

SQL FOR DATA SCIENCE CAPSTONE PROJECT

Assignment 4: Week 4/ Milestone 4: Presenting Your Findings (Storytelling)

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Client: Sports Stats

Data set: Olympics Dataset

Date: April 2022

Objective: Learn about the Olympic Games result and get evidences on the gender, sex and years to understand the Olympics games

Audiences: Journalist, coaches, Government(countries) who are looking to understand the Olympics games outcomes. Also coaches and the government can improve their teams by looking at the games, year medals won in different events

Questions:

- 1) What has been the demographics of the Olympics games: which countries, age group, sex, and season has more participants and the highest number of medals.
- 2) Which country has been the most participant in the Olympics and which country has won the highest number of medals?
- 3) Which sport and in which of the season has the highest number of medals.
- 4) How does the host country get to affect the medals won in the Olympics?

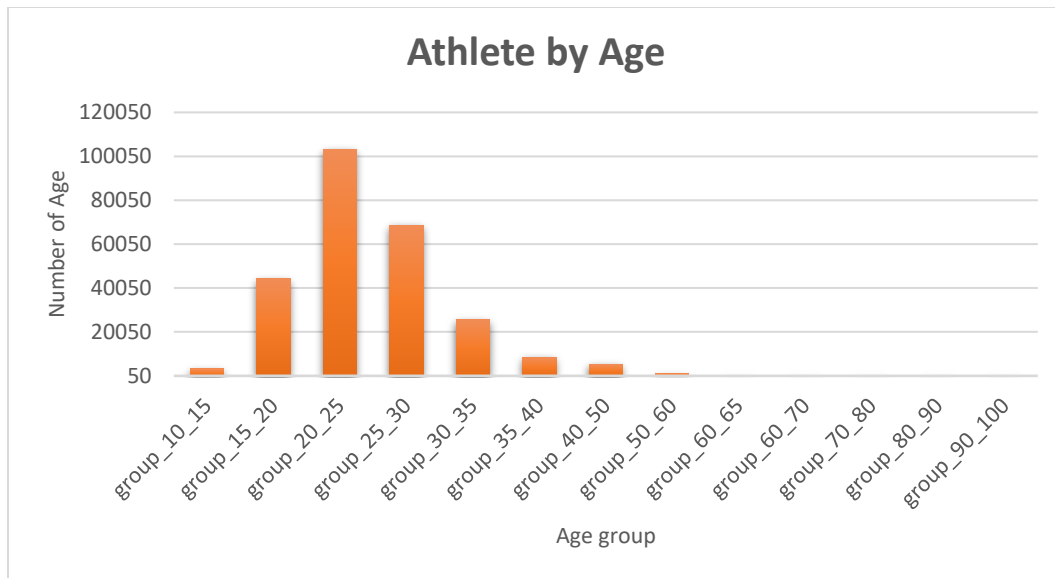
1) Which age group, gender (sex) and countries have the more participants and better results

--The age group 20-25 has the highest represented participant and the least represented is group 90-100

--The Average Age represented = 25.5

--The minimum Age represented = 10 years old

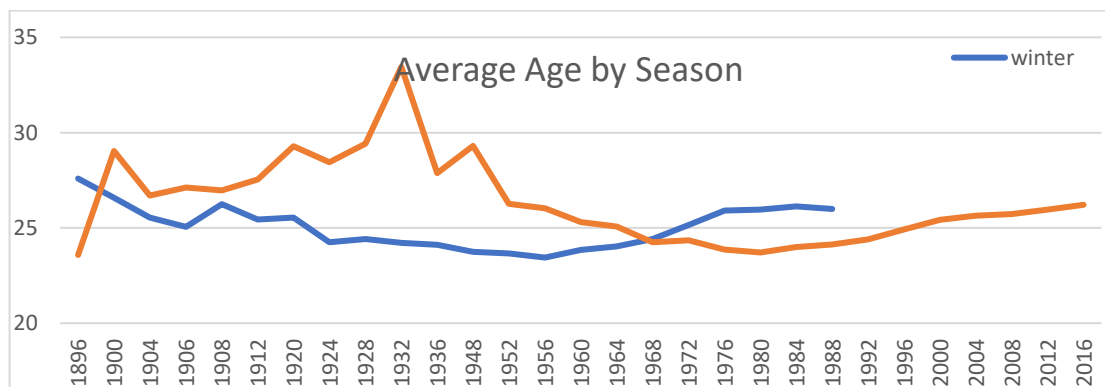
--the maximum age represented = 97 years old



2) Average age by season over the years.

The highest number of age participant was recorded in 1928 with average age of 33.5 summer but the same average number age recorded both in winter and summer was in the year 1968

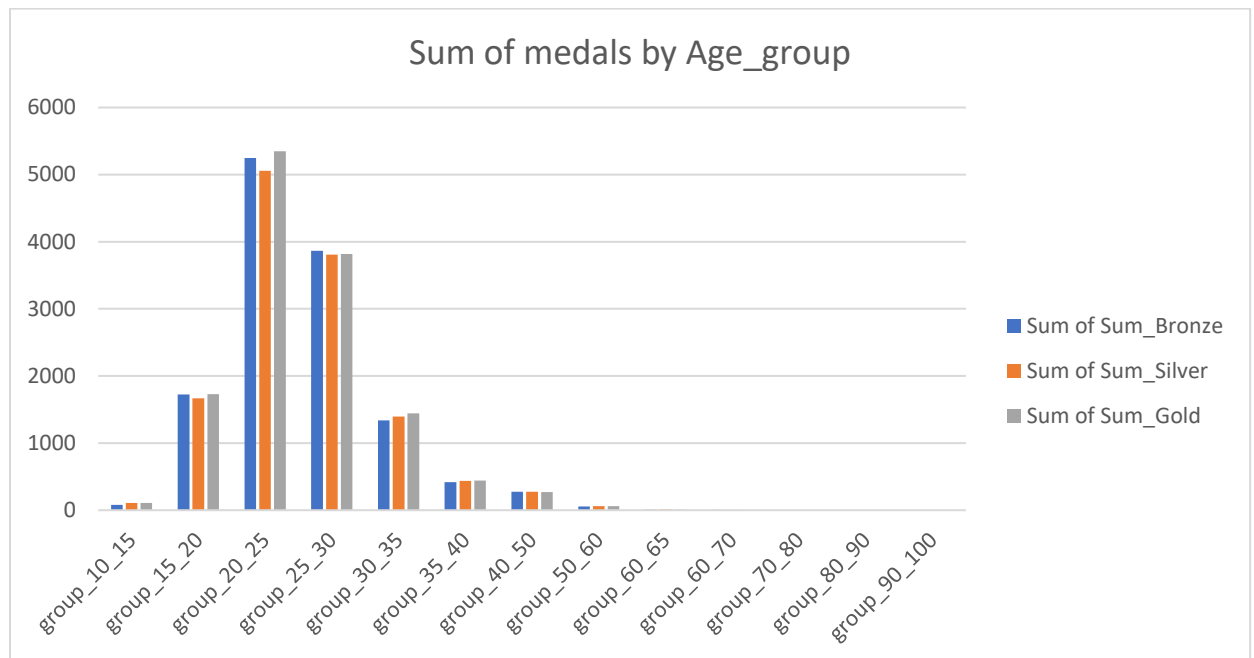
- The highest age participants were in 1928 summer
- with an average age of 33.5 and for winter the highest age represented has
- an average of 27.6 in year 1896.
- in the year 1968 both the winter and summer 1968 has relative the same average age of 24
- Using the T test, the P value is given as 0.01834 this means that the p value < 0.05
- and this means that both the summer games and the winter games are statistically significant.



3) Medals by Age group

- The age group between 20-25 won more medals (gold =5348, Silver = 5.005,
- Bronze = 5.247)

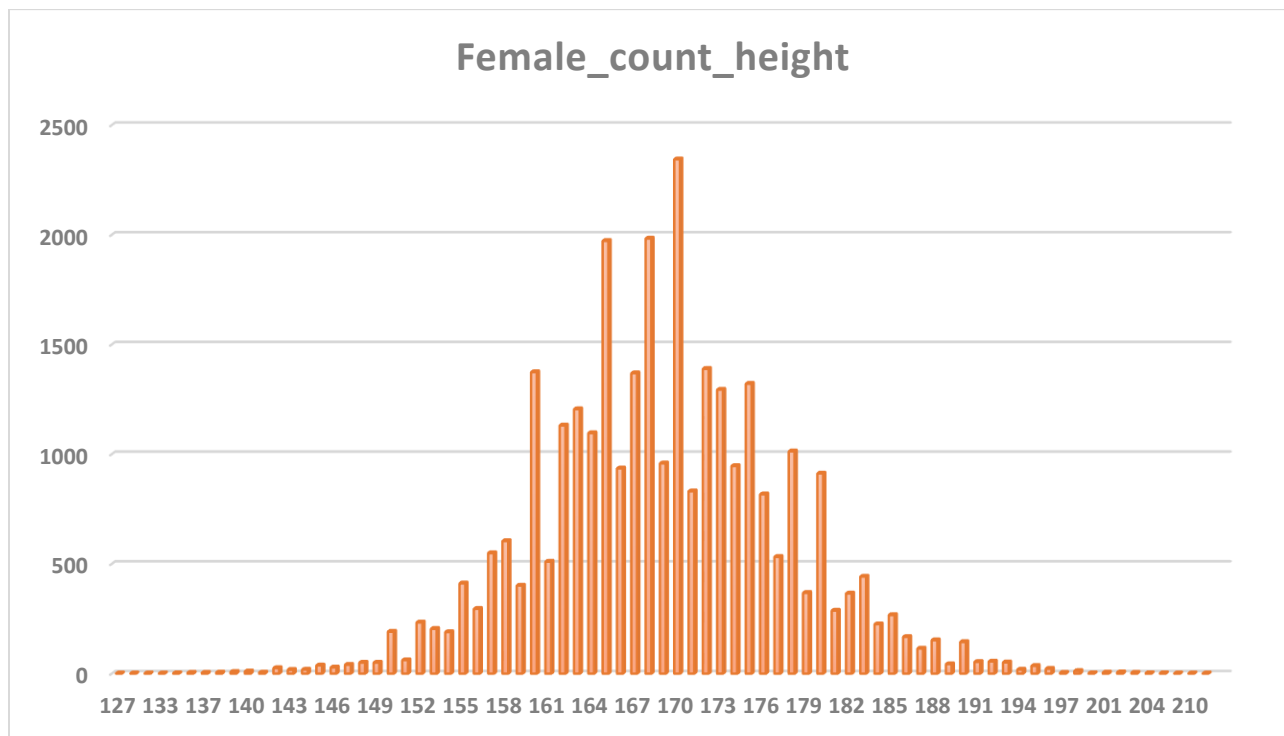
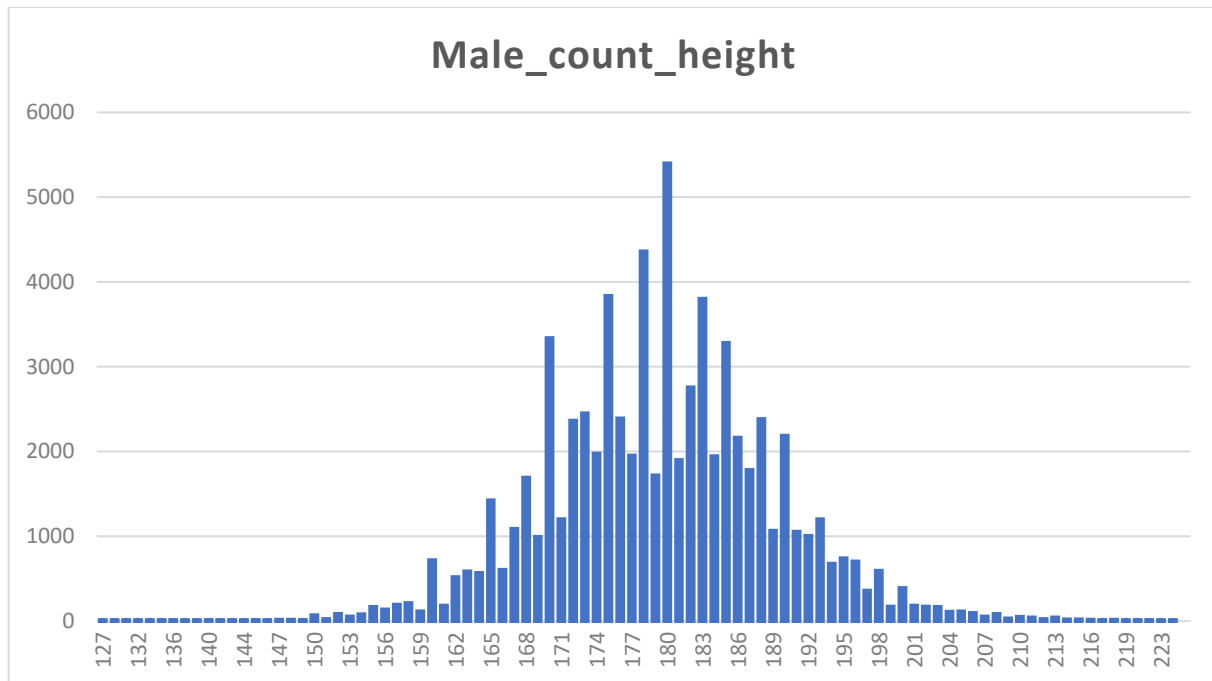
--the second age group that won more medal is group 25 - 30 (gold = 3817, Silver = 3806 and Bronze = 3865)



4) Height by Count the number of heights

Male - Average: 179, Minimum: 127, Maximum 226, Standard Deviation 9,5.

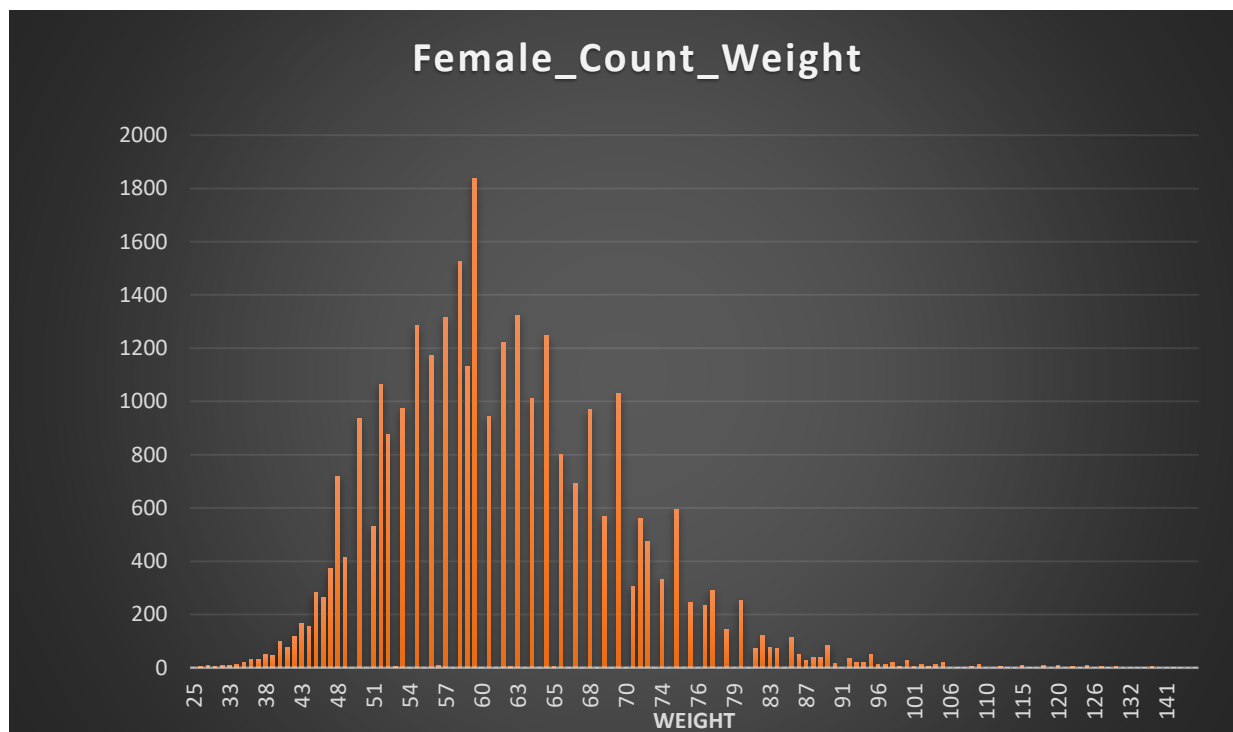
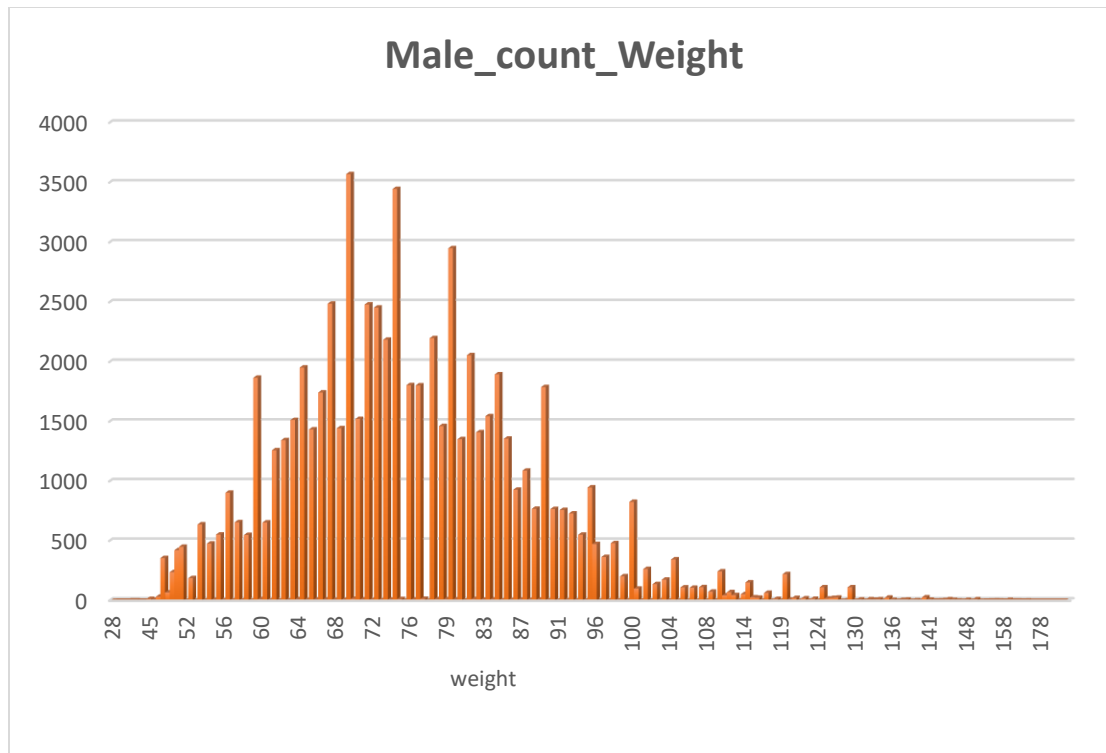
Female - Average: 169, Minimum: 127, Maximum 213, Standard Deviation 8,5.



5) Weight by Count the number of Weights

Male - Average: 76, Minimum: 28, Maximum: 214, Standard Deviation: 13,7.

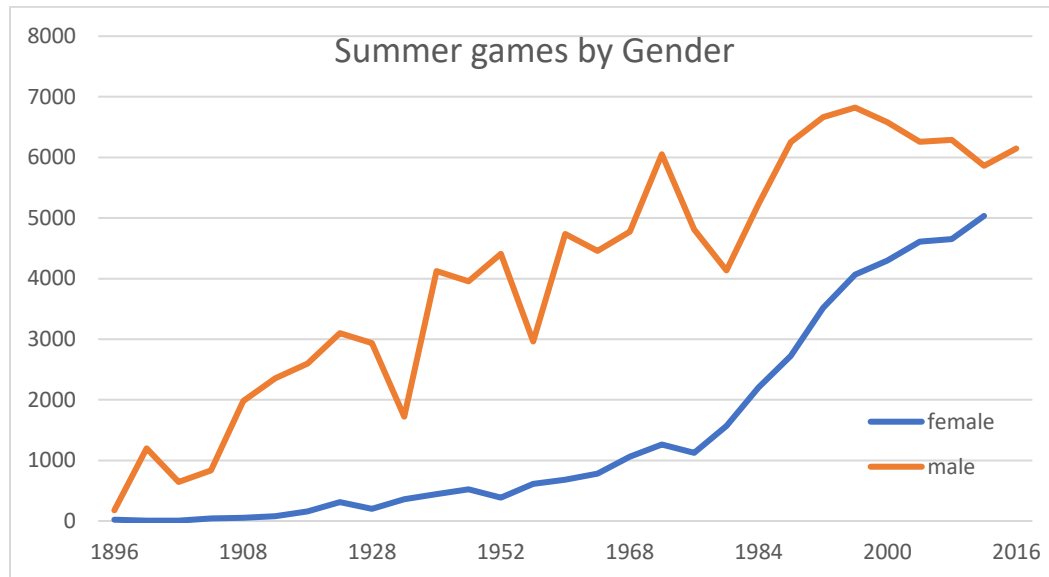
Female - Average: 61; Minimum: 25, Maximum: 167, Standard Deviation: 10,4.



6) Summer Games by gender over the years

--The number of male participants in the Olympics has always been greater than the female

--As in the year 1904 only 6 females participated in the Olympics compared to 644 Male who participated in that same year
--In the year 1976 the number of female participants greatly increased up to 1260 but can't be compared to the number of males which was 4 times the female participants.

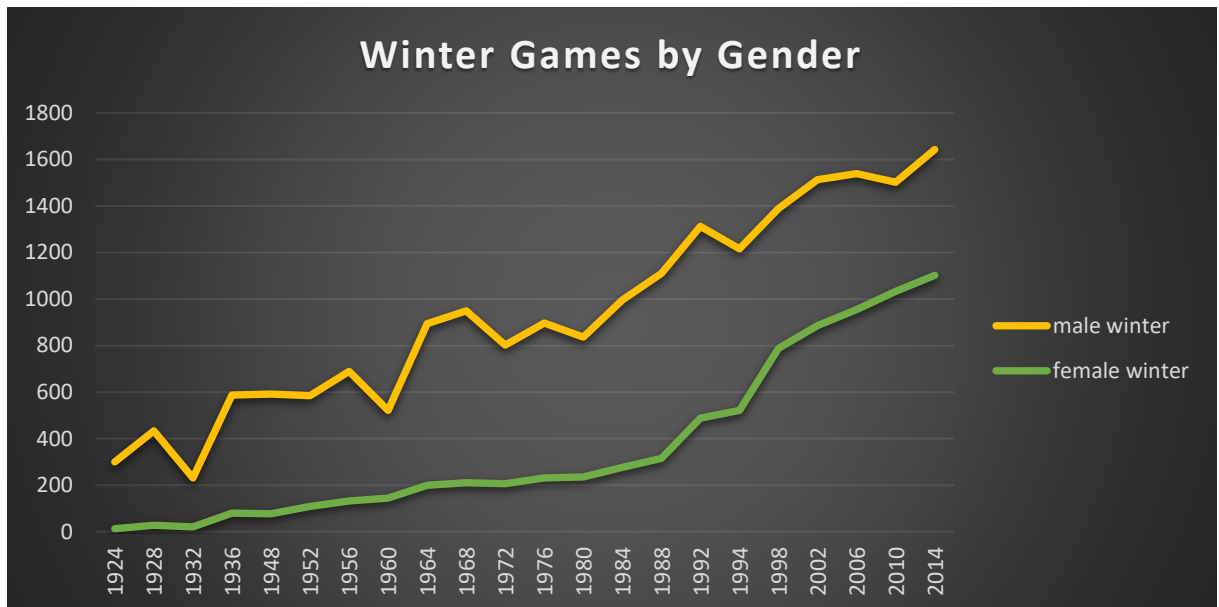


7) Winter Games By gender over the years

--The number of female participants is relatively low compared to the male participants,

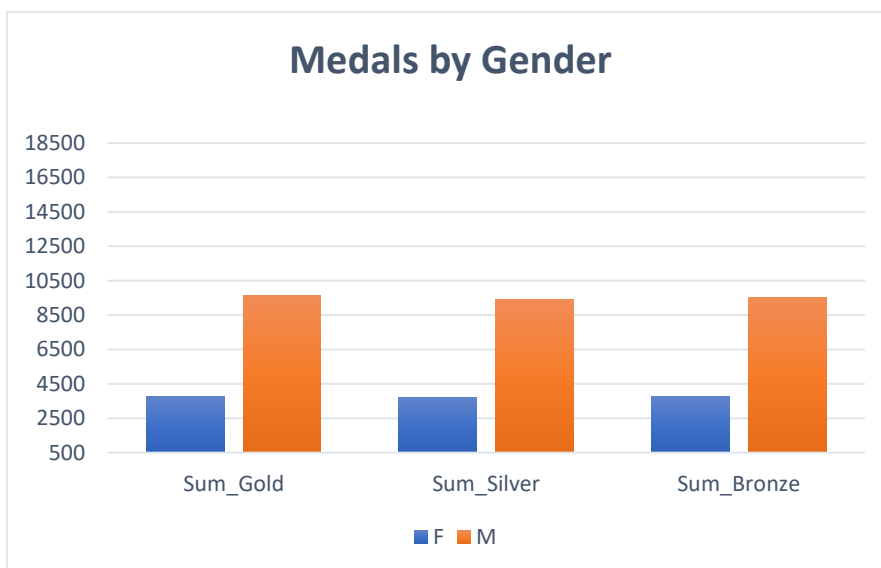
--the year 2014 recorded the highest number of participants which is 1102 while the male 1643 participants

--generally, the winter has lesser participants compared to the summer



8) Medals by Gender.

-The number of medals won by the male is higher than the number of female because there is greater number of participants than the female.



9) Top 10 countries with the highest participants and medals

--In USA 9683 participated in the Olympics and 5637 has won the medal, the number of participants has nothing to do with the number of medals to be won example France has the number of participants of 6170 and won about 1767 medals while Italy with

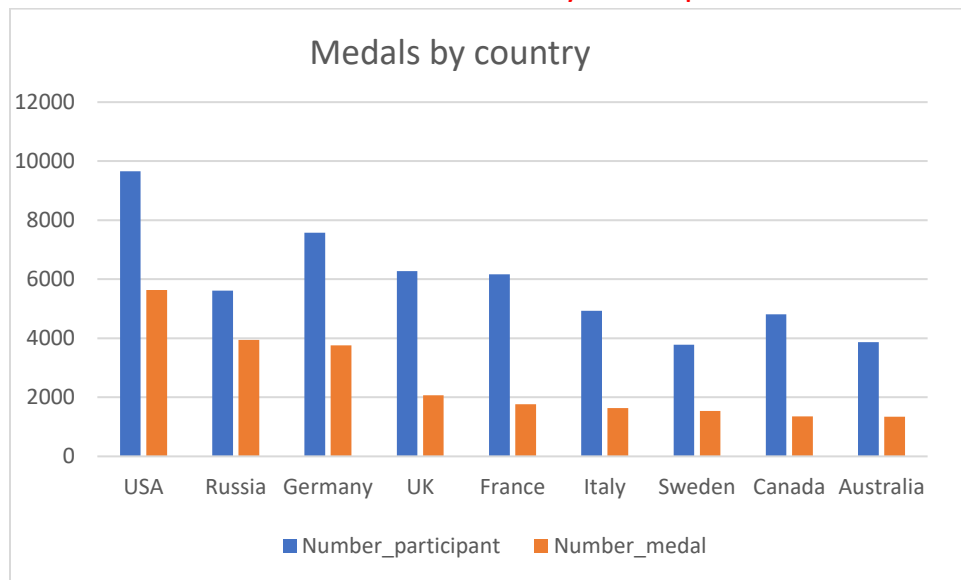
--the number of participants of 3787 won 1637 medals.

While in percentage ratio;70% of Russians participant has won a medal

58% of USA participants has won a medal

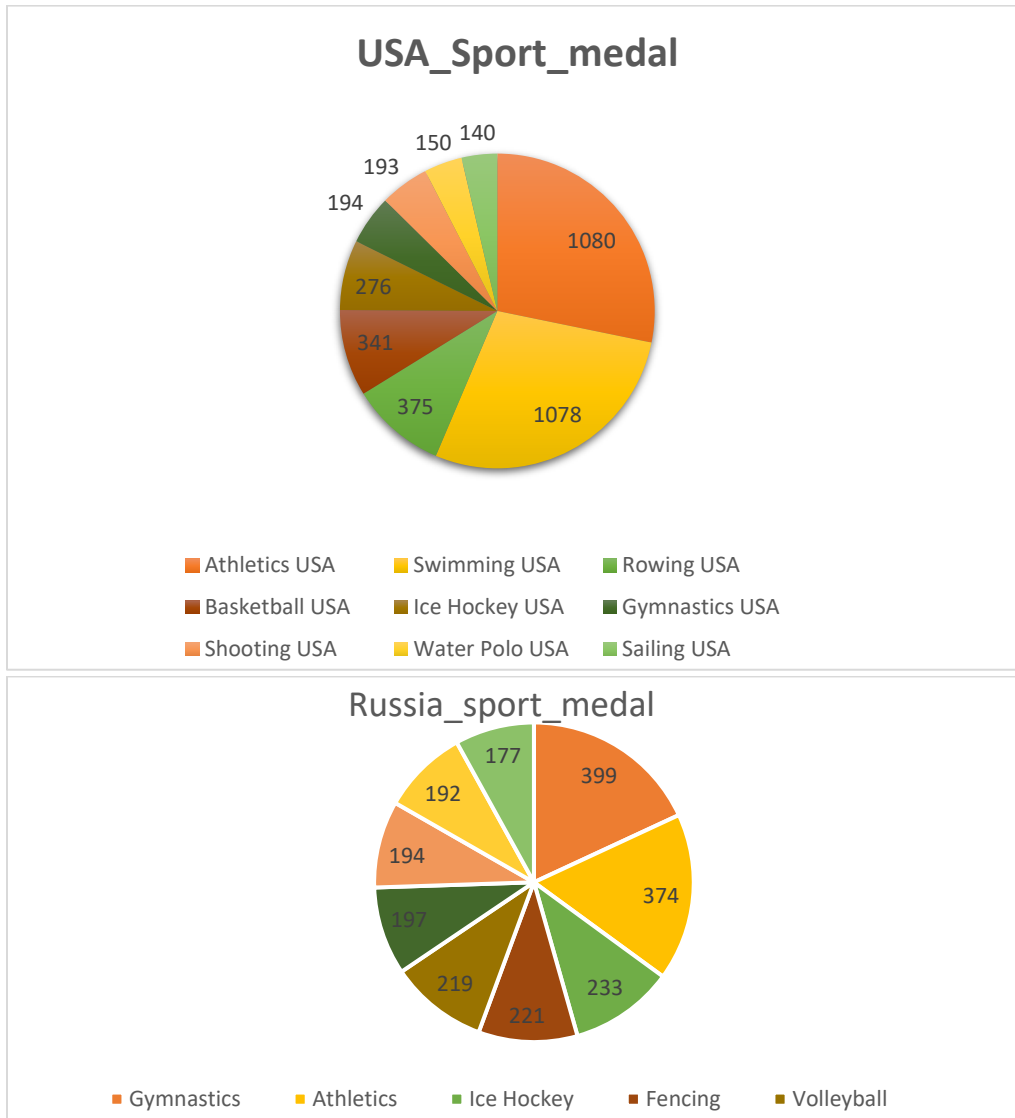
29% of France participant has won a medal

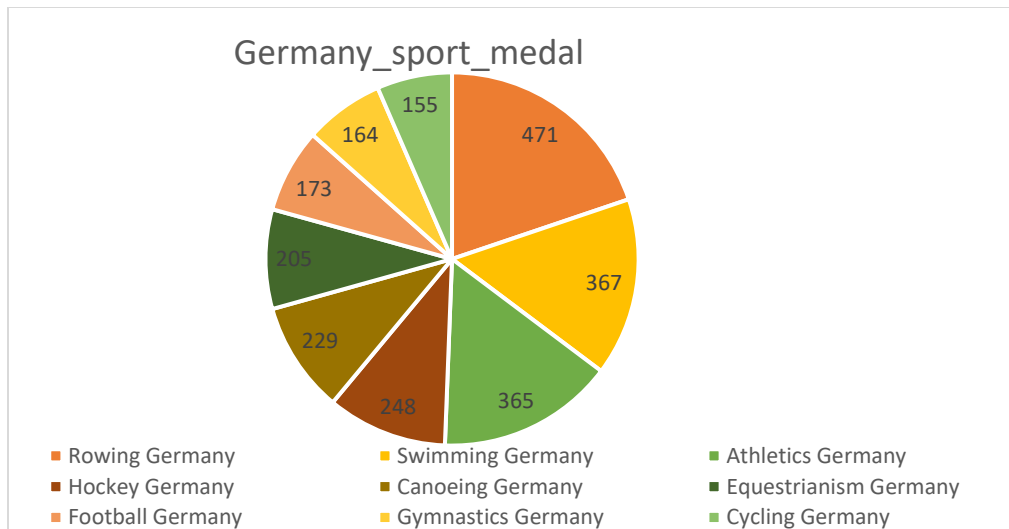
33% of Italy Participants has won a medal



10) Top three countries that are leading in sports

--In USA (Athletics), Russia(gymnastics), and Germany(rowing) are the leading sport in each country that has the highest number of medals in each sport. And the 3 sports are among the top 10 sports with the highest medal.

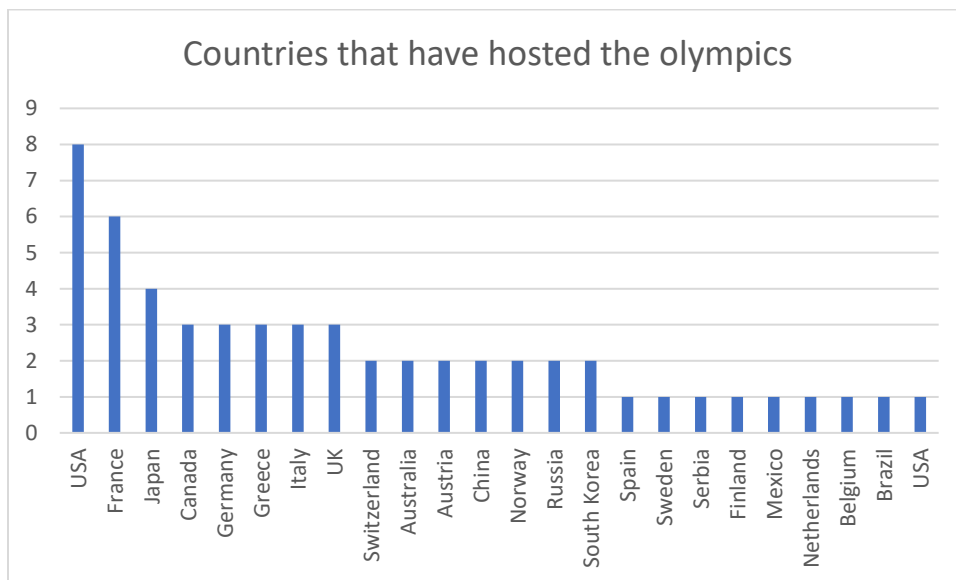




The Host effect :

10) How many medals was won by the host countries in the year they hosted.

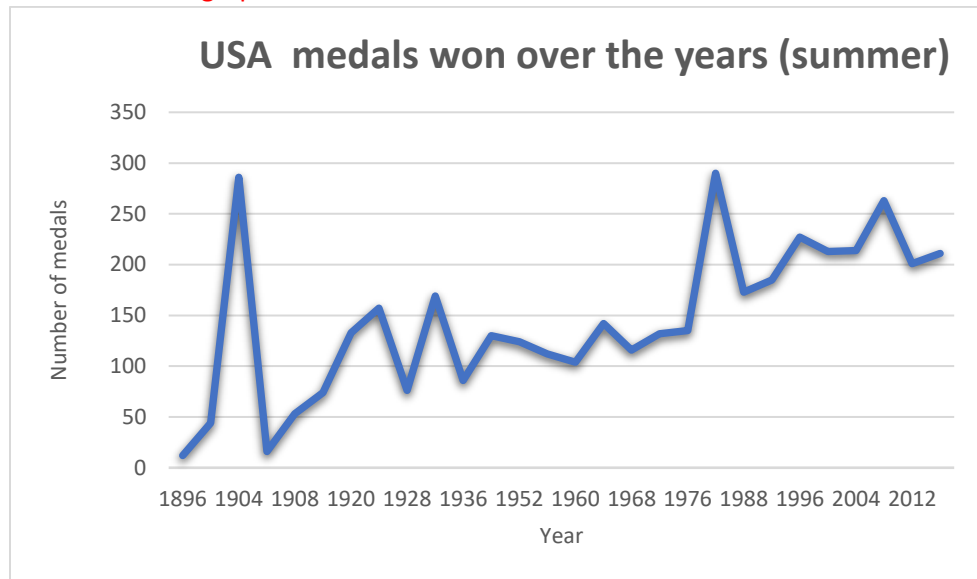
--the USA has hosted the Olympics for 8 times since the inception of the Olympics
 --and invariably they also have the highest number of medals won in the Olympics, this might be due to the fact called the host effect, where favorable crowd cheers, vegetation, ambiance, weather and even familiarity with the field.



11) USA Medals over the years (summer)

Medals won by each country over the years, in the years where USA has the highest number of medals has been in the years, they hosted the Olympics.

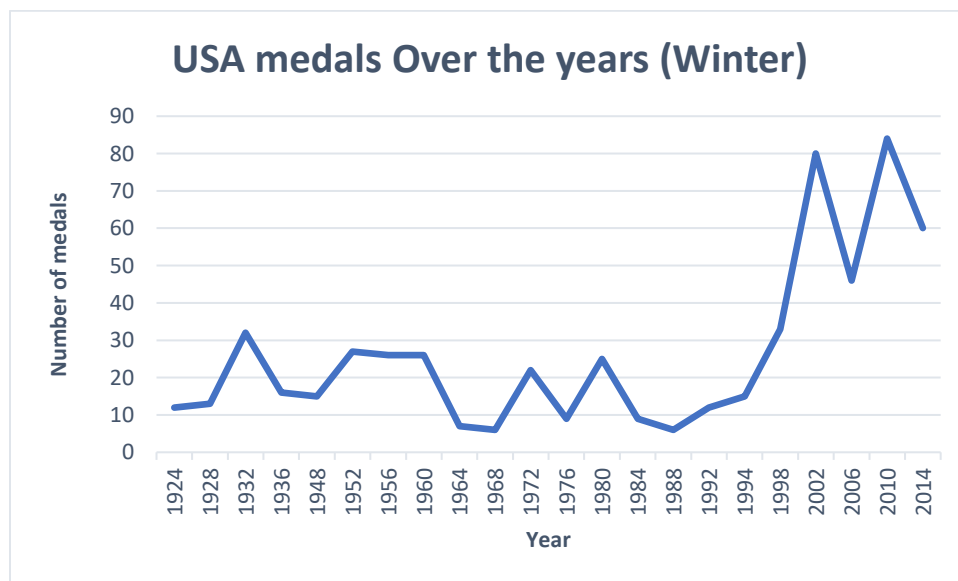
--As seen in the graph there has been an host effect in the USA summer.



12) USA Medals over the years (Winter)

--As seen before there seems to be a host effect in the USA. The country organized 4 Winter Olympics (1932, 1960, 1980 and 2002).

--In these years there has been an increase in the number of medals won by the country.



Conclusions Of the demographics of Olympics

- 1) The age group 20-25 has the highest represented participant and the least represented is group 90-100. The highest number of age participant was recorded in 1928 with average age of 33.5 summer but the same average number age recorded both in winter and summer was in the year 1968.
- 2) The age group between 20-25 won more medals (gold = 5348, Silver = 5.005, Bronze = 5.247) which works for both male and female.
- 3) The number of male participants in the Olympics has always been greater than the female. As seen in the year 1904 only 6 females participated in the Olympics compared to 644 Male who participated in that same year. In the year 1976 the number of female participants greatly increased up to 1260 but can't be compared to the number of males which was 4 times the female participants.
- 4) The percentage ratio of country, Number of participant and medal won
 - 70% of Russians participant has won a medal
 - 58% of USA participants has won a medal
 - 29% of France participants has won a medal
 - 33% of Italy Participants has won a medal

Regularities in Olympics

- 1) USA and the Russia are the countries that has more medals won in the Olympics.
- 2) In USA (Athletics), Russia (gymnastics), and Germany (rowing) are the leading sport in each country that has the highest number of medals in each sport. And the 3 sports are among the top 10 sports with the highest medal.
- 3) In terms of Winter sports, the USA and Russia have Ice Hockey in the top 5 and Germany does not have any sport.

The Host Effect of the Olympics

- 1) The countries that have hosted the Olympics tends to win the highest medals in that same year.
- 2) The effect of the above can be due to the crowd familiarity, qualification criteria and home field advantage.

