

DATA ANALYSIS

Project Title: Data Drive Insights on Olympic Sports Participation and Performance.

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PROJECT DESCRIPTION

The modern Olympic Games or Olympics are 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 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.

The evolution of the Olympic Movement during the 20th and 21st centuries has resulted in several changes to the Olympic Games. Some of these adjustments include the creation of the Winter Olympic Games for snow and ice sports, the Paralympic Games for athletes with a disability, the Youth Olympic Games for athletes aged 14 to 18, the five Continental games (Pan American, African, Asian, European, and Pacific), and the World Games for sports that are not contested in the Olympic Games. The Deaflympics and Special Olympics are also endorsed by the IOC. The IOC has had to adapt to a variety of economic, political, and technological advancements. As a result, the Olympics has shifted away from pure amateurism, as envisioned by Coubertin, to allowing participation of professional athletes. The growing importance of mass media created the issue of corporate sponsorship and commercialisation of the Games. World wars led to the cancellation of the 1916, 1940, and 1944 Games. Large boycotts during the Cold War limited participation in the 1980 and 1984 Games. The latter, however, attracted 140 National Olympic Committees, which was a record at the time.

The total number of events in the Olympics is 339 in 33 sports. And for every event there are winners. Therefore various data is generated. So, by using Cognos Analytics we will analyze this data and find the insights.

Key Words; Python, Exploratory data Analysis, IBM DB2, Databases

INTRODUCTION

Olympics is considered as most important event worldwide, which provides common platform to players from various nations to show their talents. Olympics has 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 analyse every four years. The goal of this paper is to analyze performance and participation of nations in Olympics from 1896 to 2012. 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 performance of each sports with other can be done. The field 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 The Olympic Games are considered the world's foremost sports competition with more than 200 teams, representing sovereign states and territories, participating.

THE USE OF THE OLYMPICS SPORTS PARTICIPATION AND PERFORMANCE

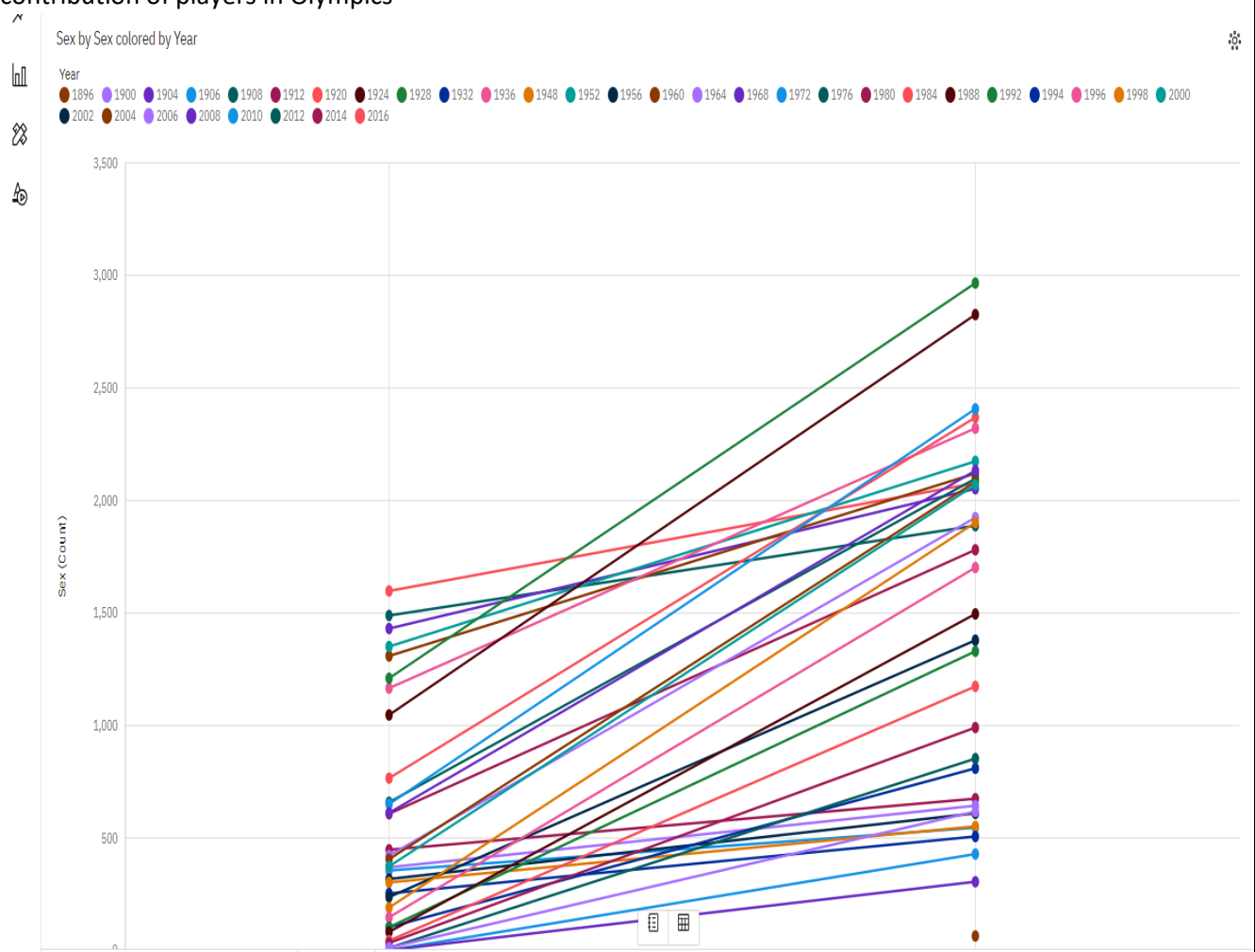
Every two years, the Olympics and its media exposure provide athletes with the chance to attain national and sometimes international fame. The Games also provide an opportunity for the host city and country to showcase themselves to the world.

ANALYSIS AND VISUALIZATION

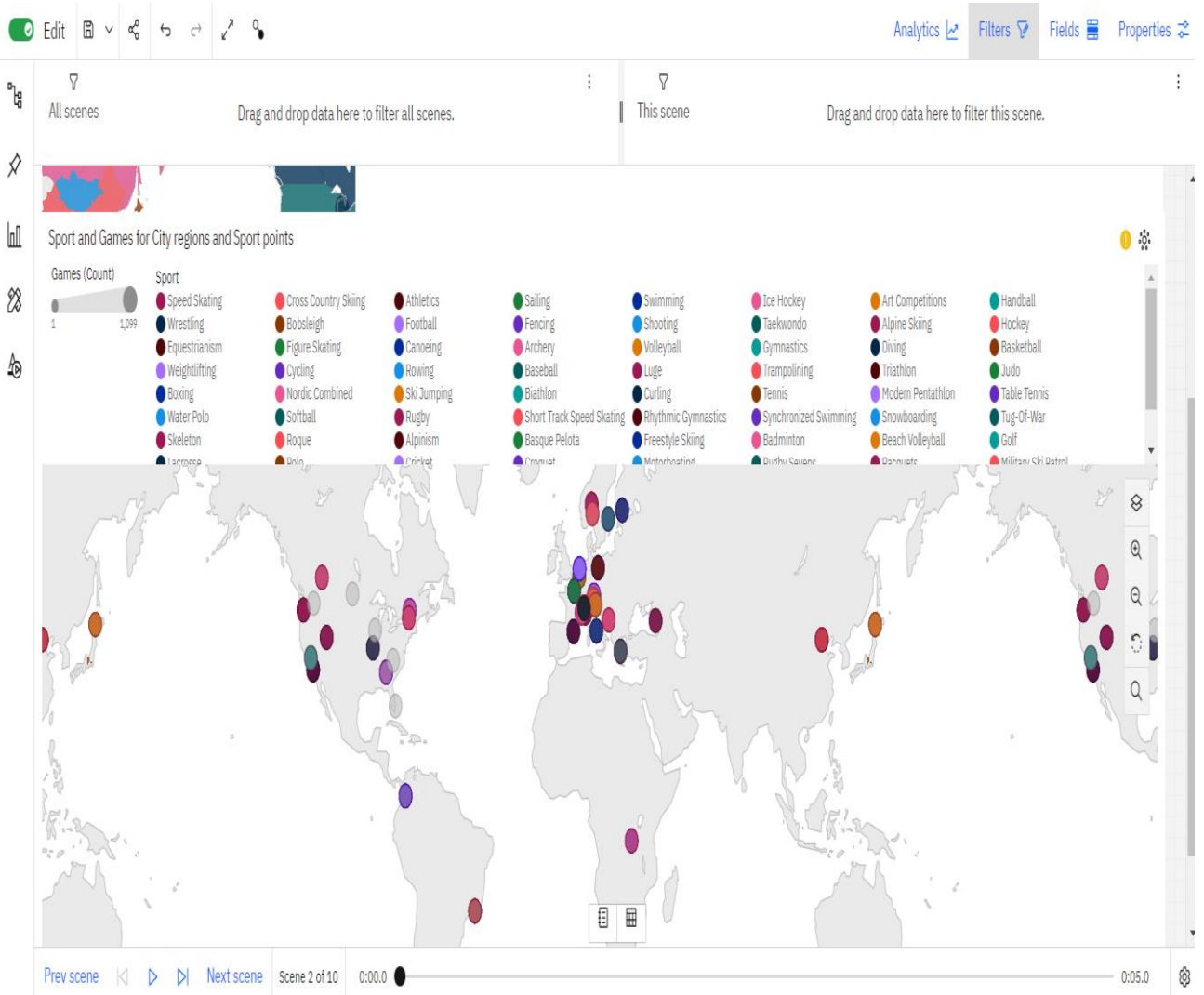
The Summer Olympics dataset with data collections from 1896 to 2016 has been analysed. This dataset contains around 70,000 rows and 11 columns. The fields include ID, Name, Sex, Age, Height, Weight, Team, NOC, Games, Year, Season, City, Sport, Event, Medal Identifying Contribution of Men And Women Participants In Olympics (1896-2016) The total number of men and women participants in Olympics from 1896-2016 is analysed and the ratio between men and women participants can be obtained. The analysis represents contribution of men is higher than women among all over the world.

Identifying of Men and Women by Year Participants in Olympics (1896-2016)

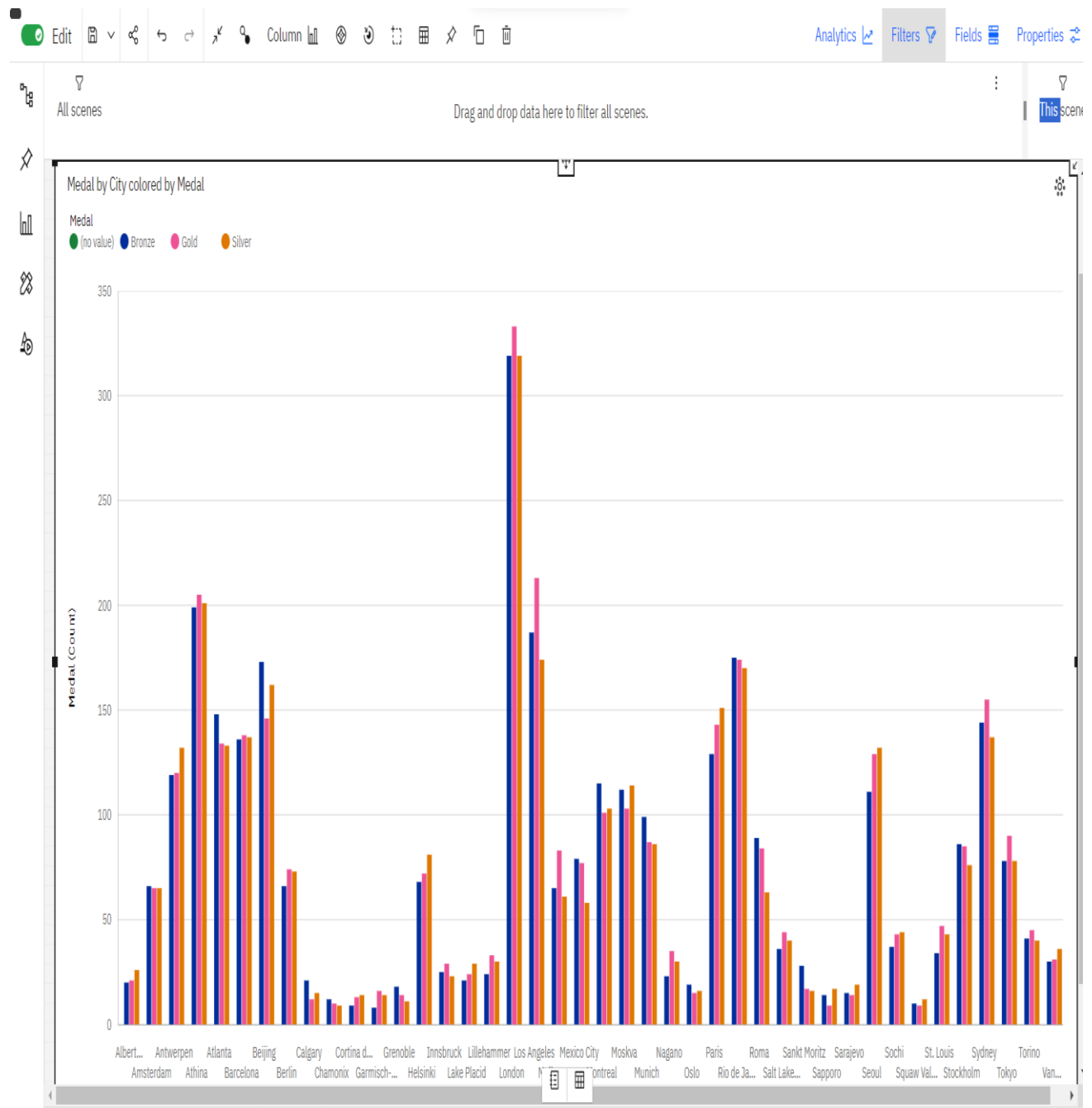
The total number of men and women by Year participants in Olympics from 1896-2016 is analysed and the ratio between men and women participants can be obtained. The analysis represents contribution of men is higher than women among all over the world. The figure 1 shows gender wise contribution of players in Olympics



Identifying of Sport And Games For City Regions And Sports points Participants In Olympics (1896-2016)



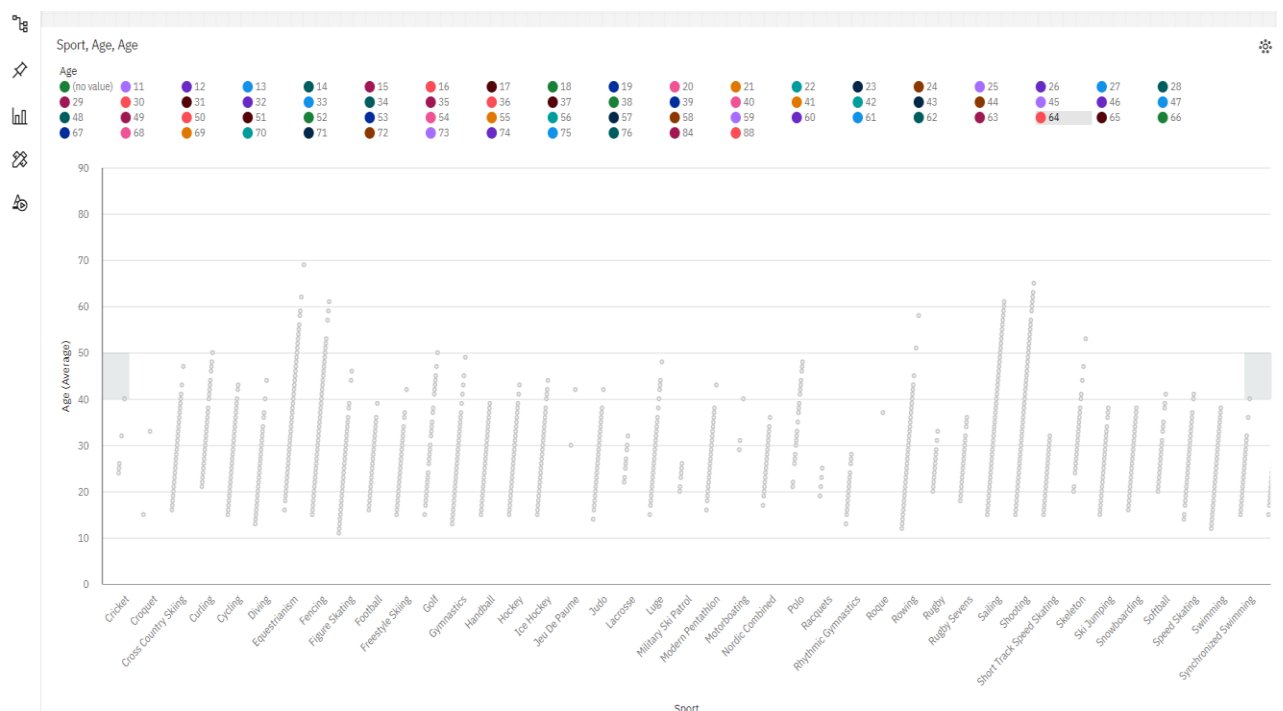
Identifying Medal by City Colour by Medal Participants In Olympics (1896-2016)



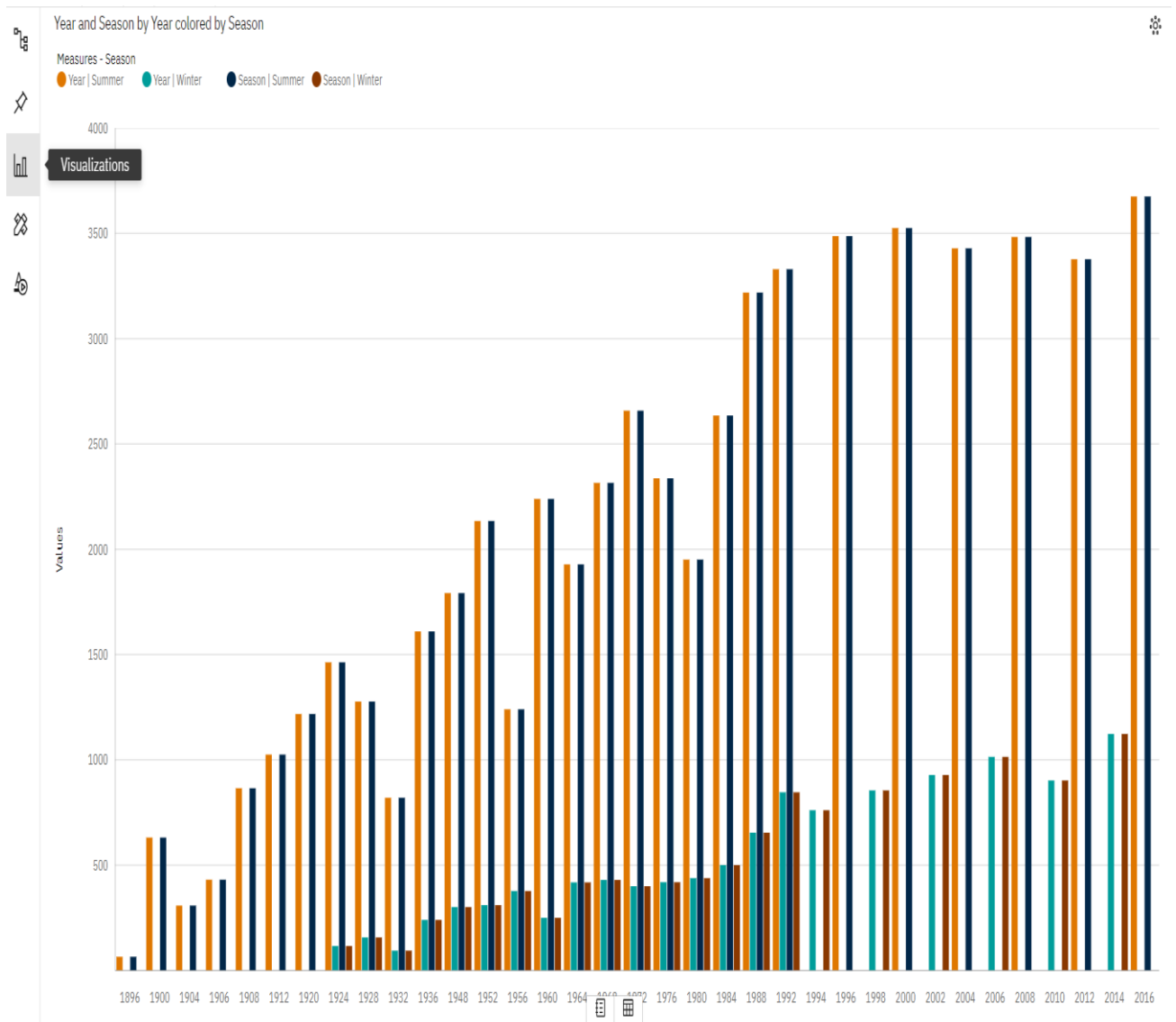
Identifying Medal by Sport Participants In Olympics (1896-2016)



Identifying Sport by Age Participants In Olympics



Identifying Year Season by Year Coloured by Season in Olympic (1896-2016)



Identifying Medal, City, Games and Sports Participants In Olympics (1896-2016)

Medal	City	Games	Sport
(no value)	Athina	2004 Summer	Tennis
(no value)	Athina	2004 Summer	Trampoline
(no value)	Athina	2004 Summer	Triathlon
(no value)	Athina	2004 Summer	Volleyball
(no value)	Athina	2004 Summer	Water Polo
(no value)	Athina	2004 Summer	Weightlifting
(no value)	Athina	2004 Summer	Wrestling
(no value)	Atlanta	1996 Summer	Archery
(no value)	Atlanta	1996 Summer	Athletics
(no value)	Atlanta	1996 Summer	Badminton
(no value)	Atlanta	1996 Summer	Baseball
(no value)	Atlanta	1996 Summer	Basketball
(no value)	Atlanta	1996 Summer	Beach Volleyball
(no value)	Atlanta	1996 Summer	Boxing
(no value)	Atlanta	1996 Summer	Canoeing
(no value)	Atlanta	1996 Summer	Cycling
(no value)	Atlanta	1996 Summer	Diving
(no value)	Atlanta	1996 Summer	Equestrianism
(no value)	Atlanta	1996 Summer	Fencing
(no value)	Atlanta	1996 Summer	Football
(no value)	Atlanta	1996 Summer	Gymnastics

Excellence of a country in Olympics can be viewed by number of medals won by a country. This analysis identifies the performance a particular country in Olympics from 1896 to 2016. This can be processed by calculating the total medals won by particular country in particular year from 1992 to 2016. Data visualization can be carried out to represent the result of particular country. The results are (i) Performance of India was gradually increasing from 1992 with no medals, 1996 with 1 medal and finally in 2012 with 6 medals. (ii) Performance of USA was found like zigzag graph from 1992 with 220 medals, 1996 with 260 medals, suddenly performance has decreased in 2000 with 240 medals, increased gradually from 2004, contributed best in 2008 with 350 medals. (iii) France's Performance was gradually increasing from 1996 to 2008 with medals within range of 40 and has performed well in 2012 with 80 medals. (iv) Performance of Australia was better during 1992 Olympics with 60 medals and there was a sudden increase in its performance with almost 200 medals over the period of 2000 and there has been gradual decrease in performance from 2004 to 2012. (v) Initially, performance of Japan was not so good, but over the period of 2000 and 2004 there was a drastic increase in it and gained 100 medals which was higher than the rest. The performance of a country is shown.

Conclusion: The exploratory data analysis on Olympic dataset provides statistical and visual representation of performance of nations, players in Olympics from the year 1896 to 2016. From the above analyses, it is useful to identify the country that needs more skills, the field of sports in which players are performing well and players who need practice to enhance themselves upcoming Olympics. The contribution of women in Olympics have to be encouraged. Country which has least performance have to find the steps to improve their performance

