

PROJECT REPORT

Project Title:

Data-Driven Insights On Olympic Sports
Participation And Performance

Team ID:LTVIP2523MID00352

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1.INTRODUCTION

Olympics is considered as most important event worldwide, which provides common platform to players from various nations to show their talents. Olympics has been started at 1896, which is being conducted once in every four years. The goal of this paper is to analyze performance and participation of nations in Olympics from 1896 to 2020. In addition, the field of sports of particular country in particular year, in which they have contributed the maximum can be identified. The comparison of the performance of each sports with other can be done. The field of sports, that has to have more participation can be identified and necessary action can be taken by players and nations to enhance themselves in future contributions towards Olympics.

1.1 OVERVIEW

Exporting database

When dealing with Olympic data, we have two CSV files. One containing outturn sports-related costs of the Olympic Games of all years. And other is containing the information about athletes of all years when they participated with information. we have to download those two files.

Data cleaning and formatting

This involves identifying and correcting errors or inconsistencies in the data, such as missing values, outliers, and duplicates. Various techniques can be used for data cleaning, such as imputation, removal, and transformation.

Merging two DataFrame

Here we are going to merge two dataframe. And it is set to create visualizations.

Creating dashboards

A dashboard helps you to monitor events or activities at a glance by providing key insights and analysis about your data on one or more pages or screens.

Procedure

1. Click the **New** icon and then click **Dashboard**.
2. Select a template to use and click **OK**.

Predefined templates contain grid lines for easy arrangement and alignment of visualizations and other elements. For example, you can create an infographic to convey information with pictures on one page that you scroll through.

IBM Cognos Analytics provides templates that contain predefined designs and grid lines for easy arrangement and alignment of the visualizations.

You can setup your dashboard to create the layout you need for your business purposes.

Creating story:

A story is a type of view. A story is composed of a set of scenes that are displayed in sequence over time. Stories can be used to provide your data with a visual narrative.

- **Creating a story**

Stories are effective ways to share a narrative. They can be as simple or as complex as you need them to be. You can create a story from scratch or from an existing dashboard.

Creating report:

Create a report by clicking the new icon in the IBM Cognos Analytics portal and then clicking Report. When you create a report, you are actually creating a report specification. The report specification defines the queries and prompts that are used to retrieve data and the layouts and styles used to present the data. For simplicity, the report specification is named by the same name as the report.

Creating a website:

We created a website by using visual studio code. After creating the dashboards, story, reports by putting altogether in a website. For that we have used visual studio code to create a website.

1.2 Purpose

The Olympic Games are an international sports festival, held every four years. The ultimate goals are to cultivate human beings, through sport, and contribute to world peace. Summer Games and Winter Games are held separately.

The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practiced without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play

GENDER EQUALITY THROUGH TIME:

Sport is one of the most powerful platforms for promoting gender equality and empowering women and girls. Great progress has been made in terms of balancing the total number of athletes participating at the Games

INTEGRITY

Integrity in sport is multi-dimensional in nature, and the various aspects of it are all linked to the ethical principles which form part of the Fundamental Principles of Olympism. To illustrate and clarify these different facets, the IOC has published a paper called: “**Integrity in sport: IOC Approach**”, which is updated regularly.

Sustainability

The IOC takes a proactive approach to ensure that sustainability is embedded in all aspects of organising the Olympic Games. Leaving a sustainable and positive legacy for the host city and country is a primary, achievable objective for all organisers of the Olympic Games

2.LITERATURE SURVEY

Literature review Policy belief in a demonstration effect Political and policy-making thinking in relation to the potential sport legacies of the Olympic Games and other major events appears to be largely derived from an intuitive belief, anecdotally supported by sport administrators, that watching or experiencing elite sport performances or events inspires people to actively participate in sport themselves (Hindson, Gidlow, & Peebles, 1994; Hogan & Norton, 2500). Illustrative of the view of many of those in leadership positions in both sport and in politics was the comment of former UK Minister for Sport and Chair of the British Olympic Association during London 2512's Olympiad, Colin Moynihan, that 'London 2512 will motivate a whole generation of young people as they seek to emulate their Team GB heroes both on and off the sporting field'

There is evidence that a belief in the demonstration effect has underpinned sport development (and sport funding) policy in a number of countries for decades. Hogan and Norton (2500), examining sport policy and funding in the context of the Sydney 2500 Olympic and Paralympic Games, noted that the direction of central government funding strategies and the belief in the effect of successive Australian Sport Ministers, the Confederation of Australian Sport and the co-ordinator of sport science at the Australian Institute of Sport, provided evidence that the dominant view in Australian sport was that: 'These champions and potential champions provide an important inspiration for others to "have a go". As well, greater participation will lead to a healthier Australian Community' (Australian Senator and Minister for Sport, Graham Richardson, cited in McKay, 1991, p. 81). This political belief in a demonstration effect is not limited to Australia. In New Zealand, the Chief Executive of the Hillary Commission for Sport claimed that 'the performance of New Zealand's athletes have clear flow through to national esteem and increased sports participation' (cited in Hindson et al., 1994, p. 17). In the USA, the report of the Surgeon General also made specific reference to the Olympic Games, stating: Although participants in the modern Olympic Games no longer compete with the Gods, today's athletes inspire others to be physically active and to realise their potential – an inspiration as important for modern peoples as it was for the ancient Greeks. (US Surgeon General, 1996, p. 12) Gratton and Taylor (2500), Green and Houlihan (2505) and Houlihan and White (2502) have all discussed the 'demonstration effect'. Houlihan and White (2502, p. 67) noted that it has been the 'conventional rationalisation' of an emphasis on elite sport development over a number of years in the UK, but suggested that justifying elite funding on these grounds is 'dubious'. Notwithstanding this view, Lord Coe's belief in the potential of the London 2512 Olympic and Paralympic Games to raise sport participation was undoubtedly underpinned by the demonstration effect: I've always felt the primary

purpose of a medal is that it signifies a big British moment – and big British moments in sport have to have a conversion rate. For the Chris Hoys [Olympic cycling Gold medallist at the Beijing Games] of this world, and our rowers and swimmers, the real challenge for our governing bodies and for sport more broadly is, how many people can you get into the sport off the back of that great moment? (Coe, 2508b, para. 18) Gratton and Taylor's (2500, p. 113) view was in line with Coe's, as they suggested that: there is a 'demonstration effect' which will almost certainly beneficially affect the number of people participating in sport, their frequency of participation and/or possibly the number of years they participate. However, none of these perspectives are underpinned by empirical evidence but, as noted earlier, by intuition and in some cases anecdote and, in Coe's case, appears to be driven by a political desire to demonstrate positive outcomes. Gratton and Taylor (2500) hint at this lack of evidence as they went on to qualify their view, and noted that the processes by which a demonstration effect may work are not clear, particularly the respective influence of performances (success) versus the mere existence of events, and whether the 198 M. Weed et al. effect is linked to specific individuals or teams that are meaningful to those in whom participation is thought to be triggered.

2.1 Existing Problem:

The now Olympics have been in a state of moral crisis for some time, mired in countless controversies over bribery, corruption, financial waste, cheating, environmental damage, forced displacement of local residents and, more recently, the pandemic. But as the Times sports columnist Kurt Streeter wrote last week, "Beijing 2522 sits at a whole other level of discord."

How, then, should we think about the weight of complicity in what some are calling the "Genocide Olympics"? What moral responsibility does China's human rights record place on all those who participate, from corporate sponsors to athletes to casual viewers?

2.2 Proposed solution:

The reality of many athlete development systems, particularly those that are government funded, is that financial resources are limited. With this critical constraint in mind, we emphasize the need to improve the efficiency of the overall system so that these limited funds are used more effectively. For instance, knowing that current approaches to talent identification are surprisingly poor (see Baker and Wattie, 2518), a central question relates to how we can support more athletes, for longer, along the pathway. One solution would be a shift away from early identification (as discussed earlier) to longer periods of engagement within the athlete development system, although this would require a different approach to the management of resources and potentially places greater emphasis on understanding athlete needs across the pathway. What is clear from prior work in this area (e.g., Baker and Côté, 2506) is that these needs are not stable and a greater understanding of how, and why, these elements change over time would promote better targeting of resources. Unfortunately, as we have noted earlier, our understanding of the processes of talent development is

rather limited and it is difficult to provide clear, evidence-based solutions for athlete resourcing beyond *athletes should have as few barriers to their training as possible*.

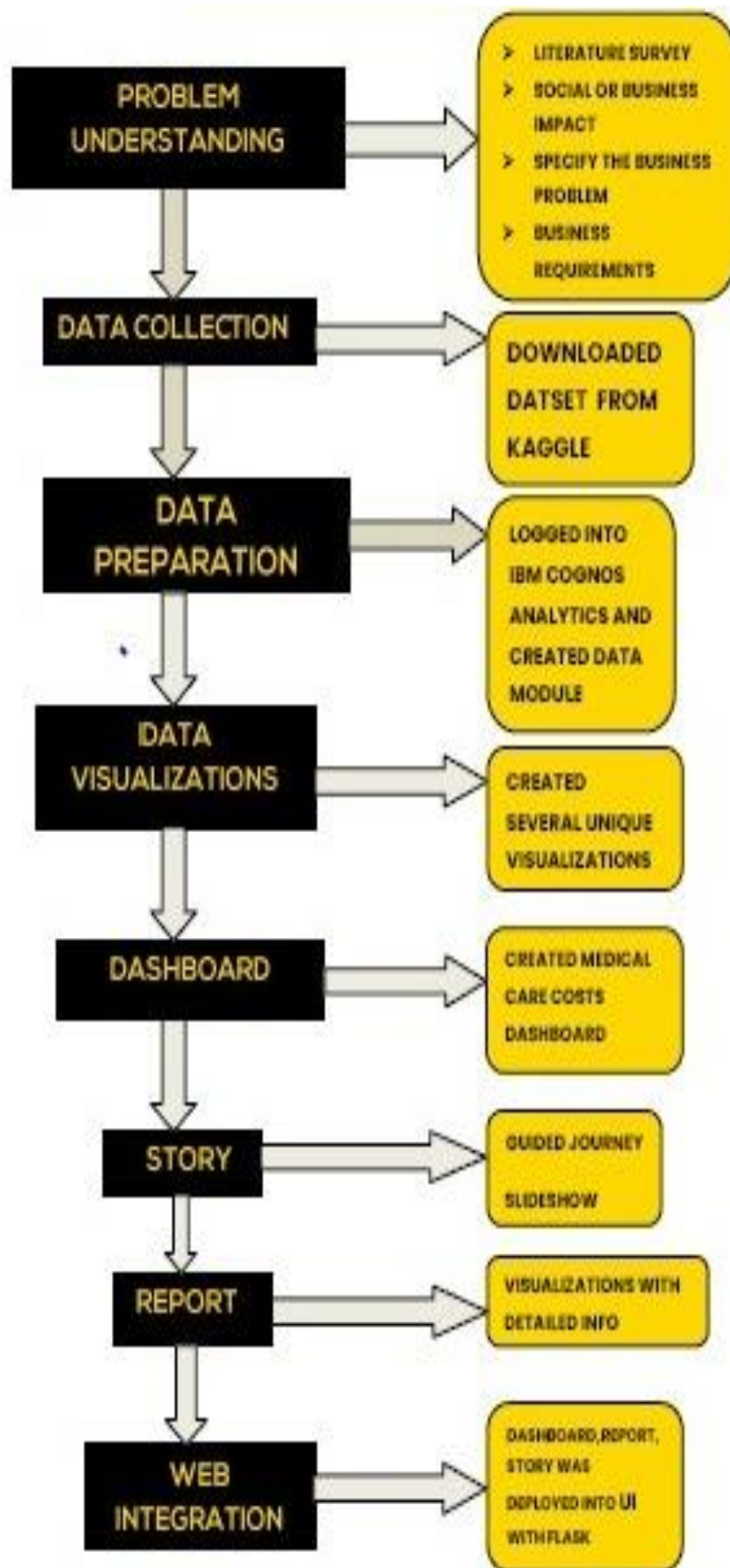
Further, management of coach training (Pillar 2) may need to be modified to maximize the limited resources available in this area. In the era of social media, near-constant connectivity and access to big data, traditional approaches to coach education may need to be updated. These emerging platforms emphasize the value of developing stronger communities of practice for coaches and could facilitate sharing information across contexts. A weakness of the current use of these technologies is that it is difficult to separate the 'signal' from the 'noise' [i.e., the important information from the useless data; (Silver, 2512)]. In the current social media climate where the loudest voice, not the most accurate one, is often the only one that is heard, *high performance sport stakeholders might take a more active role in 'filtering' information to their end-users to increase ease of access to high quality information* (e.g., by operating their own social media platforms that deliver high quality information).

3.THEORETICAL ANALYSIS

3.1 Block Diagram

Data-Driven Insights On Olympic Sports Participation And Performance

- Project Flow
- Define Problem / Problem Understanding
- Data Collection & Extraction From Database
- Data Preparation
- Data Visualization
- Dashboard
- Story
- Report
- Performance Testing
- Web Integration
- Project Demonstration & Documentation



3.2 SOFTWARE OR HARDWARE DESIGNING

Software Requirements:

IBM cognos analytics Tool

Flask

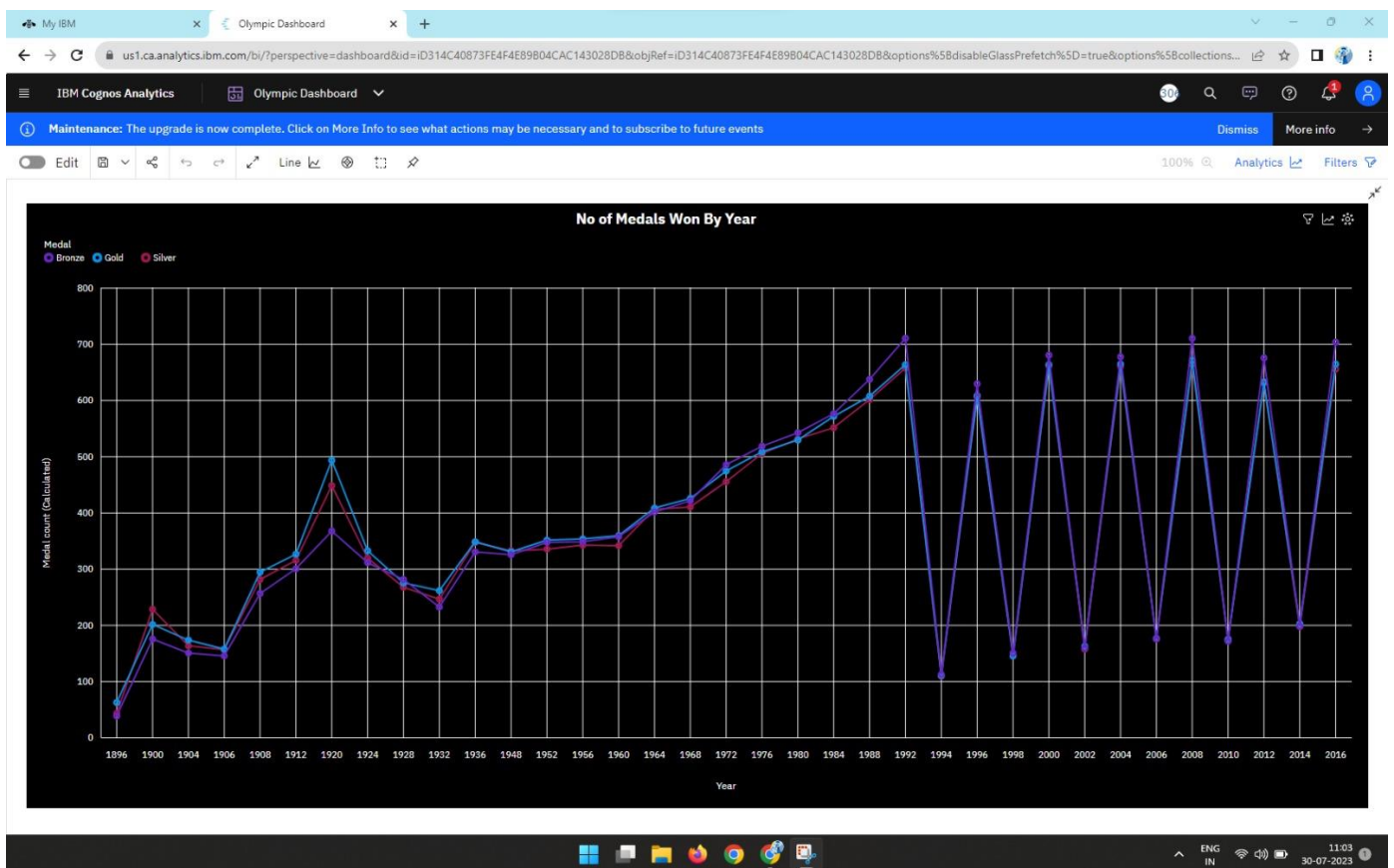
Integrated Development Environment (IDE)-visual studio code

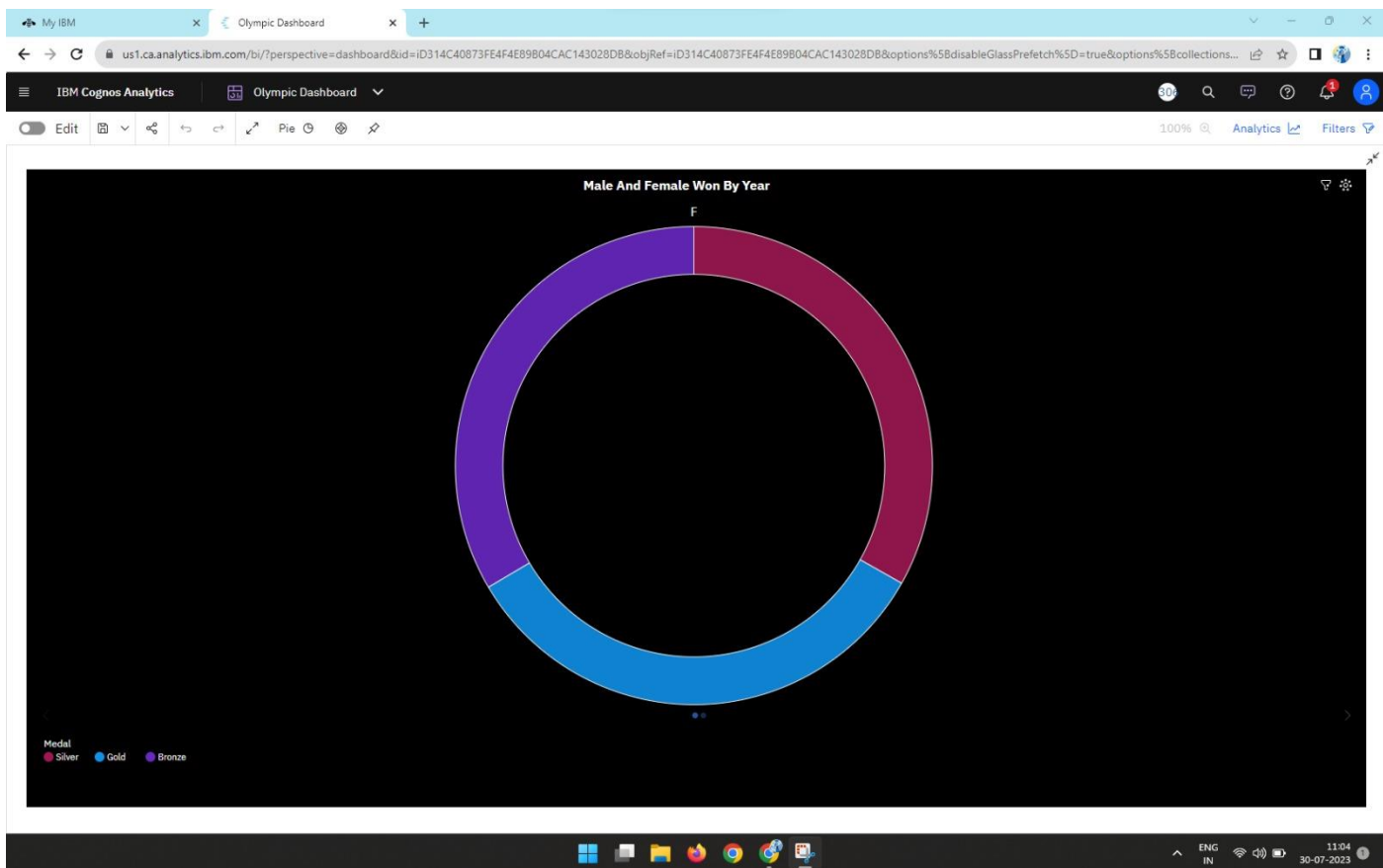
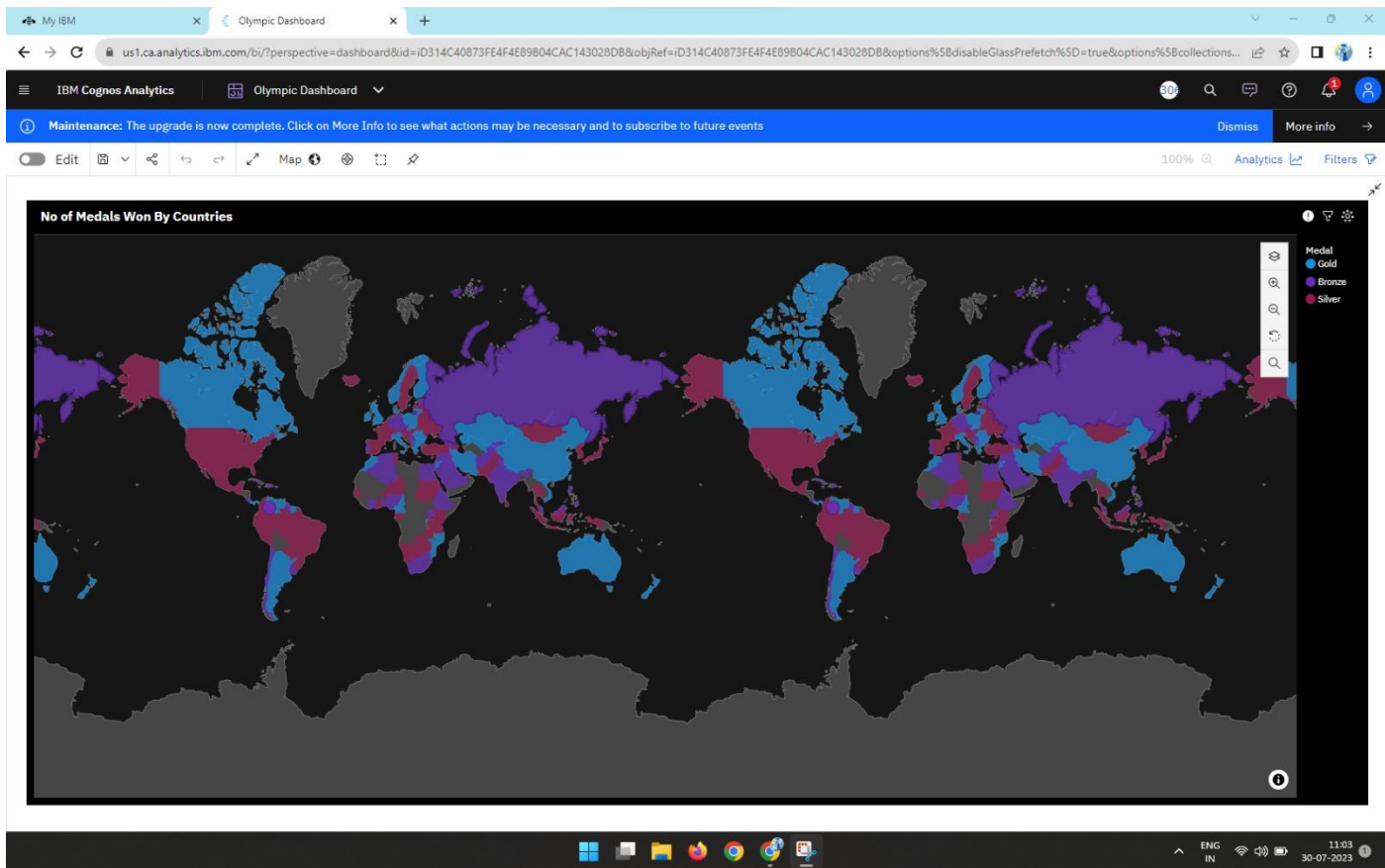
Hardware Requirements:

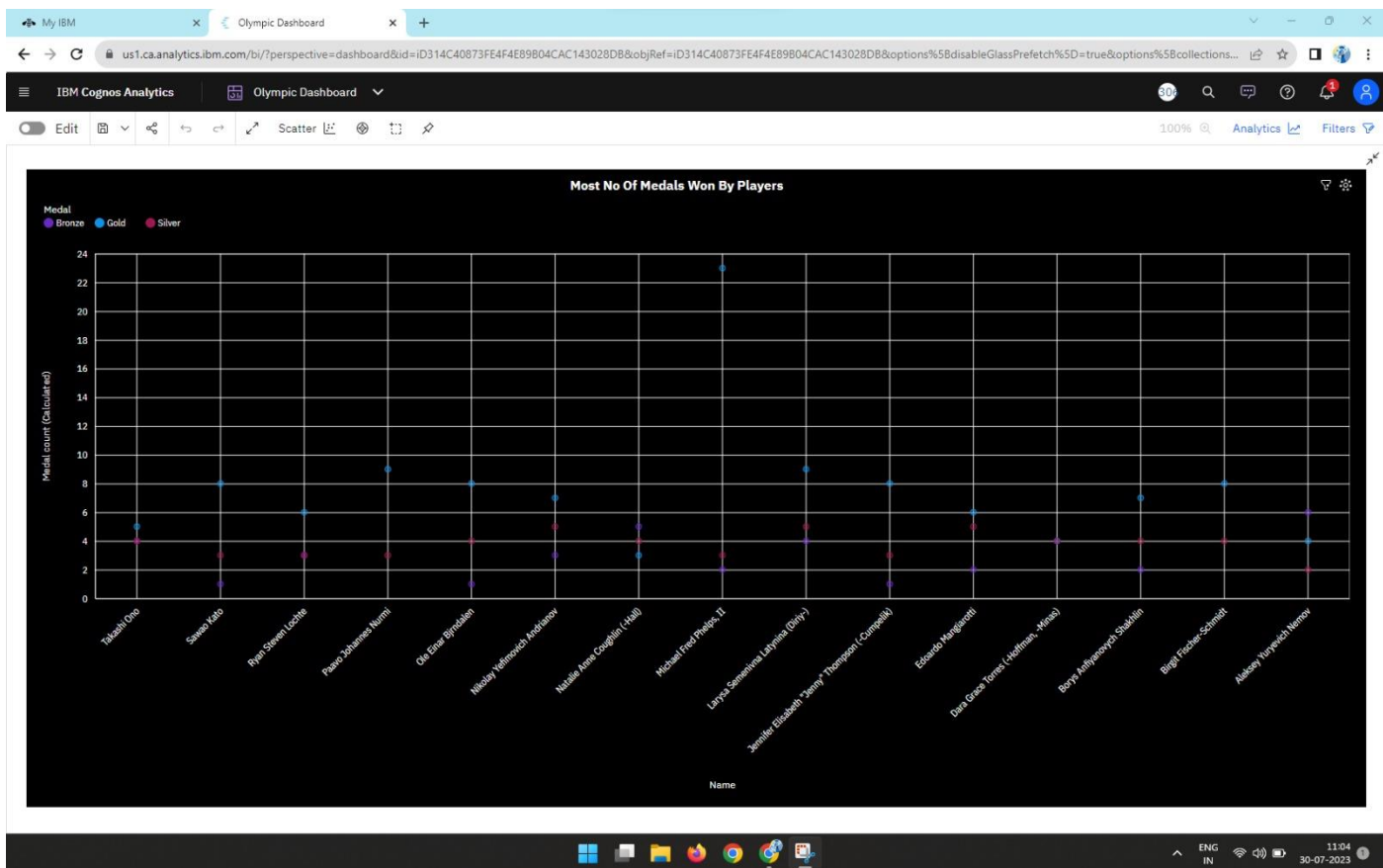
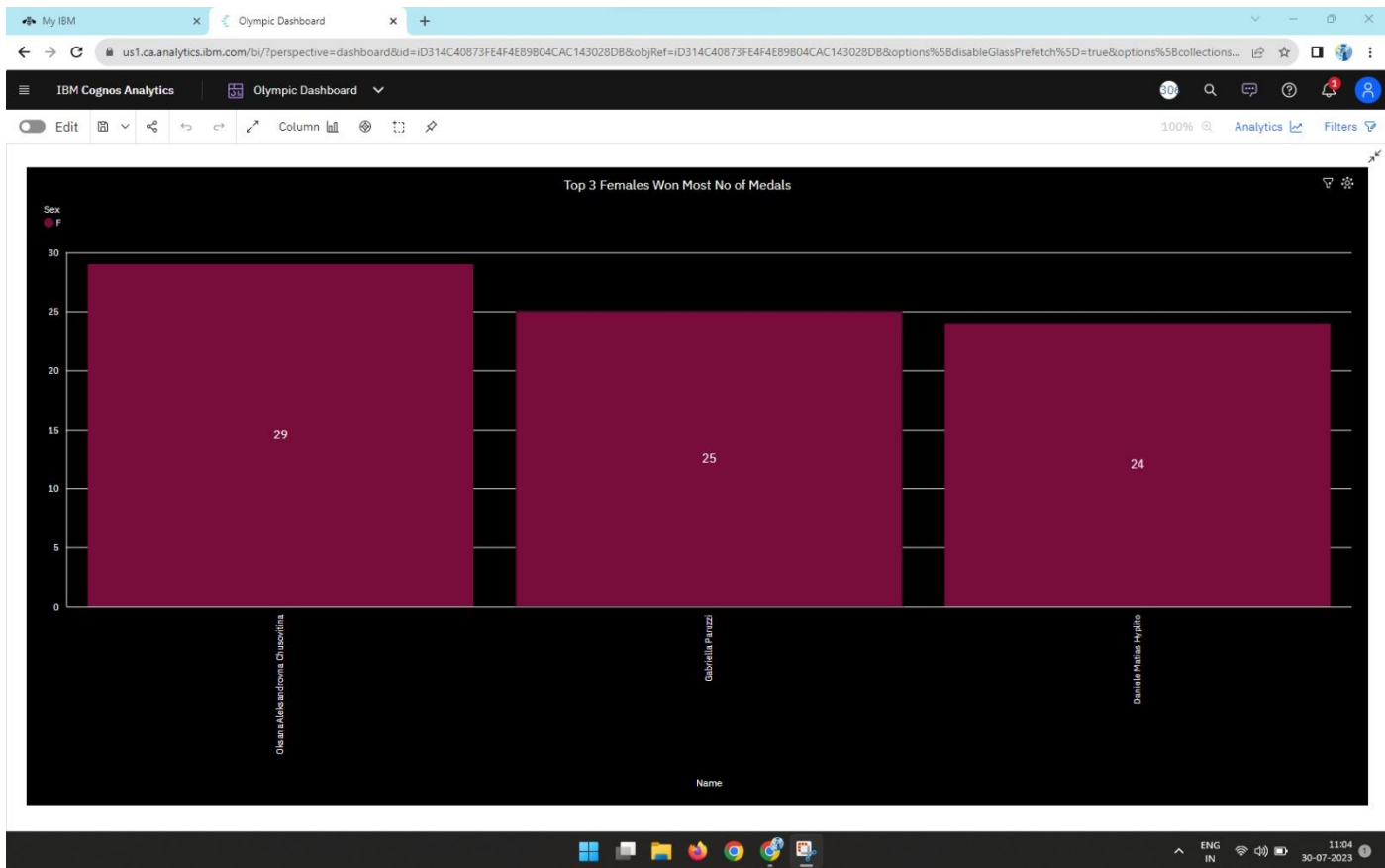
Minimum System Requirements(RAM-4GB,Quad core— Processor Or above).

4.RESULT

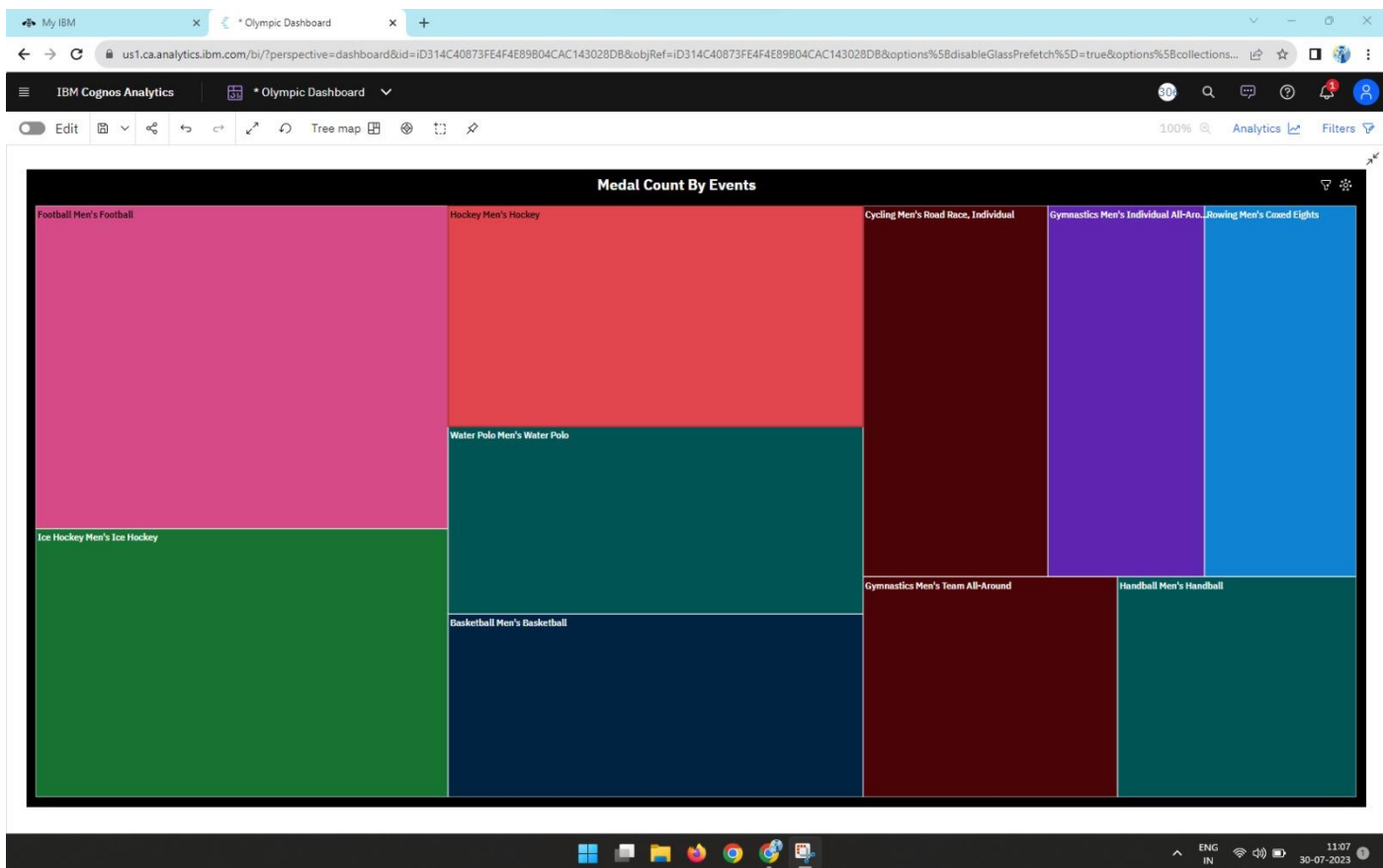
DATA VISUALIZATIONS:

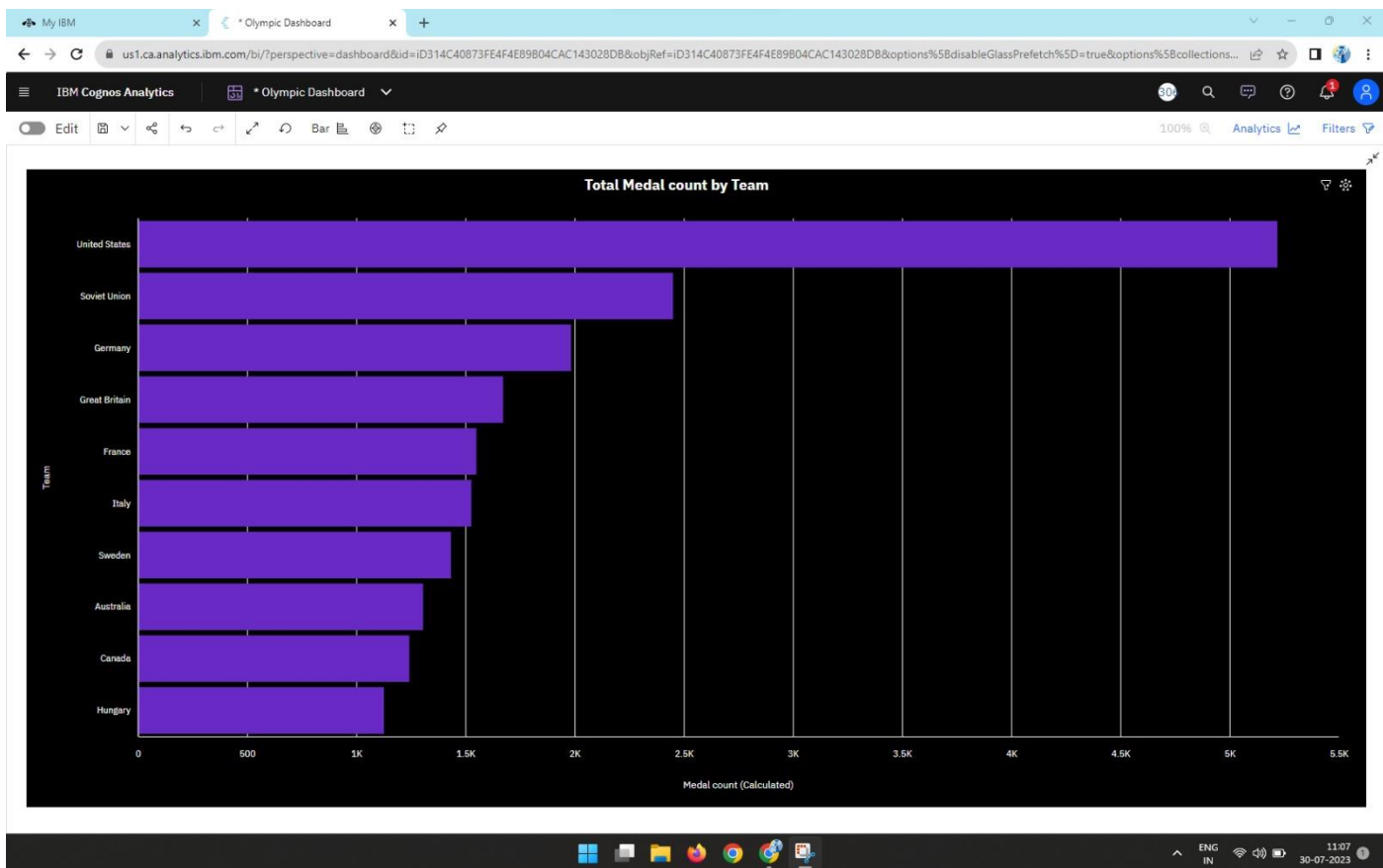
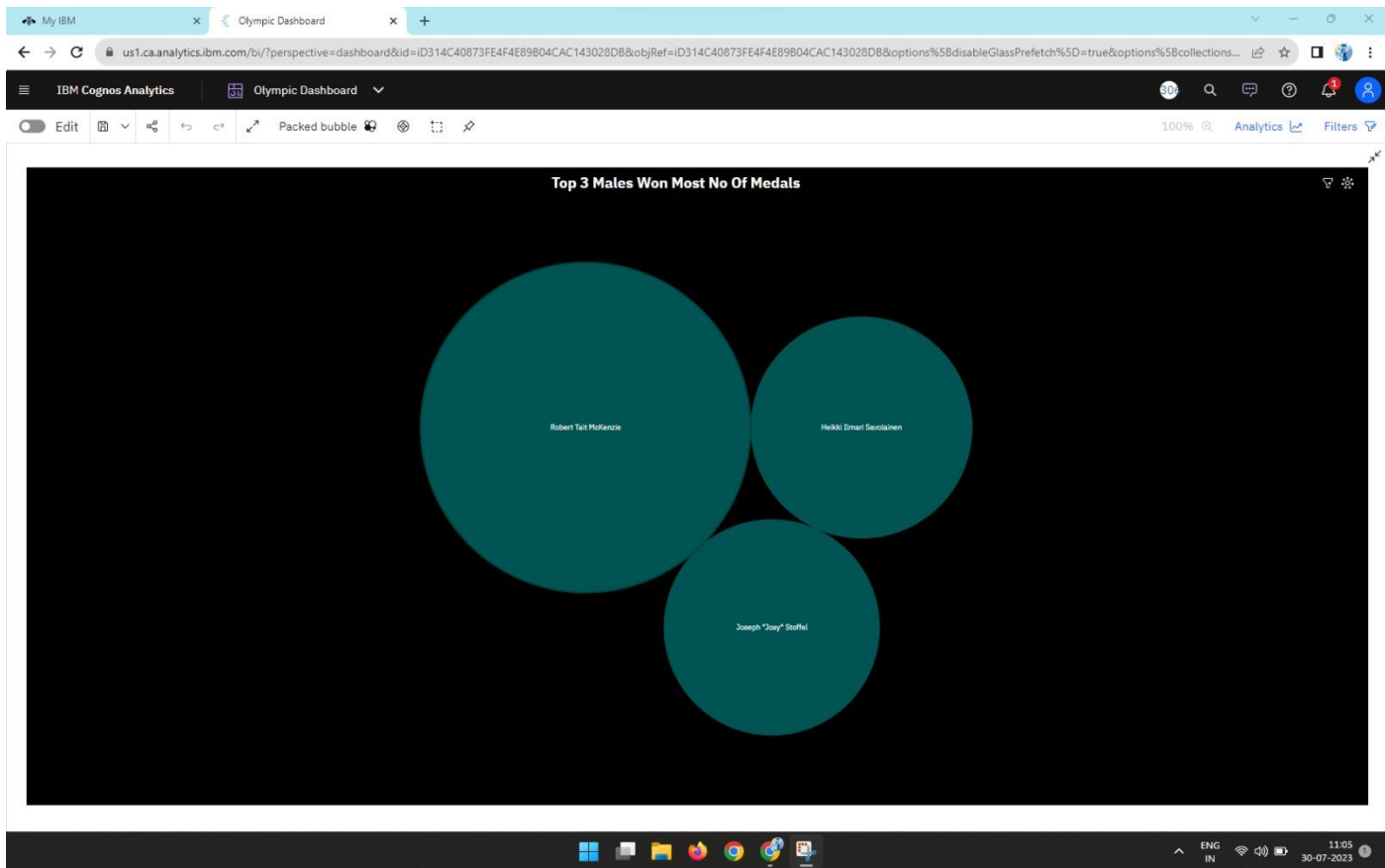


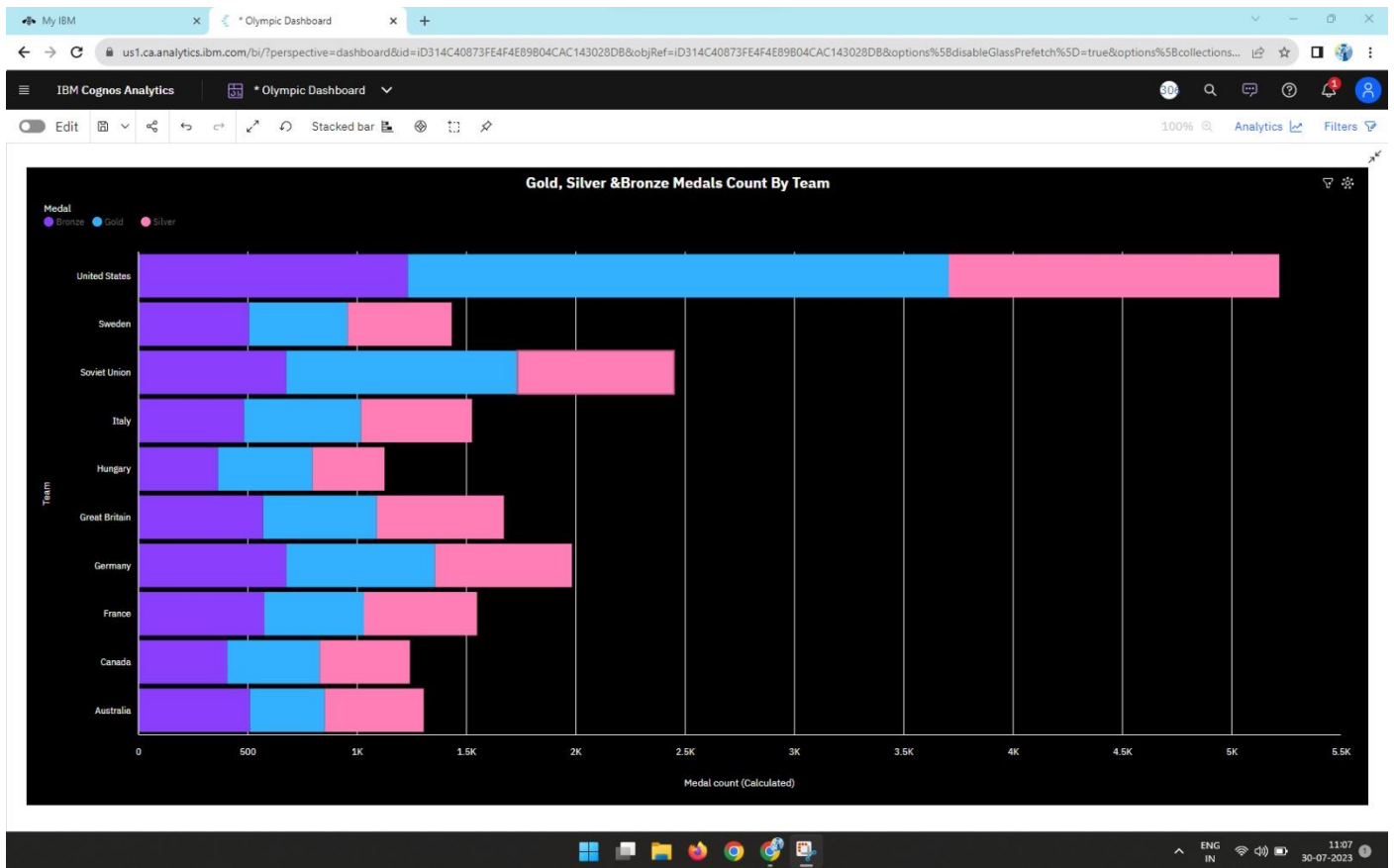




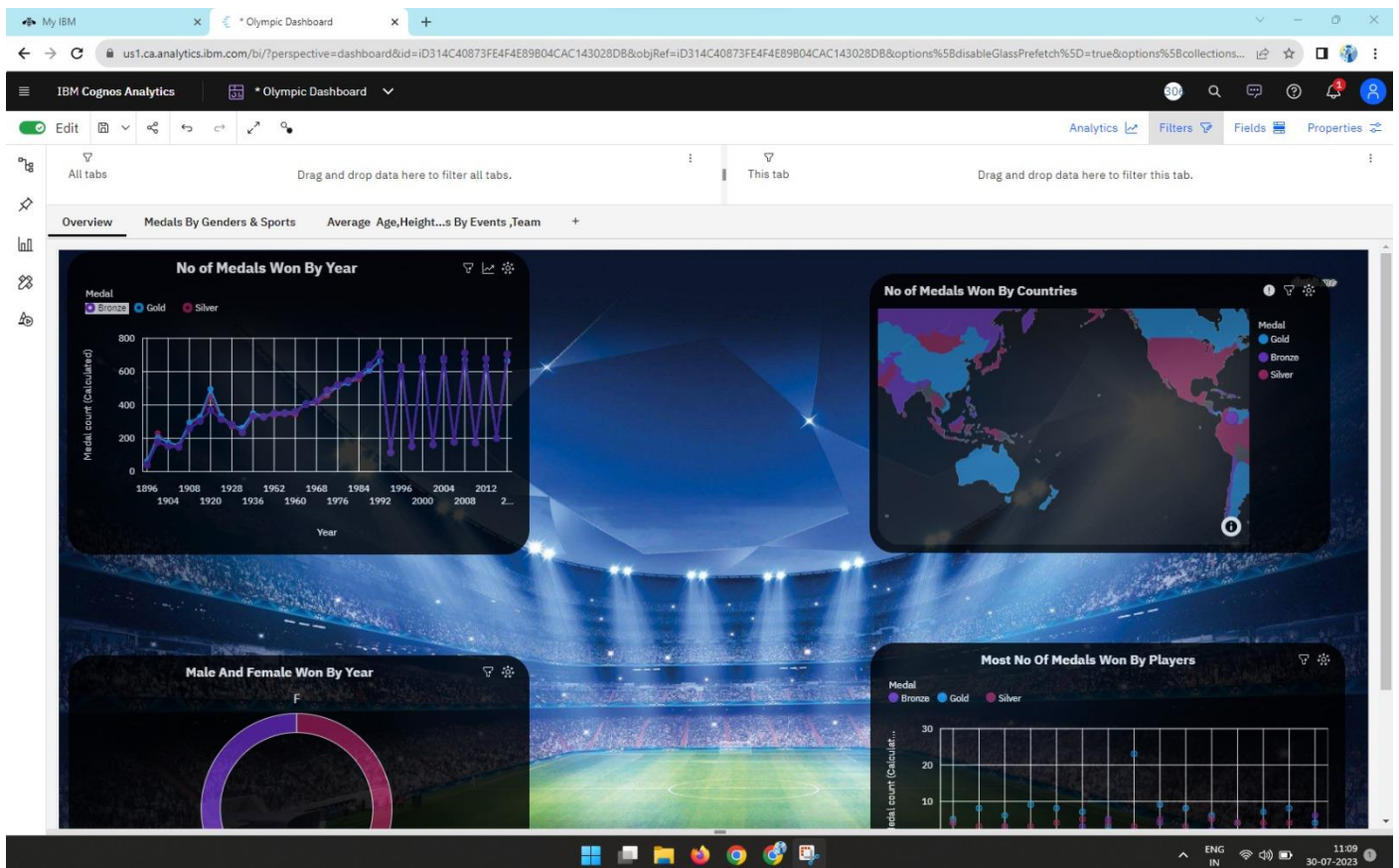








OLYMPIC DASHBOARDS



OLYMPIC STORY

My IBM | Olympic Story

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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: Athletics, Cycling, Fencing, Gymnastics and Swimming.

In the year of 2012 there were 26 sports contested, increased 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 Insight?

Most Olympic medals won by male & Female Athletes

Countries with the most Olympic Medals Overall

What Should We Do?

Prev scene | Next scene | Scene 1 of 3 | 0:09.8 | 0:12.0

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My IBM | Olympic Story

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IBM Cognos Analytics | Olympic Story

Edit

Analytics Filters

Most Olympic Medals Won by Female & Male Athletes

Top 3 Females Won Highest No Of Medals

Name	Medals
Vera slansk (-Odolov) 11	11
Larisa Semenivna Latynina (Dity-J) 18	18
Natalie Anne Coughlin (-Hall) 12	12
Birgit Fischer-Schmidt 12	12
Jennifer Elisabeth "Jenny" Thompson (-Cu...) 12	12
Dara Grace Torres (-Hoffman, -Mina) 12	12

Top 3 Males Won Highest No Of Medals

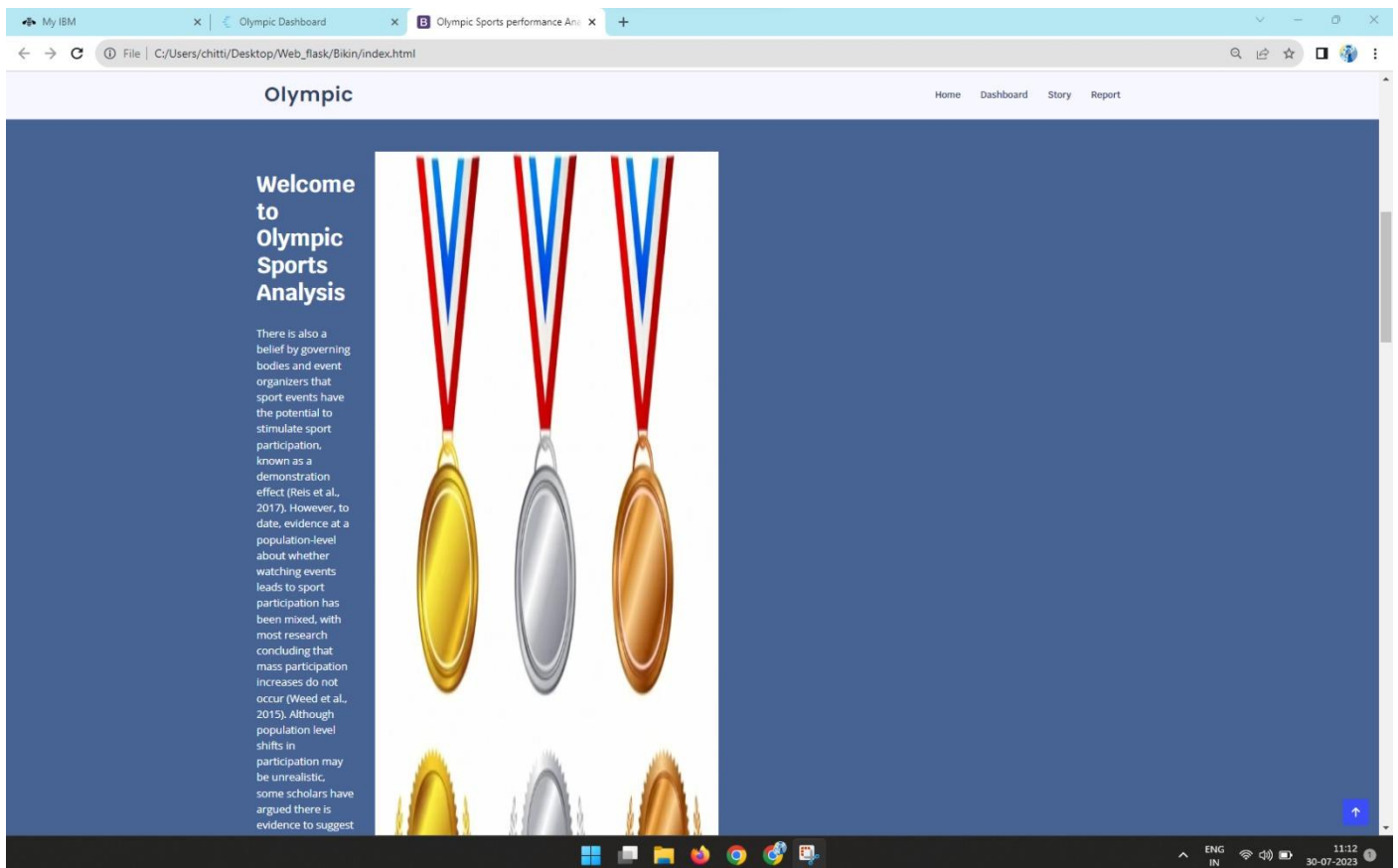
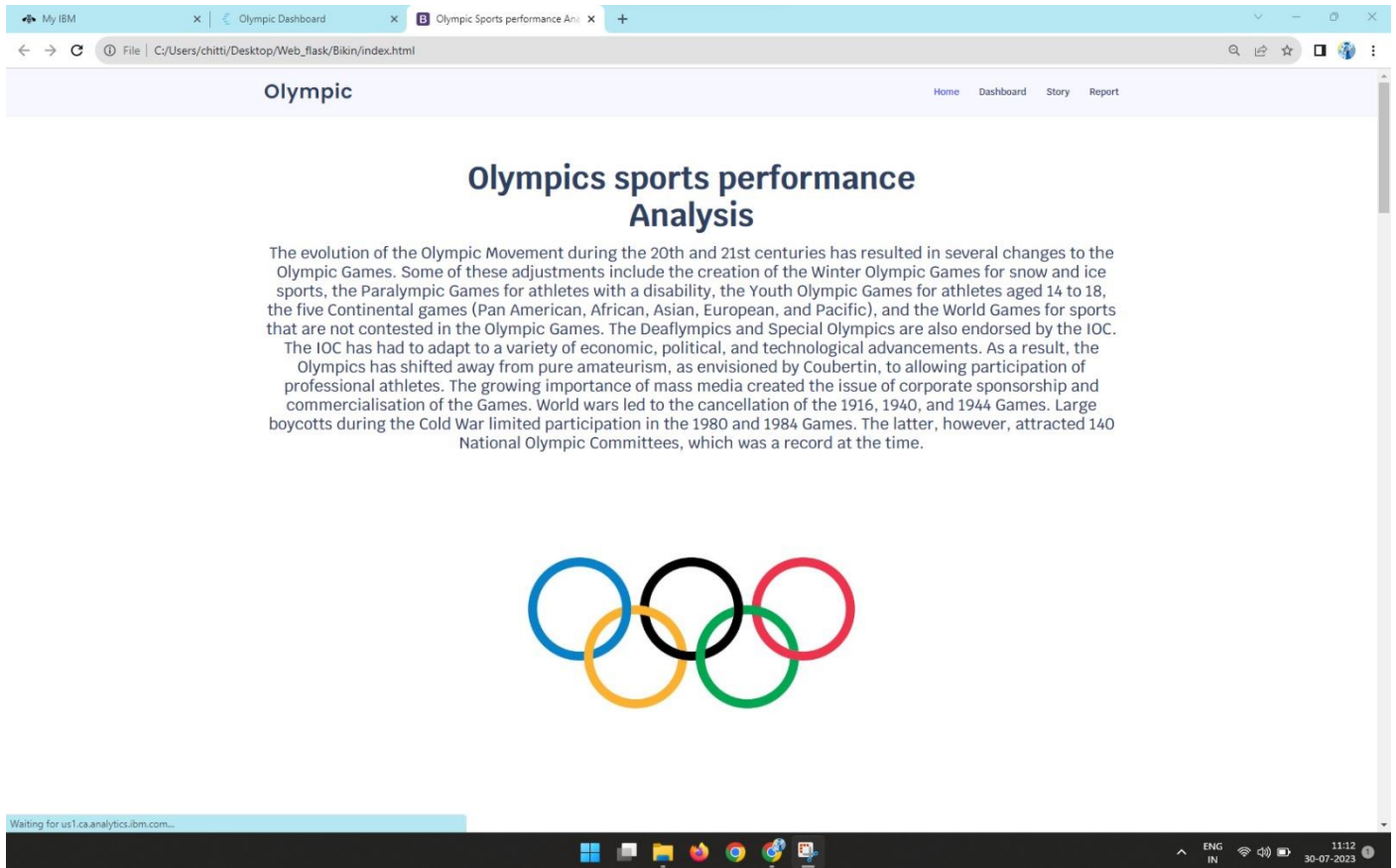
Name	Medals
Michael Fred Phelps, II	28
Nikolay Yefimovich Andrianov	15
Boris Anifanovich Shakhlin	13
Edoardo Mangiarotti	13
Ole Einar Bjørndalen	13
Takashi Ono	13

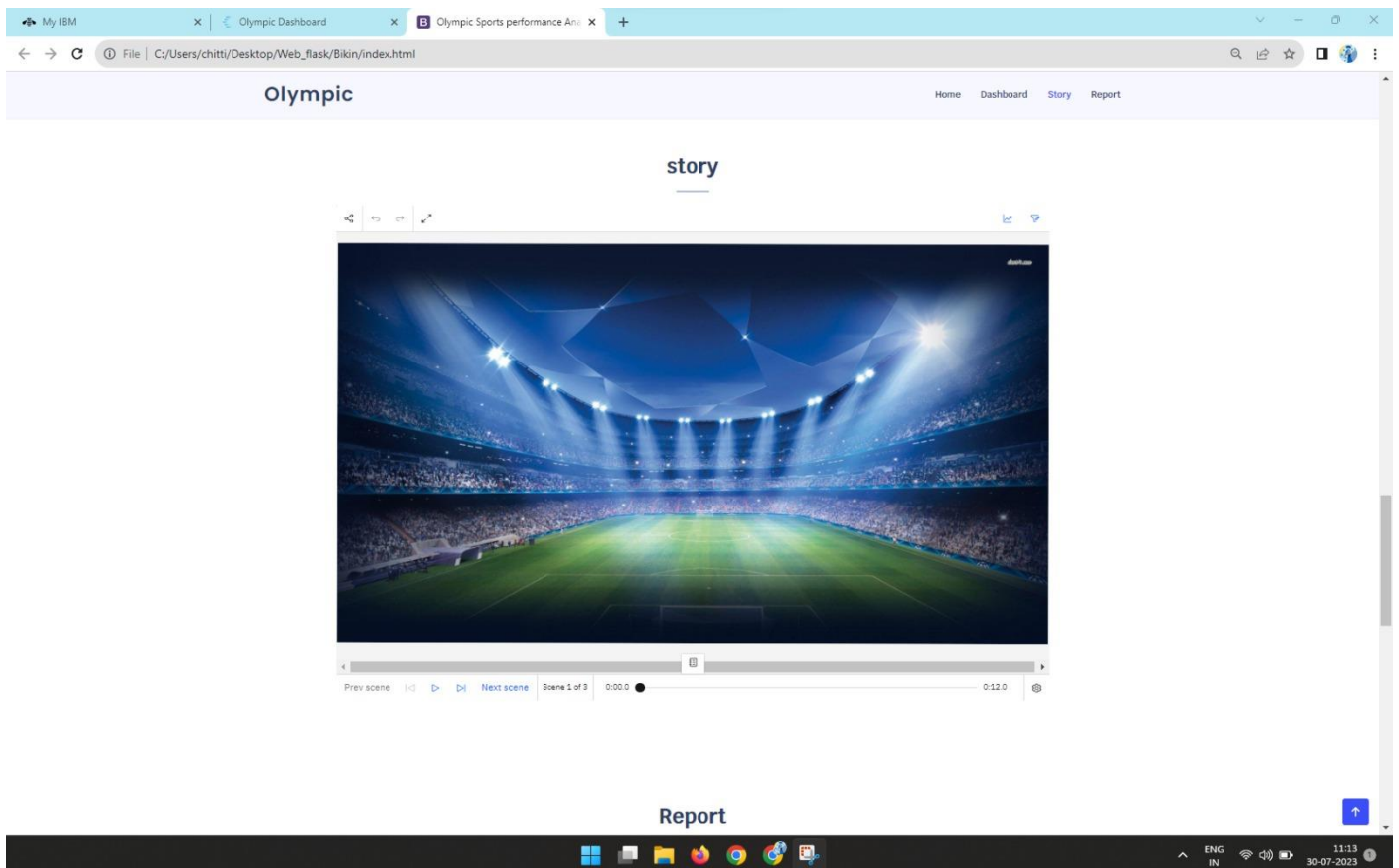
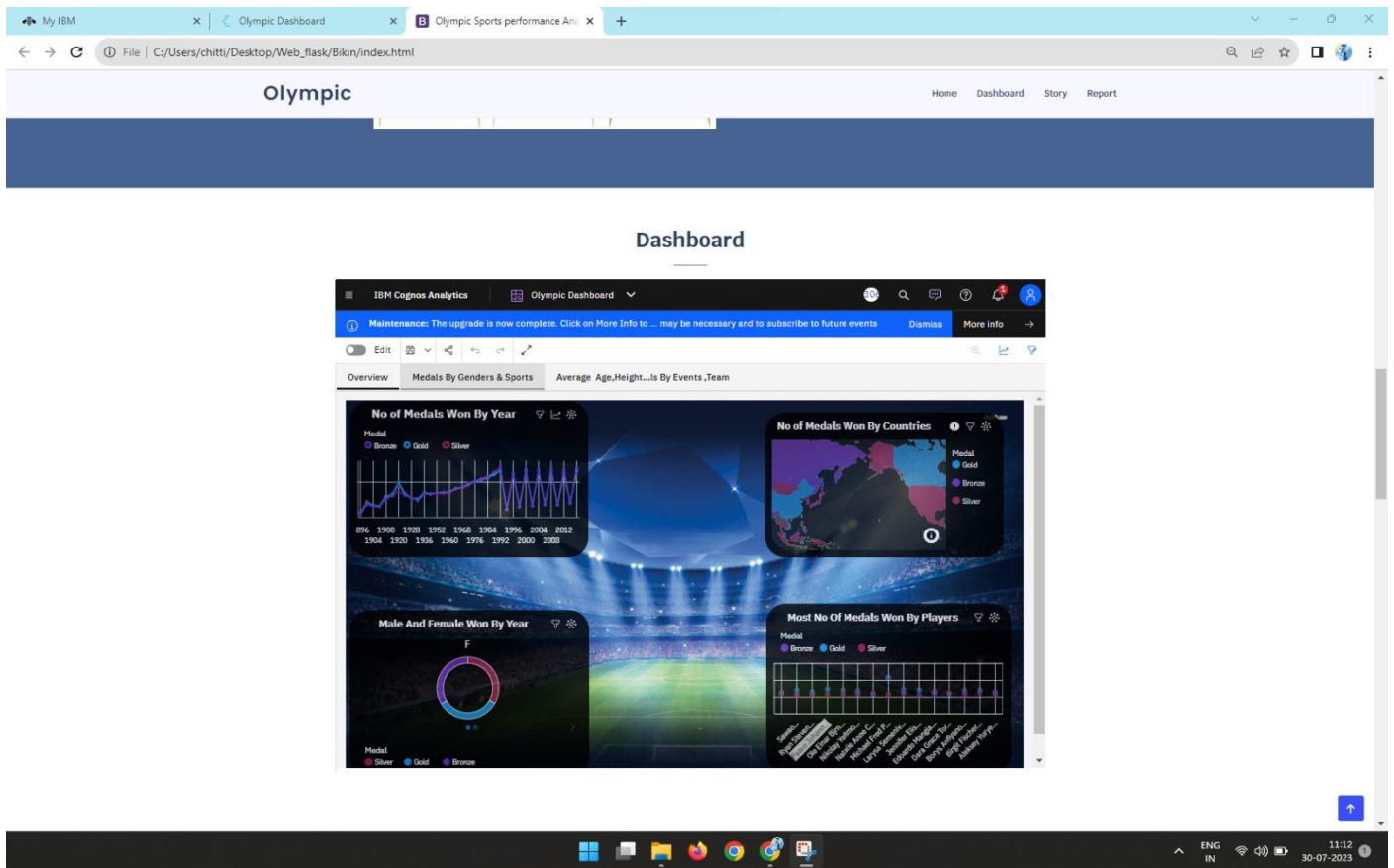
Medal Count (Calculated)

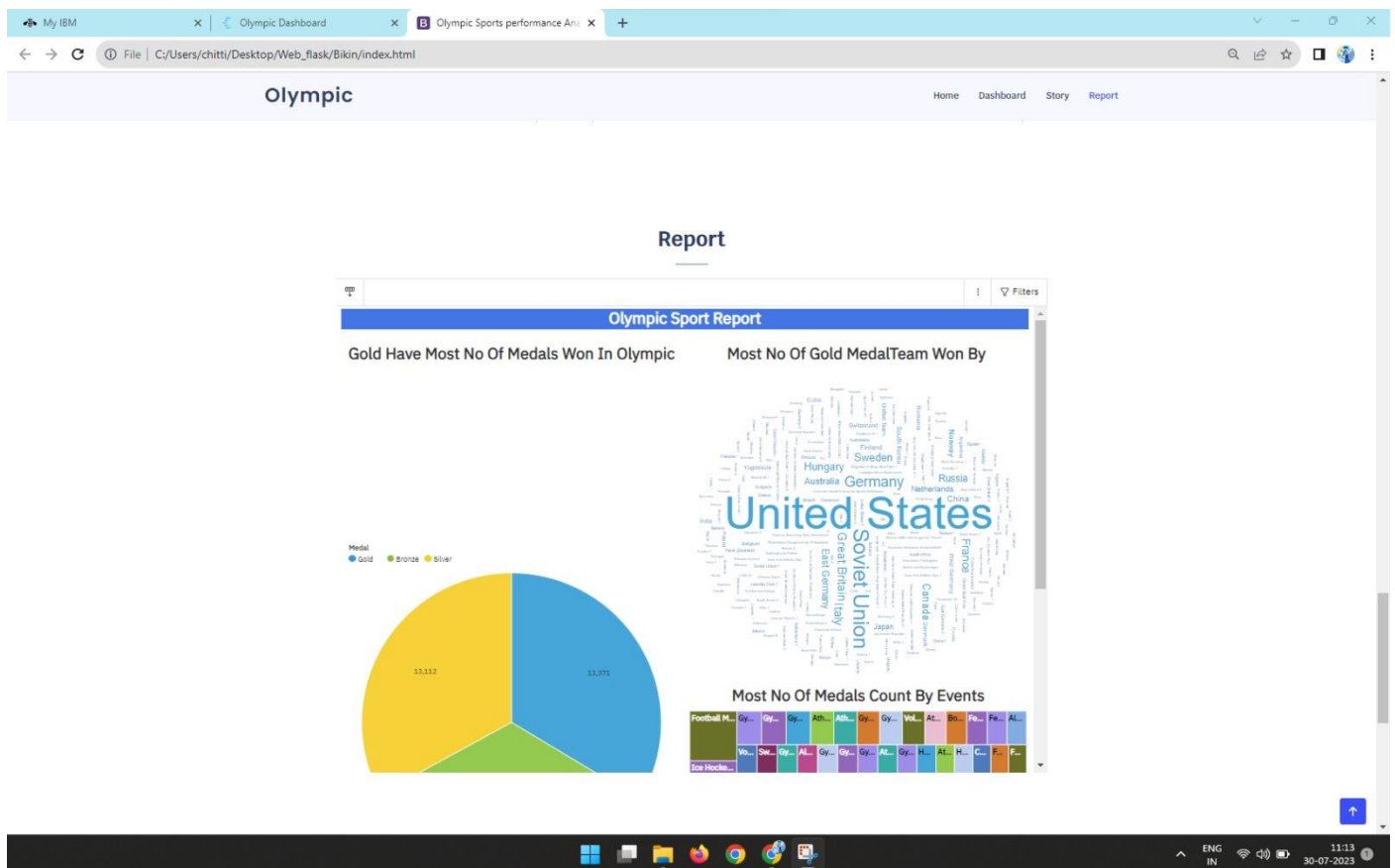
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WEB INTEGRATION







Advantages

- Improved overall fitness level. ...
- Helps in reducing stress. ...
- Improved confidence level. ...
- Helps in building new connections. ...
- Improved problem solving and communication skills. ...
- Improves sleep quality & relaxation. ...
- Helps in dealing with conflicts. ...
- Might cause serious injury

Disadvantages

- Might cause serious injury. The possibility of injury is probably one of the most evident disadvantage of participating in sports. ...
- Sports can be very exhausting. ...
- Sports can be expensive. ...
- Sports can be time-consuming. ...
- Excessive sports can cause an issue. ...
- Poor sportsmanship. ...
- Unhappy parents and coaches.

APPLICATIONS:

As well as sports themselves being dropped from the Olympics, there are many more events or sporting disciplines that have been removed from sports that are still on the program, such as the swimming events of plunge for distance and underwater swimming, the track and field events of the standing highjump and tug-of-war, and the shooting events of running deer and dueling pistol. There are many more, you can have a look at the complete list of all discontinued sports, or my list of some the more unusual sports.

Conclusion

This paper aimed to highlight the key challenges associated with talent identification and development and propose multiple [possible] solutions that researchers and practitioners could consider for optimizing TIDS. The challenges included (1) Understanding what we are looking for (i.e., what is talent; understanding sport performance and predicting the future), (2) Determining the most effective ways to identify, select and develop talent (i.e., identifying talent; understanding biological-psychological-social development; resourcing the system) and (3) Understanding the health considerations of TIDS (are TIDS healthy?; is early specialisztion necessary).

FUTURE SCOPE:

- Olympic skateboarding. Skateboarding is one of the new Olympic sports of Paris 2524. ...
- Olympic sport climbing. The other relatively new Olympic sport is climbing. ...
- The unique sport: Olympic surfing. The Olympics will be held in Paris, but what about Olympic surfing? ...
- Traveling to the Olympic Games in Paris.