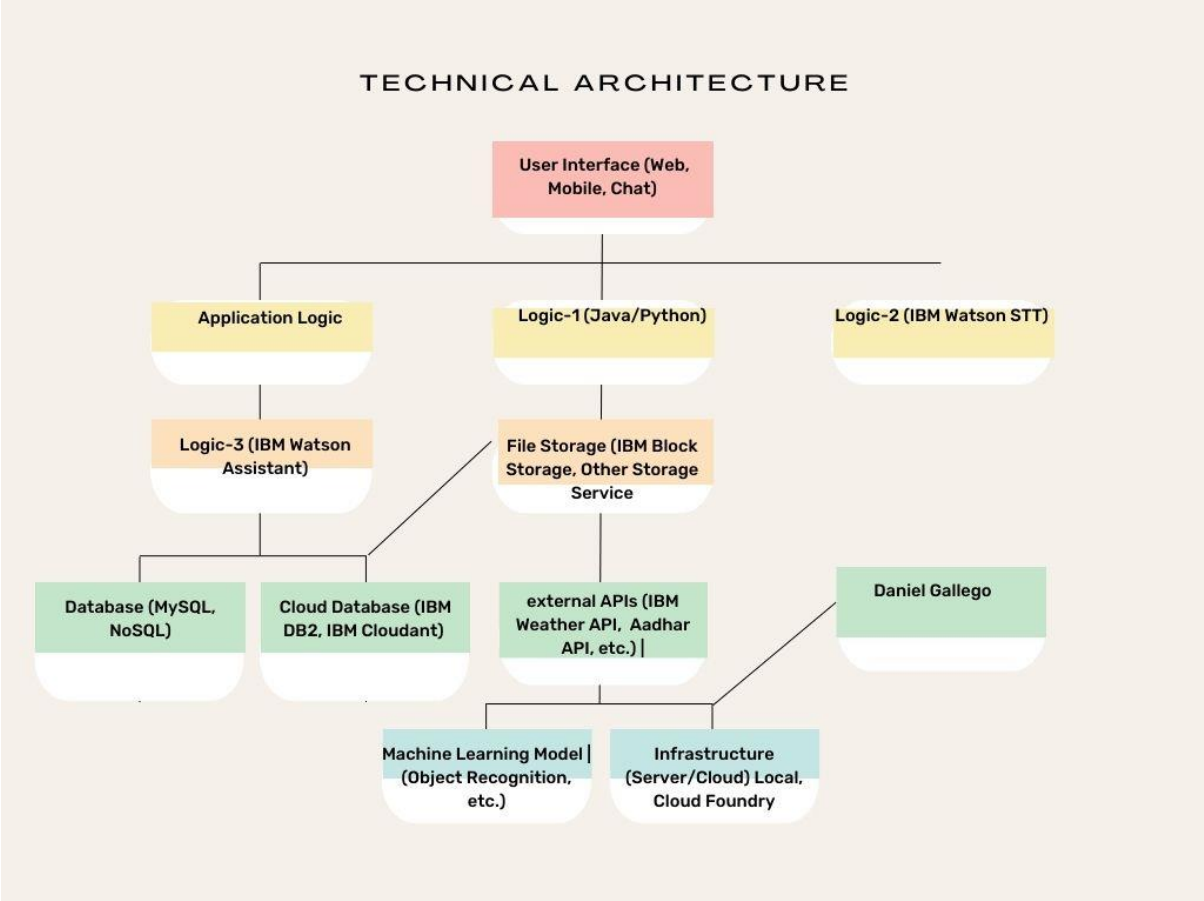


Reference:

https://www.irjmets.com/uploadedfiles/paper/issue_6_june_2022/25662/final/fin_irjmets1654853564.pdf

6.PROJECT PLANNING & SCHEDULING

6.1Technical Architecture



Reference:

https://www.canva.com/design/DAFy8Wbr8vo/5Cp9st7ZJDkO2oFYAHcIEw/edit?utm_content=DAFy8Wbr8vo&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js /React Js etc.

2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security	List all the security / access	e.g. SHA-256, Encryptions,

	Implementations	controls implemented,use of firewalls etc.	IAMControls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

6.2 Sprint Planning & Estimation

Sprint planning and estimation are critical aspects of Agile project management, particularly in Scrum, a popular Agile framework. Sprint planning involves selecting a set of features or user stories to work on in the upcoming sprint, while estimation helps the team understand the effort required for each of these items. Here's an overview of both processes:

Sprint Planning:

Sprint planning is a collaborative process involving the entire Scrum team (Product Owner, Scrum Master, and Development Team). The primary goal is to determine what work can be accomplished in the next sprint.

1. Backlog Refinement: Before the sprint planning meeting, the Product Owner should have a well-groomed product backlog. This means that the backlog contains prioritized user stories or features with clear descriptions and acceptance criteria.

2. Sprint Goal: The Product Owner presents the sprint goal, which is the overarching objective for the upcoming sprint. It provides context and helps the team understand the purpose of the sprint.

3. Selecting Work: The Development Team reviews the prioritized backlog items and, with input from the Product Owner and Scrum Master, selects the items they believe can be completed within the sprint.

4. Task Breakdown: Once the user stories or features are selected, the team may break them down into smaller tasks to understand the work better. This task breakdown helps in estimating and planning.

5. Estimation: Estimation helps the team understand the complexity and effort required for each selected item. Common estimation techniques include Story Points, Ideal Days, or T-shirt sizing.

6. Capacity Planning: The team considers its capacity (the number of hours or Story Points it can work on during the sprint) and ensures it does not overcommit. This can be based on historical velocity, team members' availability, and other factors.

7. Commitment: The team commits to completing the selected work during the sprint. This commitment is essential and ensures that the team focuses on delivering value and meets its sprint goal.

Estimation:

Estimation is the process of assigning relative values to user stories or tasks to understand the effort required. There are several estimation techniques, including:

1. Story Points: A relative measurement of the complexity and effort required for a user story. Common scales are the Fibonacci sequence (1, 2, 3, 5, 8, 13, ...) or a custom scale.

2. Ideal Days: Estimating in ideal days represents the number of days it would take to complete a task under ideal conditions. This is less common in Scrum.

3. T-shirt Sizing: This technique uses sizes like Small, Medium, Large to estimate the relative effort.

4. Planning Poker: Team members discuss and estimate tasks using a deck of cards with values. This technique encourages discussions and helps achieve a consensus estimate.

5. Relative Sizing: Comparing tasks to each other to determine their relative effort. For example, a task might be "twice as difficult" as another.

The purpose of estimation is not to provide an exact time prediction but to create a shared understanding within the team about the work's complexity and effort. It helps in making informed decisions during sprint planning and managing expectations.

In both sprint planning and estimation, the emphasis is on collaboration, transparency, and adaptability. These processes are iterative, and the team should continuously refine and improve their practices based on feedback and experience.

6.3 Sprint Delivery Schedule

Sprint Delivery Schedule is a timeline that outlines when the work committed to during a sprint will be delivered. In Scrum and other Agile frameworks, sprints typically have fixed durations, commonly two to four weeks. Therefore, the Sprint Delivery Schedule is typically a reflection of the sprint duration and its associated milestones. Here's what it involves:

1. Sprint Duration: The Sprint Delivery Schedule starts by defining the sprint's duration. Sprints are time-boxed, meaning they have a fixed length. For example, it could be a two-week sprint.

2. Sprint Start Date: The schedule should include the specific date when the sprint begins. This marks the start of the sprint, and the team commits to working on the selected user stories or tasks during this time.

3. Sprint End Date: The schedule should also specify the end date of the sprint. This is the point when the work within the sprint should be completed, and the potentially shippable product increment (the increment of work done during the sprint) is ready for review.

4. Daily Standup Meetings: While not part of the formal Sprint Delivery Schedule, it's important to note that during the sprint, there are daily standup meetings where the team discusses progress, obstacles, and adjustments to the plan. These meetings ensure that the work is on track for timely delivery.

5. Sprint Goals and Backlog Items: The schedule should clearly list the sprint goals and the specific user stories or backlog items that the team has committed to delivering during the sprint.

6. Review and Demo Date: At the end of the sprint, typically on the last day or shortly after it, there is a Sprint Review and Demo meeting. The schedule should include the date and time for this meeting when the team presents the work completed during the sprint to stakeholders.

7. Retrospective Date: After the Sprint Review, there is usually a Sprint Retrospective where the team reflects on the sprint and identifies improvements for the next one. The schedule should include the date and time for this meeting.

8. Release Date: If the sprint work contributes to a larger release, the schedule may include the release date when the product increment will be delivered to the customer or end-users.

9. Buffer and Contingency: Sometimes, a buffer or contingency period may be added to the schedule to accommodate unforeseen delays or unexpected issues that might arise during the sprint.

10. Dependencies: If there are any external dependencies that could affect the delivery schedule, these should be clearly outlined on the schedule so the team can be aware of potential risks.

The Sprint Delivery Schedule plays a crucial role in helping the team and stakeholders understand when they can expect specific features or functionality to be available. It provides a level of predictability and helps in managing expectations. However, it's important to remember that Agile practices also embrace change, and the schedule can be adjusted as needed during the sprint to respond to changing priorities or unforeseen issues.

7.CODING & SOLUTIONING

7.1Feature 1

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">
  <title>Olympic</title>
  <meta content="" name="description">
  <meta content="" name="keywords">
  <!-- Favicons -->
  <link href="static/img/favicon.png" rel="icon">
  <link href="static/img/apple-touch-icon.png" rel="apple-touch-icon">
  <!-- Google Fonts -->
  <link
     href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,7
     00,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,40
     0i,500,500i,600,600i,700,700i" rel="stylesheet">
  <!-- Vendor CSS Files -->
  <link href="static/vendor/aos/aos.css" rel="stylesheet">
  <link href="static/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="static/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
  <link href="static/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
  <link href="static/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
  <link href="static/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
  <!-- Template Main CSS File -->
  <link href="static/css/style.css" rel="stylesheet">
</head>
<body><!-- ======= Header ======= -->
  <header id="header" class="fixed-top  header-transparent ">
```

```
 <div class="container d-flex align-items-center justify-content-between">
 <div class="logo">
 <h1><a href="index.html"><img src="static/img/logo.png" width=130  alt="" class="img-fluid"></a></h1>
  </div>
<nav id="navbar" class="navbar"> <ul>
      <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
      <li><a class="nav-link scrollto" href="#gallery">Dashboard</a></li>
     <li><a class="nav-link scrollto" href="#testimonials">Report</a></li>
      <li><a class="nav-link scrollto" href="#contact">Story</a></li>
    </ul>
    <i class="bi bi-list mobile-nav-toggle"></i>
  </nav><!-- .navbar -->
</div>
 </header><!-- End Header -->
<!-- ======= Hero Section ======= -->
 <section id="hero" class="d-flex align-items-center">
<div class="container">
<div class="row">
<div class="col-lg-6 d-lg-flex flex-lg-column justify-content-center align-items-stretch pt-5 pt-lg-0 order-2 order-lg-1" data-aos="fade-up">
 <div>
 <h1>OLYMPIC SPORTS PERFORMANCE <br>ANALYSIS</br></h1>
 <p>The Olympic Games consist of various sports divided into summer,winter,and paralympic categories.Some of the sports included in the Olympics are athletics,swimming,gymnastics,cycling,basketball,volleyball,boxing,skiing,snowboarding,ice hockey,figure skating,curling,wheelchair basketball,para-athletics,para-cycling,para-swimming,and wheelchair tennis.Athletes from around the world compete in these sports to earn medals and represent their countries.</p>
 </div>
```

```
    </div>
    <div class="col-lg-6 d-lg-flex flex-lg-column align-items-stretch order-1 order-lg-2 hero-img" data-aos="fade-up">
      <img src="static/img/img1.png" class="img-fluid" alt="">
    </div>
  </div>
 </div>
</section><!-- End Hero -->
<main id="main">
 <!-- ======= Details Section ======= -->
 <section id="details" class="details">
  <div class="container">
   <div class="row content">
    <div class="col-md-4" data-aos="fade-right">
     <img src="static/img/img2.png" class="img-fluid" alt="">
    </div>
    <div class="col-md-8 pt-4" data-aos="fade-up">
     <h3>WELCOME TO OLYMPIC SPORTS ANALYSIS.</h3>
     <p class="fst-italic">The modern Olympic Games or Olympics are the leading international sporting events featuring summer and winter sports competitions in which thousands of athletes from around the world participate in a variety of competitions. The Olympic Games are considered the world's foremost sports competition with more than 200 teams, representing sovereign states and territories, participating.The Olympic Games are normally held every four years, and since 1994, have alternated between the Summer and Winter Olympics every two years during the four-year period.
     </p>
     <p>The Summer Olympics programme includes 26 sports, while the Winter Olympics programme features 15 sports.Athletics, swimming, fencing, and artistic gymnastics are the only summer sports that have never been absent from the Olympic programme. Cross-country skiing, figure skating, ice hockey, Nordic combined, ski jumping, and speed skating have been featured at every Winter Olympics.Over time the Olympics have become bigger. In old times, women were not allowed, but now there are women's
```

```
events.The Paralympic Games were created for athletes with physical disabilities. As well, the Olympics became bigger with the addition of the Youth Olympic Games for teenage athletes.The first, second, and third-place finishers in each event receive, respectively, gold, silver, and bronze medals.
      </p>
    </div>
  </div>
  <div class="row content">
    <div class="col-md-4 order-1 order-md-2" data-aos="fade-left">
      <img src="static/img/img3.png" class="img-fluid" alt="">
    </div>
    <div class="col-md-8 pt-5 order-2 order-md-1" data-aos="fade-up">
      <h3>FEW INSIGHTS FOR<br>OLYMPIC DATA ANALYSIS</br></h3>
    </div>
  </div>
    </div>
  </div>
</section><!-- End Details Section -->
<!-- ======= Gallery Section ======= -->
<section id="gallery" class="gallery">
  <div class="container" data-aos="fade-up">
    <div class="section-title">
      <h2>Dashboard</h2>
    <iframe
  src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2FOlympic%2Bdashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model000001896e24ecc5_00000002" width="650" height="500" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
    </div>
```

```
    </div>
  </section><!-- End Gallery Section -->
  <!-- ======= Testimonials Section ======= -->
  <section id="testimonials" class="testimonials section-bg">
    <div class="container" data-aos="fade-up">
     <div class="section-title">

       <h2>Report</h2>
   <iframe
    src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FOlympic%2BSports
    %2BReport&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navba
    r=false&amp;shareMode=embedded&amp;action=run&amp;format=HTML&amp;promp
    t=false" width="700" height="520" frameborder="0" gesture="media" allow="encrypted-
    media" allowfullscreen=""></iframe>
      </div>
    </div>

  </section><!-- End Testimonials Section -->
  <!-- ======= Contact Section ======= -->
  <section id="contact" class="contact">
    <div class="container" data-aos="fade-up">
      <div class="section-title">
        <h2>Story</h2>
<iframe
    src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%
    2FOlympic%2Bstory&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;
    ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model00
    000189743ea311_00000002&amp;sceneTime=0" width="800" height="550"
    frameborder="0" gesture="media" allow="encrypted-media"
    allowfullscreen=""></iframe>
      </div>
    </div>
  </section><!-- End Contact Section -->
```

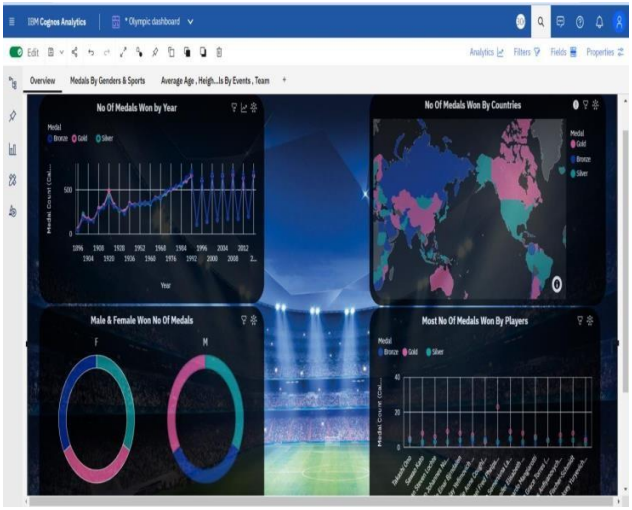
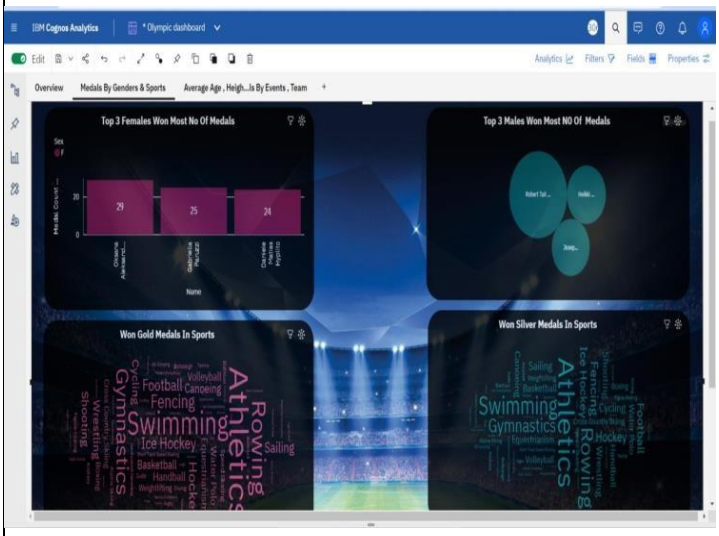
```
</main><!-- End #main -->
<!-- ======= Footer ======= -->
<footer id="footer">
  <div class="footer-newsletter">
    <div class="container">
      <div class="row justify-content-center">
        <div class="col-lg-6">
          <h4>Join Our Newsletter</h4>
          <form action="" method="post">
            <input type="email" name="email"><input type="submit" value="Subscribe">
          </form>
        </div>
      </div>
    </div>
  </div>
  <div class="footer-top">
    <div class="container">
      <div class="row">
        <div class="row justify-content-center">
         <div class="col-lg-3 col-md-6 footer-contact">
          <h3>Olympic</h3>
          <p>
           Andhra Pradesh, <br>
           India<br>
            <strong>Phone:</strong> +1 5589 55488 55<br>
            <strong>Email:</strong> info@example.com<br>
          </p>
        </div>
       <div class="col-lg-3 col-md-6 footer-links">
          <h4>ABOUT OLYMPIC</h4>
```

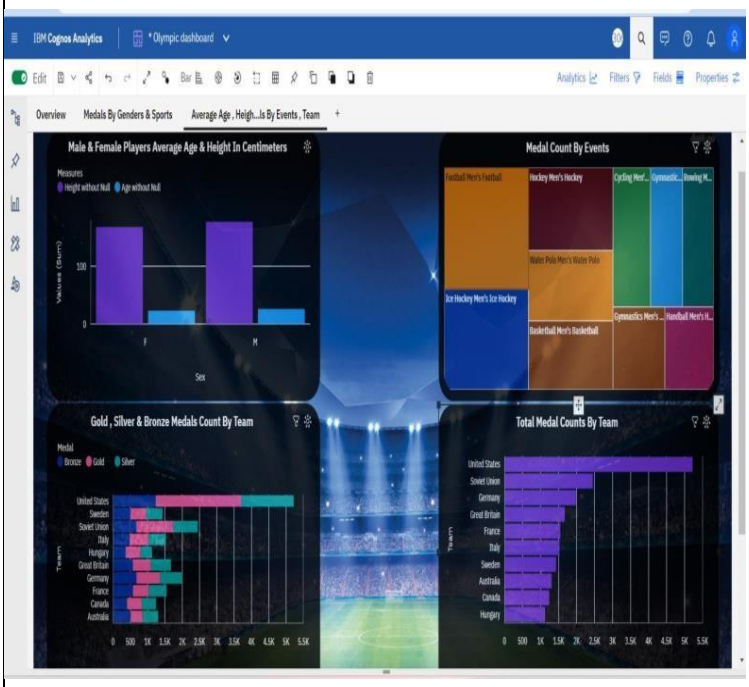
```
          <P>The Olympic Games consist of various<br> sports divided into
      summer,winter,and paralympic categories.</br></P>
        </div>
        <div class="col-lg-3 col-md-6 footer-links">
          <h4>Our Social Networks</h4>
          <div class="social-links mt-3">
            <a href="#" class="twitter"><i class="bx bxl-twitter"></i></a>
            <a href="#" class="facebook"><i class="bx bxl-facebook"></i></a>
            <a href="#" class="instagram"><i class="bx bxl-instagram"></i></a>
            <a href="#" class="google-plus"><i class="bx bxl-skype"></i></a>
            <a href="#" class="linkedin"><i class="bx bxl-linkedin"></i></a>
          </div>
        </div>
      </div>
    </div>
  </div>
  <div class="container py-4">
    <div class="copyright">
      &copy; Copyright <strong><span>2023</span></strong>. All Rights Reserved
    </div>
    <div class="credits">
      <!-- All the links in the footer should remain intact. -->
      <!-- You can delete the links only if you purchased the pro version. -->
      <!-- Licensing information: https://bootstrapmade.com/license/ -->
      <!-- Purchase the pro version with working PHP/AJAX contact form:
      https://bootstrapmade.com/free-bootstrap-app-landing-page-template/ -->
      Designed by <a class="fst-italic" href="https://bootstrapmade.com/">Sharon</a>
    </div>
  </div>
</footer><!-- End Footer -->
<a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i class="bi
```

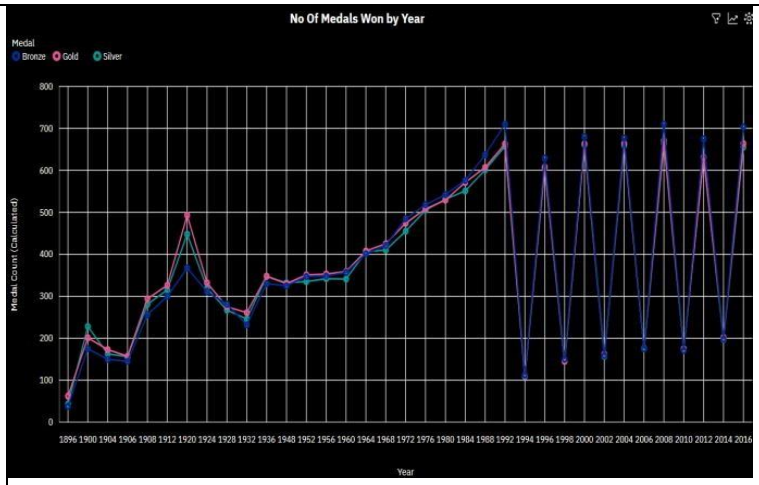
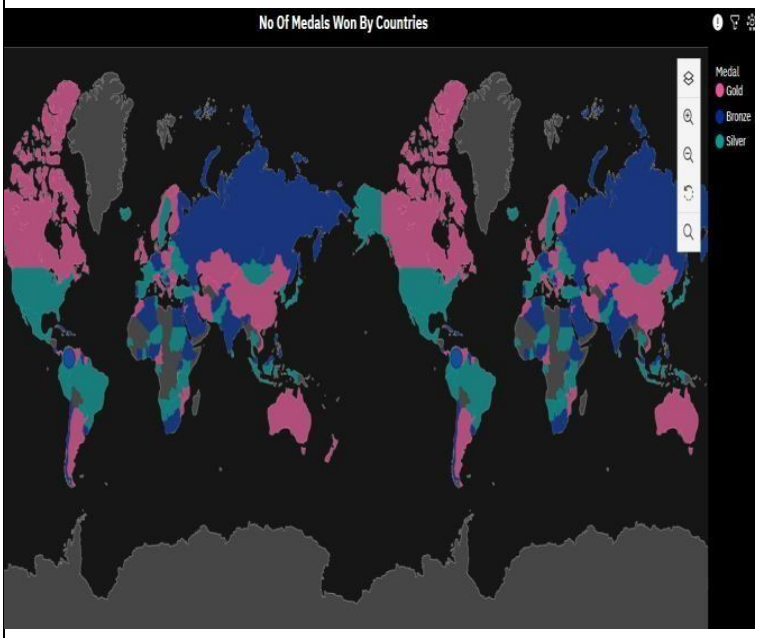
```
bi-arrow-up-short"></i></a>
  <!-- Vendor JS Files -->
  <script src="static/vendor/aos/aos.js"></script>
  <script src="static/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="static/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="static/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="static/vendor/php-email-form/validate.js"></script>
  <!-- Template Main JS File -->
  <script src="static/js/main.js"></script>
</body>
      </html>
```

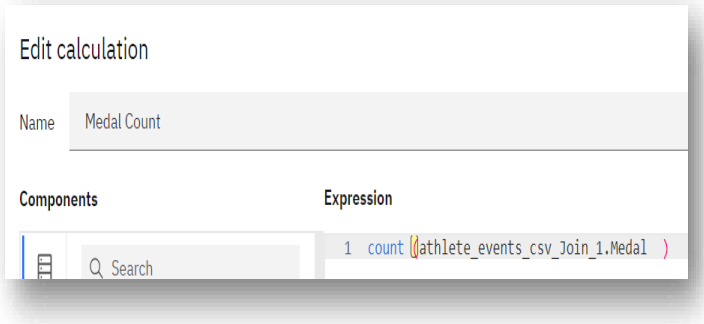
8.PERFORMANCE TESTING

8.1Performance Metrics

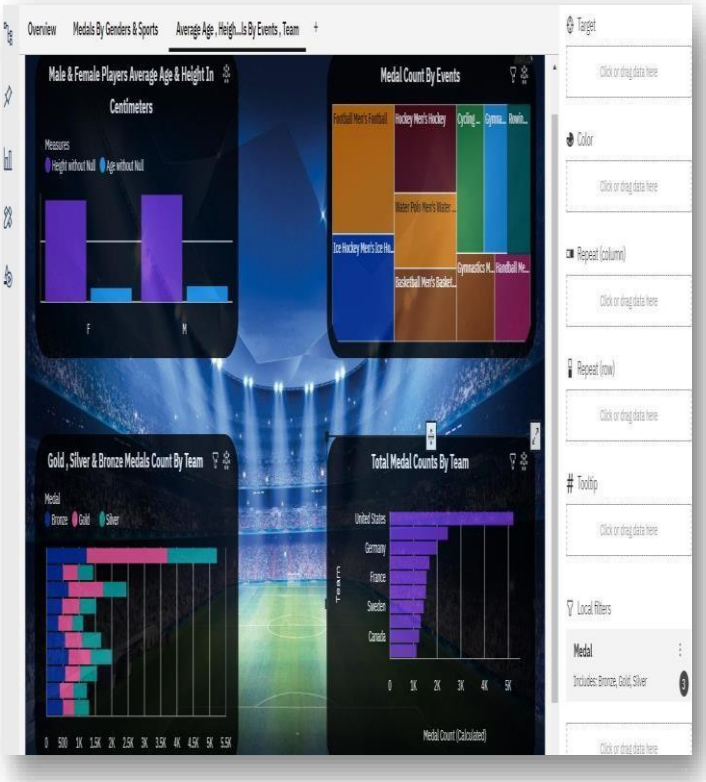
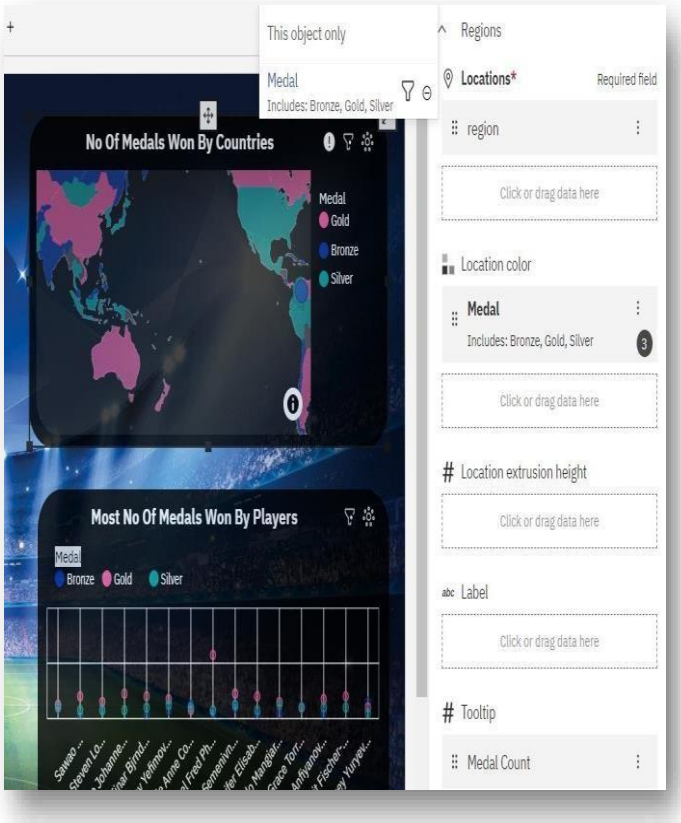
S.No	Parameter	Screenshot / Values
1.	Dashboard design	 

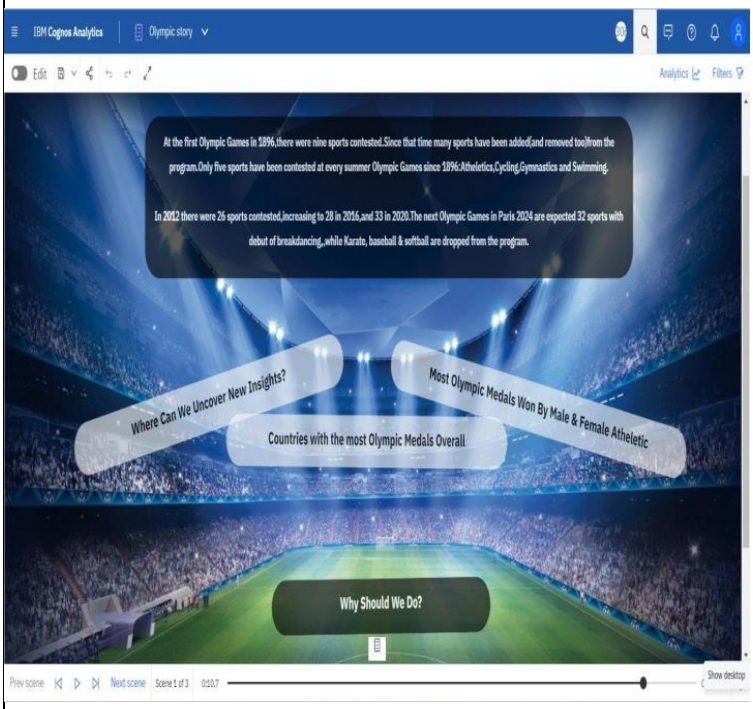
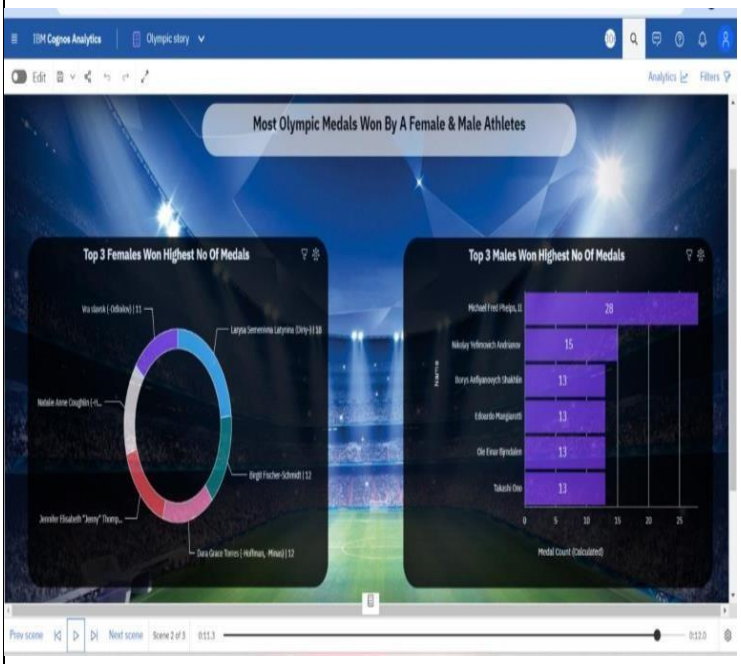
		 IBM Cognos Analytics *Olympic dashboard Edit Analytics Filters Fields Properties Overview Medals By Genders & Sports Average Age , Heigh...ls By Events , Team Male & Female Players Average Age & Height In Centimeters Measures Height without Null Age without Null Values (Sum) 100 0 F M Sex Medal Count By Events Football Men's Football Hockey Men's Hockey Water Polo Men's Water Polo Ice Hockey Men's Ice Hockey Basketball Men's Basketball Gold , Silver & Bronze Medals Count By Team Medal Bronze Gold Silver Team United States Sweden Soviet Union Italy Hungary Great Britain Germany France Canada Australia 0 500 1K 1.5K 2K 2.5K 3K 3.5K 4K 4.5K 5K 5.5K Total Medal Counts By Team Team United States Soviet Union Germany Great Britain France Italy Sweden Australia Canada Hungary 0 500 1K 1.5K 2K 2.5K 3K 3.5K 4K 4.5K 5K 5.5K

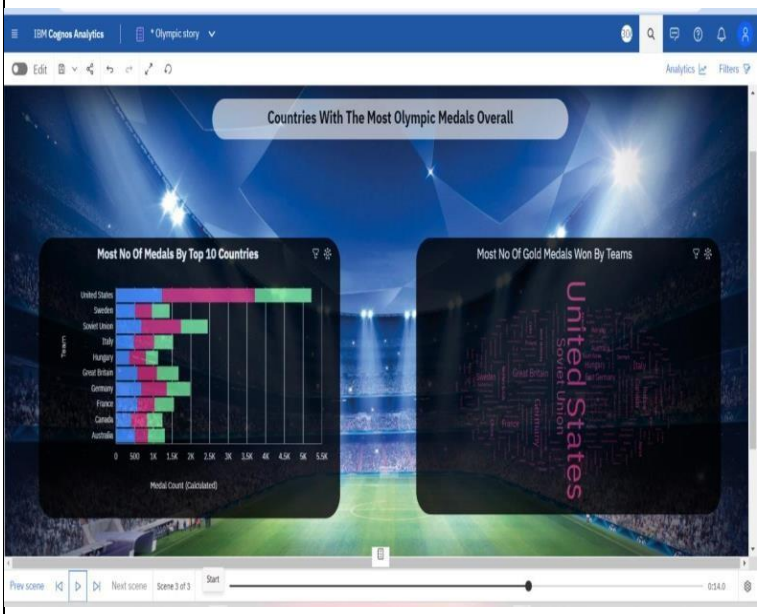
2.	Data Responsiveness	 

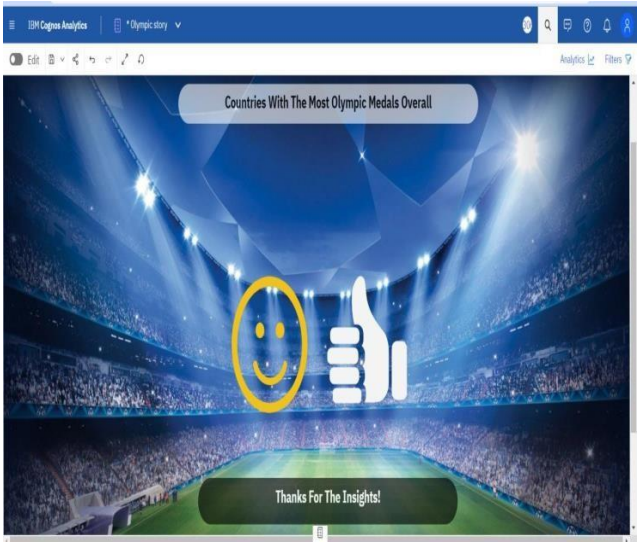
3.	Amount Data to Rendered (DB2 Metrics)	  

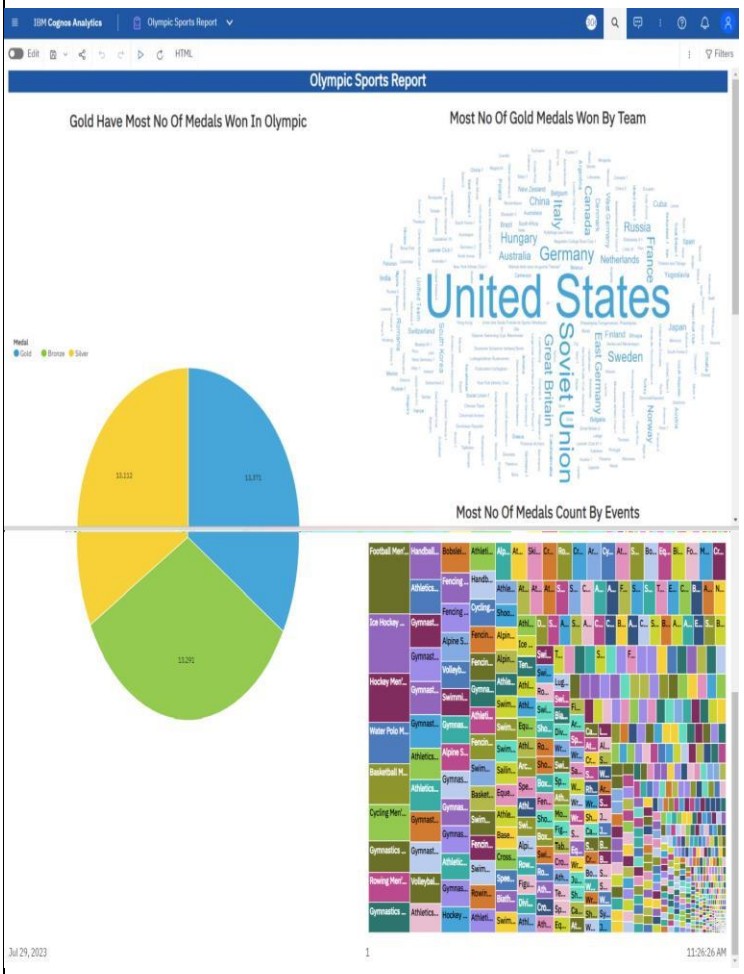
		 Edit calculation Name Height without Null Components Expression Search 1 IF (Height='NA') THEN (average (Height)) ELSE (Height)

4.	Utilization of Data Filters	 

5.	Effective User Story	 

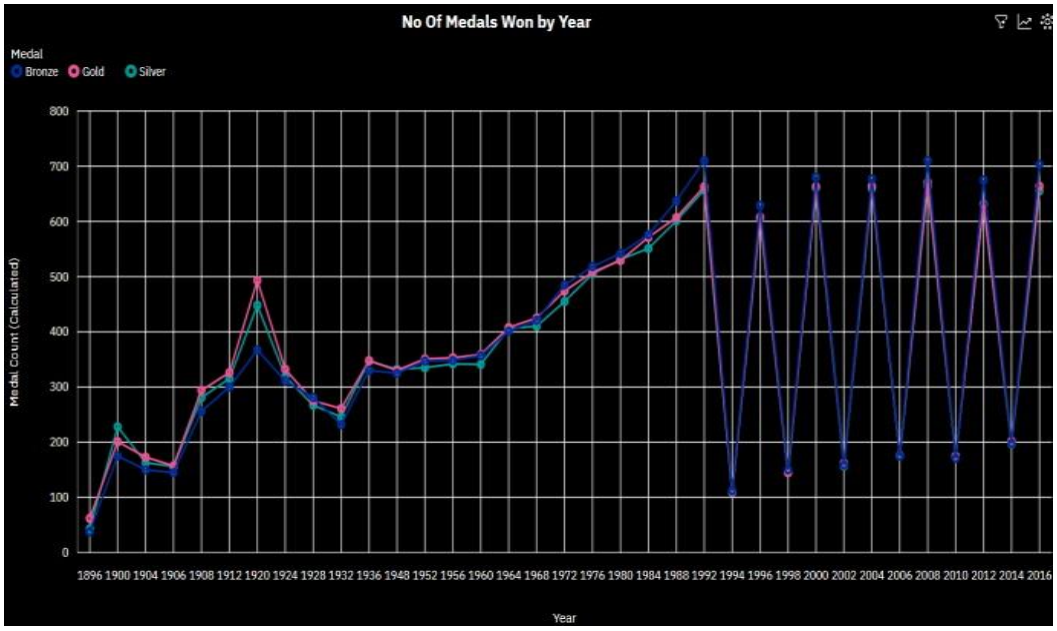

IBM Cognos Analytics
* Olympic story
Edit
Analytics
Filters
Countries With The Most Olympic Medals Overall
Most No Of Medals By Top 10 Countries
United States
Sweden
Soviet Union
Italy
Hungary
Great Britain
Germany
France
Canada
Australia
Team
0
500
1K
1.5K
2K
2.5K
3K
3.5K
4K
4.5K
5K
5.5K
Medal Count (Calculated)
Most No Of Gold Medals Won By Teams
United States
Soviet Union
Prev scene
Next scene
Scene 3 of 3
Start
0:14.0

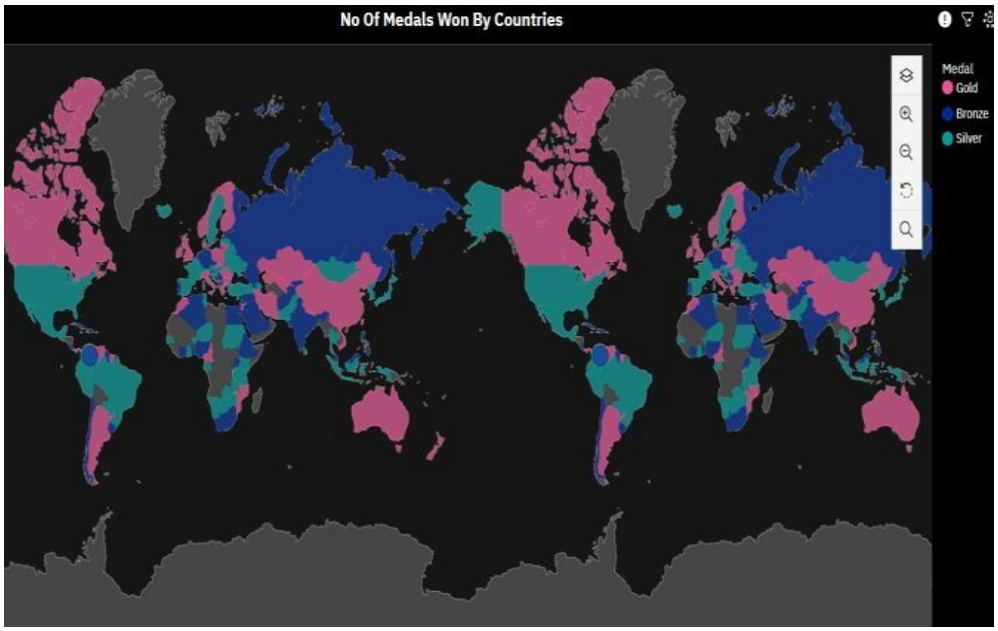

IBM Cognos Analytics
* Olympic story
Edit
Analytics
Filters
Countries With The Most Olympic Medals Overall
Thanks For The Insights!

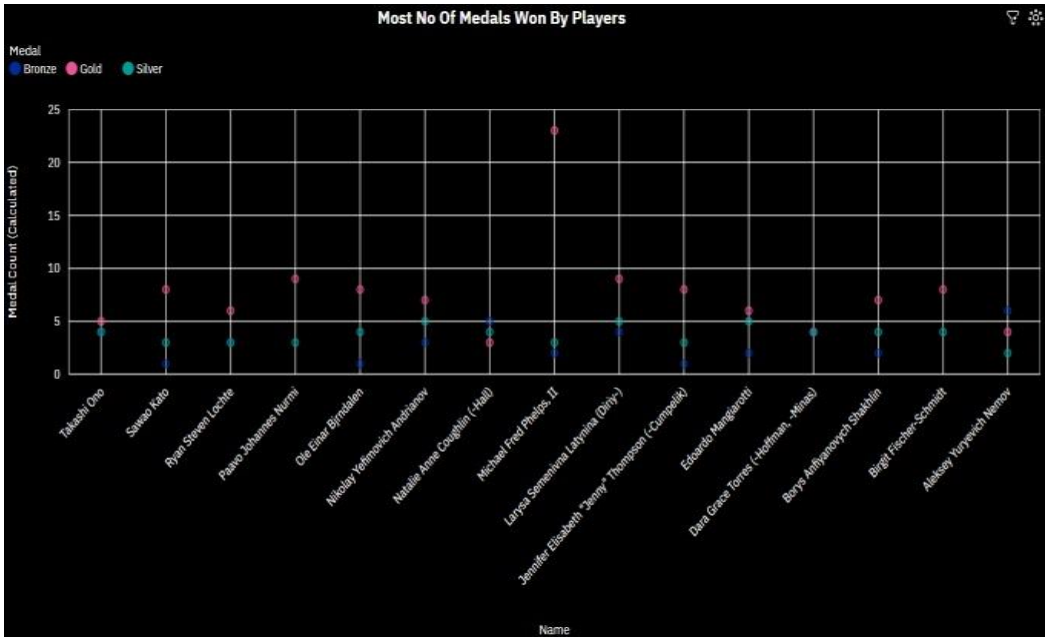
6.	Descriptive Reports	

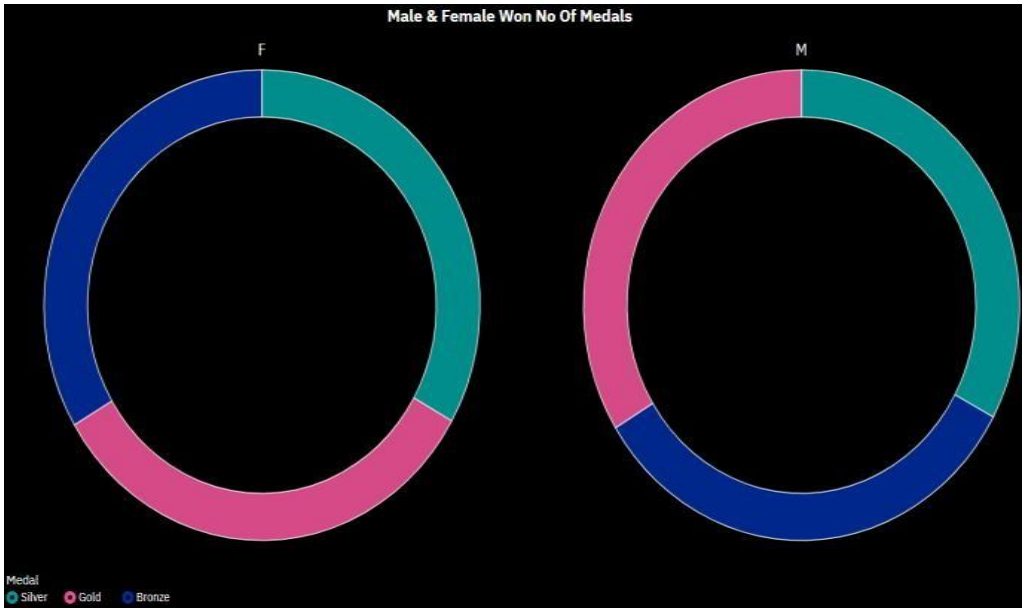
9 RESULTS

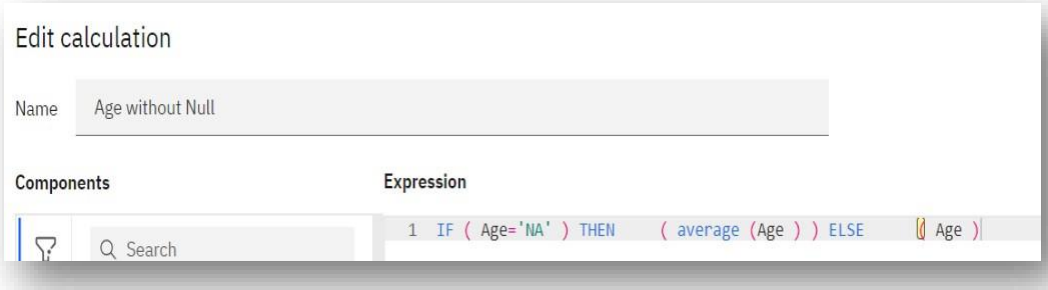
9.1 Output Screenshots



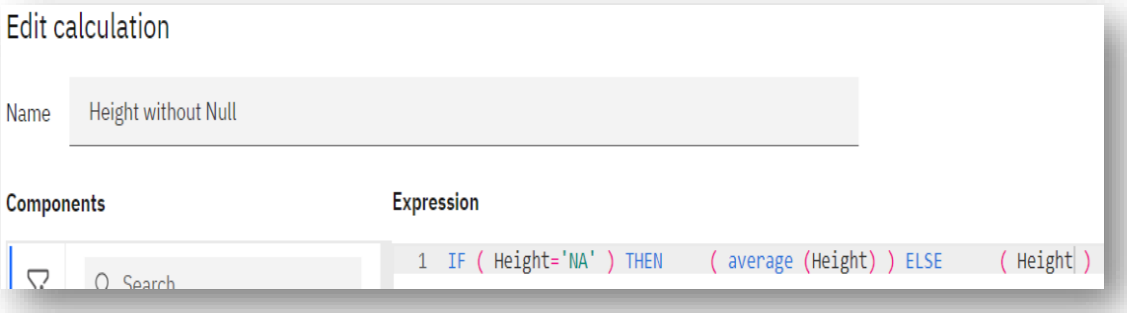


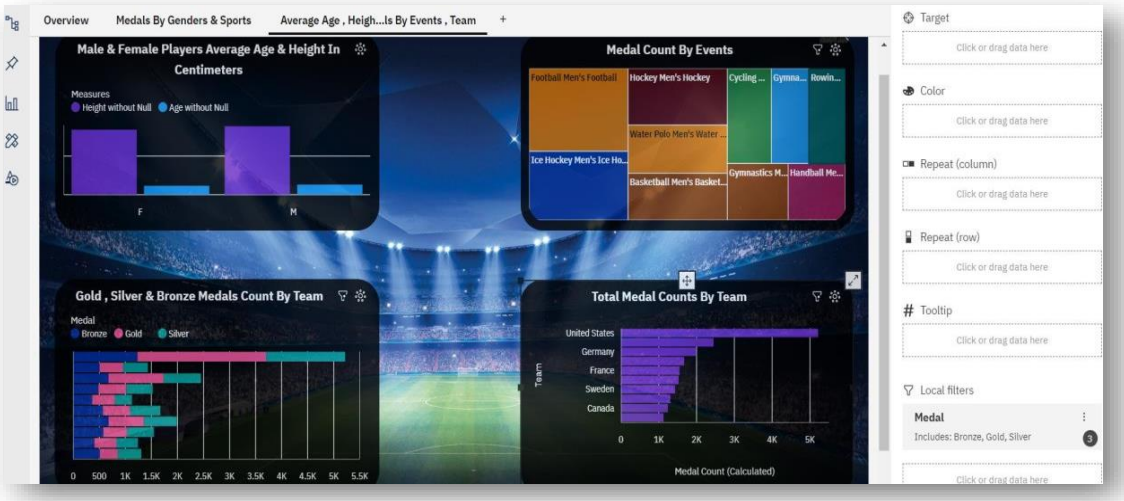

Most No Of Medals Won By Players
Medal
Bronze
Gold
Silver
Medal Count (Calculated)
25
20
15
10
5
0
Takashi Ono
Saiwo Kato
Ryan Steven Lochte
Paavo Johannes Nurmi
Ole Einar Bjrndalen
Nikolay Yefimovich Andrianov
Natalie Anne Coughlin (-Hall)
Michael Fred Phelps, II
Larysa Semenivna Latynina (Diriy-)
Jennifer Elisabeth "Jenny" Thompson (-Cumpelik)
Edoardo Mangiarotti
Dara Grace Torres (-Hoffman, -Minas)
Borys Anfiyanovych Shakhlin
Birgit Fischer-Schmidt
Aleksey Yuryevich Nemov
Name

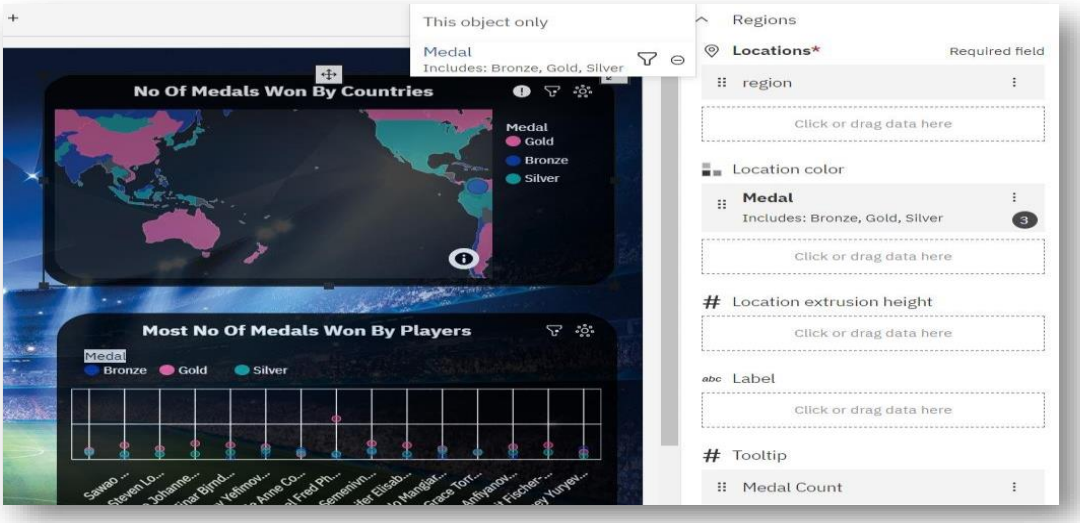

Male & Female Won No Of Medals
F
M
Medal
Silver
Gold
Bronze

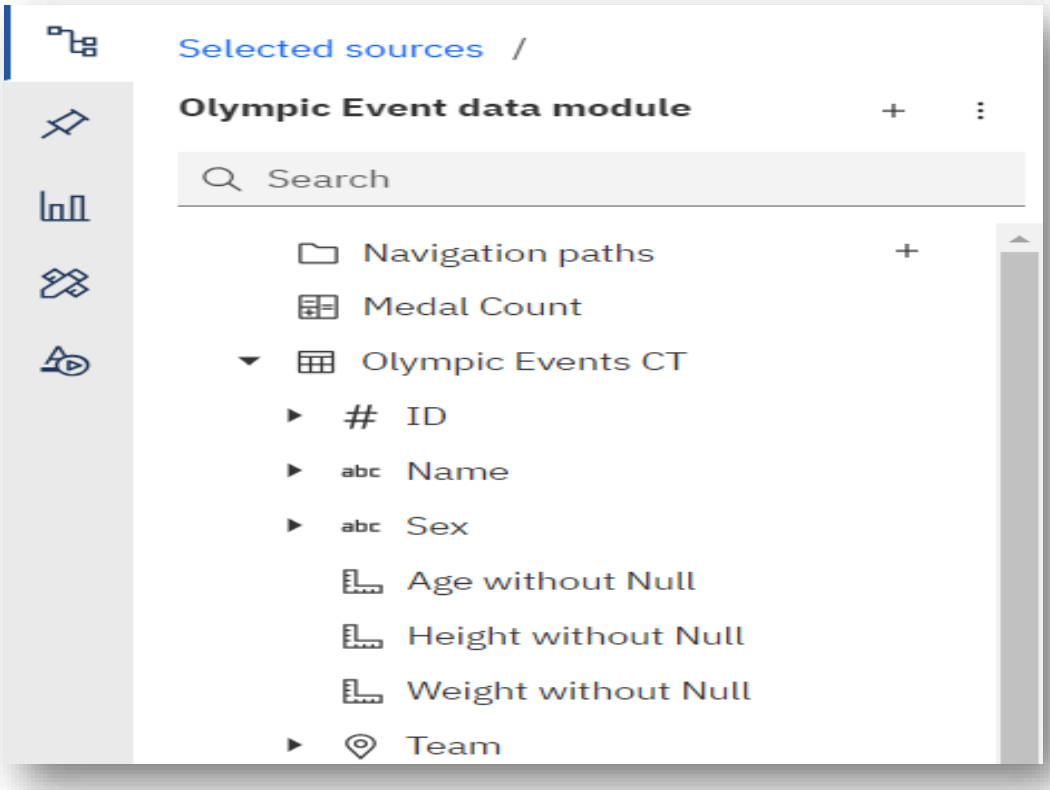

Edit calculation
Name
Age without Null
Components
Expression
Search
1 IF (Age='NA') THEN (average (Age)) ELSE (Age)

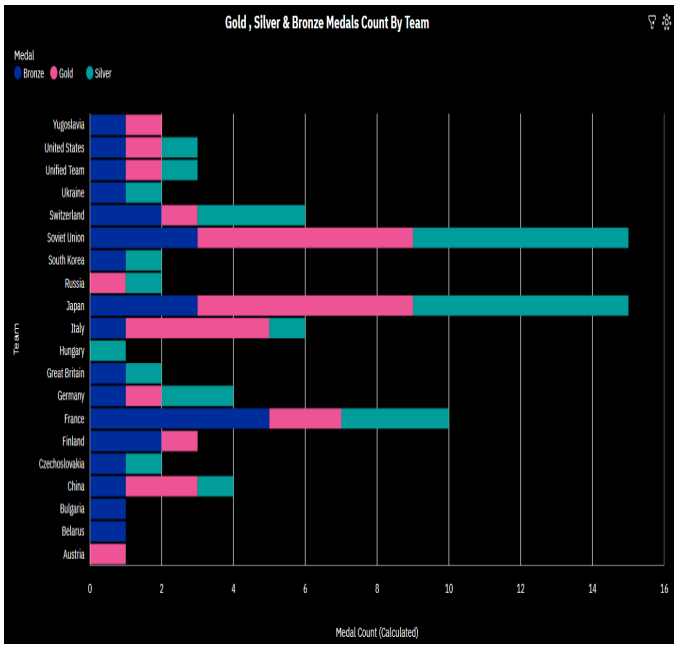

Edit calculation
Name
Weight without Null
Components
Expression
Search
1 IF (Weight='NA') THEN (average (Weight)) ELSE (Weight)

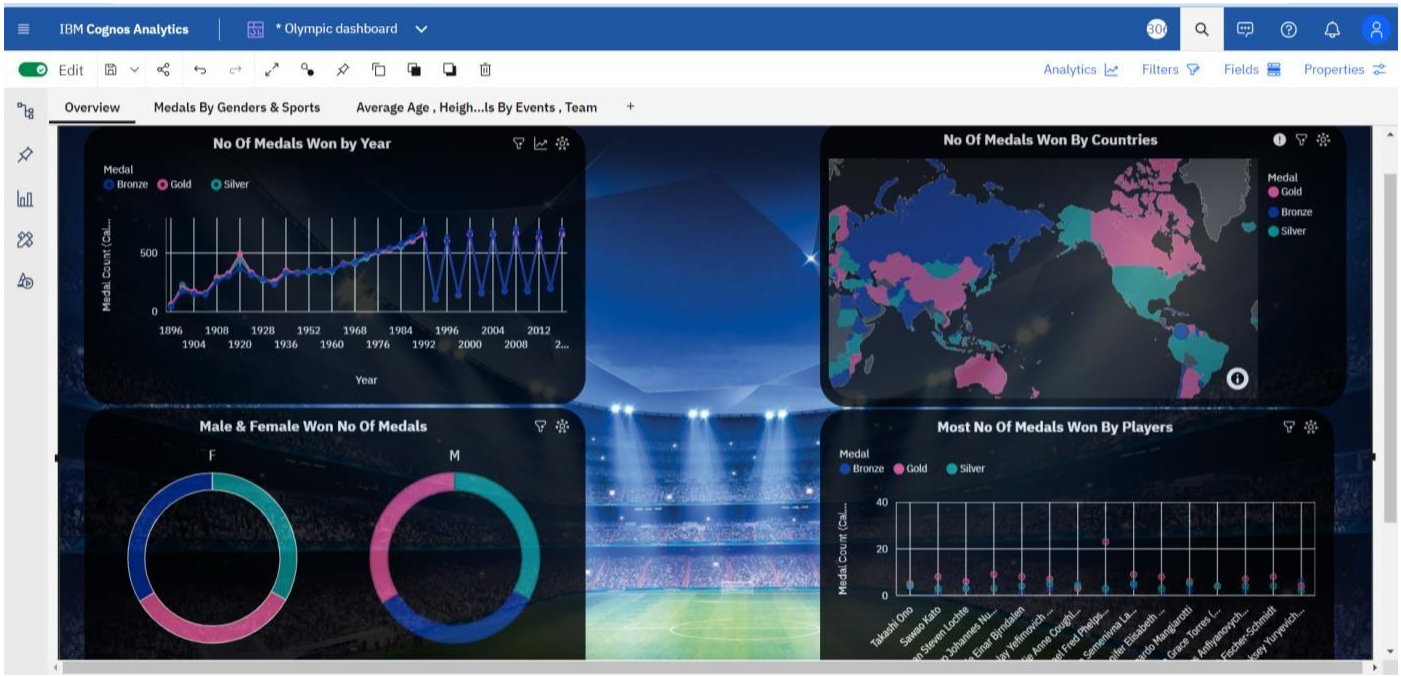

Edit calculation
Name
Height without Null
Components
Expression
Search
1 IF (Height='NA') THEN (average (Height)) ELSE (Height)

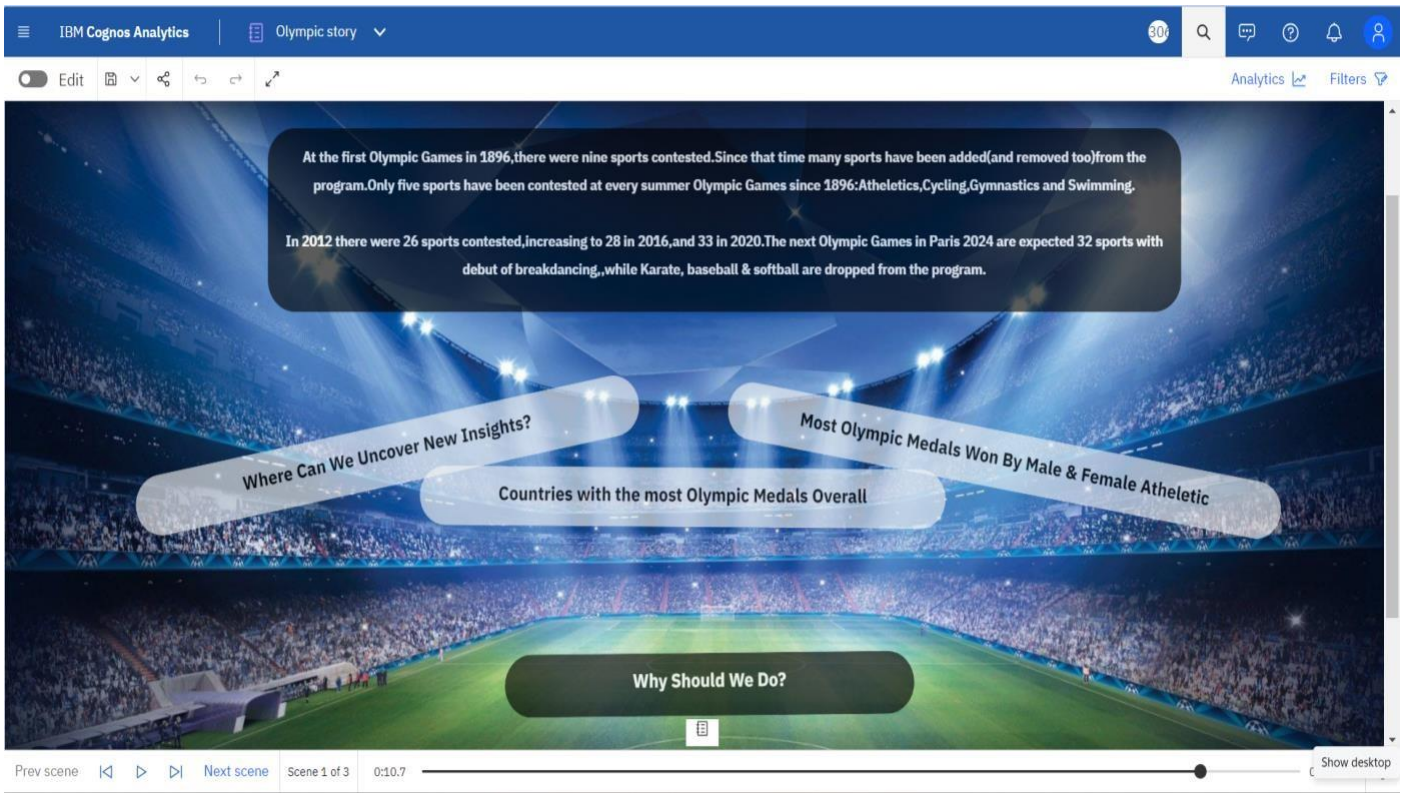

Overview
Medals By Genders & Sports
Average Age , Heigh...ls By Events , Team
Male & Female Players Average Age & Height In Centimeters
Measures
Height without Null
Age without Null
F
M
Medal Count By Events
Football Men's Football
Hockey Men's Hockey
Cycling ...
Gymna...
Rowin...
Water Polo Men's Water ...
Ice Hockey Men's Ice Ho...
Basketball Men's Basket...
Gymnastics M...
Handball Me...
Gold , Silver & Bronze Medals Count By Team
Medal
Bronze
Gold
Silver
0
500
1K
1.5K
2K
2.5K
3K
3.5K
4K
4.5K
5K
5.5K
Total Medal Counts By Team
United States
Germany
France
Sweden
Canada
Team
0
1K
2K
3K
4K
5K
Medal Count (Calculated)
Target
Click or drag data here
Color
Click or drag data here
Repeat (column)
Click or drag data here
Repeat (row)
Click or drag data here
Tooltip
Click or drag data here
Local filters
Medal
Includes: Bronze, Gold, Silver
3
Click or drag data here


This object only
Medal
Includes: Bronze, Gold, Silver
No Of Medals Won By Countries
Medal
Gold
Bronze
Silver
Most No Of Medals Won By Players
Medal
Bronze
Gold
Silver
Regions
Locations*
Required field
region
Click or drag data here
Location color
Medal
Includes: Bronze, Gold, Silver
3
Click or drag data here
Location extrusion height
Click or drag data here
Label
Click or drag data here
Tooltip
Medal Count


Selected sources /
Olympic Event data module
Search
Navigation paths
Medal Count
Olympic Events CT
ID
Name
Sex
Age without Null
Height without Null
Weight without Null
Team


Gold , Silver & Bronze Medals Count By Team
Medal
Bronze
Gold
Silver
Yugoslavia
United States
Unified Team
Ukraine
Switzerland
Soviet Union
South Korea
Russia
Japan
Italy
Hungary
Great Britain
Germany
France
Finland
Czechoslovakia
China
Bulgaria
Belarus
Austria
Team
0
2
4
6
8
10
12
14
16
Medal Count (Calculated)


IBM Cognos Analytics
* Olympic dashboard
Edit
Analytics
Filters
Fields
Properties
Overview
Medals By Genders & Sports
Average Age , Heigh...ls By Events , Team
No Of Medals Won by Year
Medal
Bronze
Gold
Silver
Medal Count (Cal...
500
0
1896
1904
1908
1920
1928
1936
1952
1960
1968
1976
1984
1992
1996
2000
2004
2008
2012
Year
No Of Medals Won By Countries
Medal
Gold
Bronze
Silver
Male & Female Won No Of Medals
F
M
Most No Of Medals Won By Players
Medal
Bronze
Gold
Silver
Medal Count (Cal...
40
20
0
Takashi Ono
Seiwo Kato
Fischer-Schmidt


IBM Cognos Analytics
Olympic story
Edit
Analytics
Filters
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:Atheletics,Cycling,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 of breakdancing,,while Karate, baseball & softball are dropped from the program.
Where Can We Uncover New Insights?
Most Olympic Medals Won By Male & Female Atheletic
Countries with the most Olympic Medals Overall
Why Should We Do?
Prev scene
Next scene
Scene 1 of 3
0:10.7
Show desktop

10 ADVANTAGES & DISADVANTAGES

Advantages:

- Detects and correct the errors from data sets with the help of data cleansing. Thishelps in improving quality of data.
- Deeper insight into the performance of countries in the Olympics over the years andhelps athletes to quickly analysis their own and competitors' performance.
- Helps in displaying relevant advertisements on the online websites based on historicdata and purchase behaviour of the users.
- Helps in preventing any wrongdoings and/or calamities.

Disadvantages:

- Due to former geographical or historical changes analysis may vary
- This may breach privacy of the customers as their information such as purchases, online transactions, subscriptions are visible to their parent companies.
- The cost of data analytics tools based on applications and features supported. Mostlysome of the data analytics tools are complex to use and require training. This increasescost to the company willing to adopt data analytics tools or software.
- It is very difficult to select the right data analytics tools. This is due to the fact that it requires knowledge of the tools and their accuracy in analysing the relevant data as per applications.
- The information obtained using data analytics can also be misused against group of people of certain country or community.

11 CONCLUSION

The main objective of this study was to analyse and visualise the various factorswhich have contributed to the Evolution of the Olympic Games over the years. This type of analysis is very helpful as this type of analysis can be performed by any Country or Player which can help them in analysing their performance so that they can improve their performance by changing their strategies. We have used a technique named Exploratory DataAnalysis which enables you to encapsulate the primary factors of a dataset into a visual format. We selected Python language to implement our work because it is one of the best languages suitable for Data Analysis and is the platform where we have performed this Analysis.

As a result of the Analysis, we can conclude that it is true that Olympic Games haveevolved considerably over time from the 1896 Olympic Games till the 2016 Rio Olympics. Various factors provide valid evidence that the Olympics have changed a lot. some of these factors are the launch of the Winter Olympic Games apart from the Summer Olympic Gamesin 1924, an increase in the number of participating countries in both Summer and Winter Olympics, the Average age of players in the Olympic Games, the increase in the participationof the females in both Summer and Winter Olympics over the time, Total number of medals won by various participating countries over the years, Average height and the weight of Players who contributes to victory of Games in the event. Apart from these, there are many more factors that depict the Evolution of the Olympic Games over time. Visualisation of thesefactors has been done to explain and validate the Analysis in various Graphical formats like aLine graph, Scatter Plots, Bar, Graphs, etc.

12 FUTURE SCOPE

We all know that any Analysis is not perfect and it consists of some limitations which define the Future scope of the Research Work. This project work also contains some limitations which we are considering as the Future Scope of the Project. We have visualised our data only in Graphical format. We can also describe the data in other formats like Geographical format where we can depict the countries on the World map. Till now we have only performed Data Analysis using Exploratory Data Analysis. We can also applyvarious Machine Learning Algorithms to the data set after Analysis and can create a PredictiveModel which can predict the statistics of the Future Olympic Games. We can also perform Correlation Analysis on the data set and analyse the relationship between two continuous variables.

13 APPENDIX

Source Code

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="utf-8">

  <meta content="width=device-width, initial-scale=1.0" name="viewport">

  <title>Olympic</title>

  <meta content="" name="description">

  <meta content="" name="keywords">

  <!-- Favicons -->

  <link href="static/img/favicon.png" rel="icon">

  <link href="static/img/apple-touch-icon.png" rel="apple-touch-icon">

  <!-- Google Fonts -->

  <link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Rale
way:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700
,700i" rel="stylesheet">

  <!-- Vendor CSS Files -->

  <link href="static/vendor/aos/aos.css" rel="stylesheet">

  <link href="static/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <link href="static/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">

  <link href="static/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">

  <link href="static/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">

  <link href="static/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

  <!-- Template Main CSS File -->

  <link href="static/css/style.css" rel="stylesheet">
```

```
</head>

<body>

  <!-- ======= Header ======= -->

  <header id="header" class="fixed-top  header-transparent ">

    <div class="container d-flex align-items-center justify-content-between">

      <div class="logo">

        <h1><a href="index.html"><img src="static/img/logo.png" width=130  alt="" class="img-fluid"></a></h1>

            </div>

      <nav id="navbar" class="navbar">

        <ul>

          <li><a class="nav-link scrollto active" href="#hero">Home</a></li>

          <li><a class="nav-link scrollto" href="#gallery">Dashboard</a></li>

         <li><a class="nav-link scrollto" href="#testimonials">Report</a></li>

          <li><a class="nav-link scrollto" href="#contact">Story</a></li>

        </ul>

        <i class="bi bi-list mobile-nav-toggle"></i>

      </nav><!-- .navbar -->

    </div>

  </header><!-- End Header -->

  <!-- ======= Hero Section ======= -->

  <section id="hero" class="d-flex align-items-center">

    <div class="container">

      <div class="row">
```

```
      <div class="col-lg-6 d-lg-flex flex-lg-column justify-content-center align-items-stretch pt-5 pt-lg-0 order-2 order-lg-1" data-aos="fade-up">

        <div>

          <h1>OLYMPIC SPORTS PERFORMANCE <br>ANALYSIS</br></h1>

          <p>The Olympic Games consist of various sports divided into summer,winter,and paralympic categories.Some of the sports included in the Olympics are athletics,swimming,gymnastics,cycling,basketball,volleyball,boxing,skiing,snowboarding,ice hockey,figure skating,curling,wheelchair basketball,para-athletics,para-cycling,para-swimming,and wheelchair tennis.Athletes from around the world compete in these sports to earn medals and represent their countries.</p>

        </div>

      </div>

      <div class="col-lg-6 d-lg-flex flex-lg-column align-items-stretch order-1 order-lg-2 hero-img" data-aos="fade-up">

        <img src="static/img/img1.png" class="img-fluid" alt="">

      </div>

    </div>

  </div>

 </section><!-- End Hero -->

 <main id="main">

  <!-- ======= Details Section ======= -->

  <section id="details" class="details">

    <div class="container">

      <div class="row content">

        <div class="col-md-4" data-aos="fade-right">

          <img src="static/img/img2.png" class="img-fluid" alt="">

        </div>

        <div class="col-md-8 pt-4" data-aos="fade-up">
```

<h3>WELCOME TO OLYMPIC SPORTS ANALYSIS.</h3>

The modern Olympic Games or Olympics are the leading international sporting events featuring summer and winter sports competitions in which thousands of athletes from around the world participate in a variety of competitions. The Olympic Games are considered the world's foremost sports competition with more than 200 teams, representing sovereign states and territories, participating.The Olympic Games are normally held every four years, and since 1994, have alternated between the Summer and Winter Olympics every two years during the four-year period.

The Summer Olympics programme includes 26 sports, while the Winter Olympics programme features 15 sports.Athletics, swimming, fencing, and artistic gymnastics are the only summer sports that have never been absent from the Olympic programme. Cross-country skiing, figure skating, ice hockey, Nordic combined, ski jumping, and speed skating have been featured at every Winter Olympics.Over time the Olympics have become bigger. In old times, women were not allowed, but now there are women's events.The Paralympic Games were created for athletes with physical disabilities. As well, the Olympics became bigger with the addition of the Youth Olympic Games for teenage athletes.The first, second, and third-place finishers in each event receive, respectively, gold, silver, and bronze medals.

<img src="static/img/img3.png" class="img-fluid" alt="">

<h3>FEW INSIGHTS FOR
OLYMPIC DATA ANALYSIS</br></h3>

```
      </div>
    </div>
  </section><!-- End Details Section -->
  <!-- ======= Gallery Section ======= -->
  <section id="gallery" class="gallery">
    <div class="container" data-aos="fade-up">
      <div class="section-title">
        <h2>Dashboard</h2>
      <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=.my_folders%2FOlympic%2Bdashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;mode=dashboard&amp;subView=model000001896e24ecc5_00000002" width="650" height="500" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
    </div>
  </section><!-- End Gallery Section -->
  <!-- ======= Testimonials Section ======= -->
  <section id="testimonials" class="testimonials section-bg">
    <div class="container" data-aos="fade-up">
      <div class="section-title">
        <h2>Report</h2>
  <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FOlympic%2BSports%2BReport&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=run&amp;format=HTML&amp;prompt=false" width="700" height="520"
frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
```

```
    </div>

  </section><!-- End Testimonials Section -->

  <!-- ======= Contact Section ======= -->

  <section id="contact" class="contact">

    <div class="container" data-aos="fade-up">

      <div class="section-title">

        <h2>Story</h2>

 <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_folders%2FOlympic%2Bstory&amp;closeWindowOnLastView=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=model00000189743ea311_00000002&amp;sceneTime=0" width="800" height="550" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

      </div>

    </div>

  </section><!-- End Contact Section -->

 </main><!-- End #main -->

 <!-- ======= Footer ======= -->

 <footer id="footer">

  <div class="footer-newsletter">

    <div class="container">

      <div class="row justify-content-center">

        <div class="col-lg-6">

          <h4>Join Our Newsletter</h4>

          <form action="" method="post">

            <input type="email" name="email"><input type="submit" value="Subscribe">

          </form>
```

```
        </div>
       </div>
      </div>
    </div>
    <div class="footer-top">
      <div class="container">
        <div class="row">
          <div class="row justify-content-center">
           <div class="col-lg-3 col-md-6 footer-contact">
            <h3>Olympic</h3>
            <p>
             Andhra Pradesh, <br>
             India<br>
              <strong>Phone:</strong> +1 5589 55488 55<br>
              <strong>Email:</strong> info@example.com<br>
            </p>
          </div>
          <div class="col-lg-3 col-md-6 footer-links">
            <h4>ABOUT OLYMPIC</h4>
            <P>The Olympic Games consist of various<br> sports divided into summer,winter,and paralympic categories.</br></P>
          </div>
          <div class="col-lg-3 col-md-6 footer-links">
            <h4>Our Social Networks</h4>
            <div class="social-links mt-3">
              <a href="#" class="twitter"><i class="bx bxl-twitter"></i></a>
```

```
            <a href="#" class="facebook"><i class="bx bxl-facebook"></i></a>
            <a href="#" class="instagram"><i class="bx bxl-instagram"></i></a>
            <a href="#" class="google-plus"><i class="bx bxl-skype"></i></a>
            <a href="#" class="linkedin"><i class="bx bxl-linkedin"></i></a>
          </div>
        </div>
      </div>
    </div>
  </div>
  <div class="container py-4">
    <div class="copyright">
      &copy; Copyright <strong><span>2023</span></strong>. All Rights Reserved
    </div>
    <div class="credits">
      <!-- All the links in the footer should remain intact. -->
      <!-- You can delete the links only if you purchased the pro version. -->
      <!-- Licensing information: https://bootstrapmade.com/license/ -->
      <!-- Purchase the pro version with working PHP/AJAX contact form:
https://bootstrapmade.com/free-bootstrap-app-landing-page-template/ -->
      Designed by <a class="fst-italic" href="https://bootstrapmade.com/">Sharon</a>
    </div>
  </div>
</footer><!-- End Footer -->
<a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-short"></i></a>
<!-- Vendor JS Files -->
```

```
  <script src="static/vendor/aos/aos.js"></script>
  <script src="static/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="static/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="static/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="static/vendor/php-email-form/validate.js"></script>
  <!-- Template Main JS File -->
  <script src="static/js/main.js"></script>
</body>
</html>
```

GitHub: https://github.com/praveen8074/Data-Driven-insights-on-Olympic-Sports-Participation-and-Performance

Project Demo Link: https://youtu.be/mze-HmdwyVE