

# Data Analysis

## SQL Project

OLYMPIC  
GAMES



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### Project Overview:

The Olympic Data Analysis project aims to explore and analyse historical data related to the Olympic Games.

Olympic Games data, from Athens 1896 to Rio 2016.



Athletes\_Cleaned.csv

The file  athlete events contain 271116 rows and 15 columns

#### The columns are:

1. ID - Unique number
2. Name - Athlete's Name
3. Sex - M or F
4. Age - int
5. Height - in cm
6. Weight - in kg
7. Team - Team name
8. NOC - National Olympic Committee -code
9. Games - Game name
10. Year - Int
11. Season - Summer or Winter
12. City - City name
13. Sport - Sport name
14. Event - Event name
15. Medal - Medal name



Now we will start our analysis:

1. Show how many medals counts present for entire data

**Query:**

```
select Medal ,count(MEDAL) as Medal_count from olympics  
group by medal  
order by Medal_count desc;
```

**Result:**

Medal	Medal_count
NoMedal	231333
Gold	13372
Bronze	13295
Silver	13116

```
select count(MEDAL) as Total_Medal from olympics;
```

Medal_count
271116



2. Show count of unique sports present in Olympics

Query:

```
select count(DISTINCT SPORT) as "UNIQUE_SPORTS" from olympics;
```

Result:

UNIQUE_SPORTS
66



3. Show how many different medals won by team India

Query:

```
• select TEAM ,MEDAL, count( MEDAL) as Medals_count from olympics  
where team = 'India' AND MEDAL<> 'NOMEDAL'  
group by medal ;
```

Result:

TEAM	MEDAL	Medals_count
India	Gold	138
India	Silver	19
India	Bronze	40



4. Show event wise medals won by India show from highest to lowest medals won in order

**Query:**

```
select Team, Event, count(medal) as Highlow FROM olympics
where Team = 'INDIA' AND MEDAL <> 'NOMEDAL'
group by Event
ORDER BY HIGHLOW DESC;
```

**Result:**

Team	Event	Medal_count
India	Hockey Mens Hockey	173
India	Alpinism Mixed Alpinism	7
India	Shooting Mens Air Rifle 10 metres	2
India	Wrestling Mens Welterweight Freestyle	2
India	Badminton Womens Singles	2
India	Wrestling Mens Lightweight Freestyle	1
India	Wrestling Mens Bantamweight Freestyle	1
India	Boxing Womens Flyweight	1
India	Shooting Mens RapidFire Pistol 25 metres	1
India	Wrestling Womens Lightweight Freestyle	1
India	Weightlifting Womens LightHeavyweight	1
India	Tennis Mens Singles	1
India	Athletics Mens 200 metres	1
India	Athletics Mens 200 metres Hurdles	1
India	Shooting Mens Double Trap	1
India	Boxing Mens Middleweight	1



## 5. Show event wise medals won by India in order of year

### Query:

```
select Team, Year as order_year ,Event,medal , count(medal) as won_medal FROM olympics
where Team ='INDIA' AND MEDAL<> 'NOMEDAL'
group by Event ,year,medal
ORDER BY order_year DESC;
```

### Result:

Team	Year	Event	Medal	Won_medal
India	1900	Athletics Mens 200 metres	Silver	1
India	1900	Athletics Mens 200 metres Hurdles	Silver	1
India	1924	Alpinism Mixed Alpinism	Gold	7
India	1928	Hockey Mens Hockey	Gold	14
India	1932	Hockey Mens Hockey	Gold	15
India	1936	Hockey Mens Hockey	Gold	19
India	1948	Hockey Mens Hockey	Gold	20
India	1952	Hockey Mens Hockey	Gold	14
India	1952	Wrestling Mens Bantamweight Freestyle	Bronze	1
India	1956	Hockey Mens Hockey	Gold	17
India	1960	Hockey Mens Hockey	Silver	13
India	1964	Hockey Mens Hockey	Gold	15
India	1968	Hockey Mens Hockey	Bronze	16
India	1972	Hockey Mens Hockey	Bronze	14
India	1980	Hockey Mens Hockey	Gold	16
India	1996	Tennis Mens Singles	Bronze	1
India	2000	Weightlifting Womens LightHeavyweight	Bronze	1
India	2004	Shooting Mens Double Trap	Silver	1
India	2008	Shooting Mens Air Rifle 10 metres	Gold	1
India	2008	Wrestling Mens Welterweight Freestyle	Bronze	1
India	2008	Boxing Mens Middleweight	Bronze	1
India	2012	Wrestling Mens Lightweight Freestyle	Bronze	1
India	2012	Boxing Womens Flyweight	Bronze	1
India	2012	Wrestling Mens Welterweight Freestyle	Silver	1
India	2012	Shooting Mens RapidFire Pistol 25 metres	Silver	1
India	2012	Shooting Mens Air Rifle 10 metres	Bronze	1
India	2012	Badminton Womens Singles	Bronze	1
India	2016	Wrestling Womens Lightweight Freestyle	Bronze	1
India	2016	Badminton Womens Singles	Silver	1



6. show country who won maximum medals.

**Query:**

```
select Team as Country, COUNT(MEDAL) as Won_medal from olympics
where Medal<>"NoMedal"
group by Team
ORDER BY Won_medal DESC
limit 1;
```

**Result:**

Country	Won_medal
United States	5219



7. show top 10 countries who won gold

Query:

```
select Team as Country , count(medal) as Gold_medal from olympics
where medal = 'gold'
group by Team
order by Gold_medal desc
LIMIT 10;
```

Result:

Country	Gold_medal
United States	2474
Soviet Union	1058
Germany	679
Italy	535
Great Britain	519
France	455
Sweden	451
Hungary	432
Canada	422
East Germany	369





8. show in which year did United States won most gold medal

**Query:**

```
select year ,Team, count(medal) as Gold_medal from olympics
where team = 'United States' and medal='gold'
group by year
order by Gold_medal desc
limit 1;
```

**Result:**

Year	Team	Gold_medal
1984	United States	190



9. In which sports United States has most medals.

**Query:**

```
• select TEAM ,Sport, count(medal) as Most_medals from olympics  
where team = 'United States' AND MEDAL<> 'NOMEDAL'  
group by Sport  
ORDER BY Most_medals DESC  
limit 1;
```

**Result:**

TEAM	Sport	Most_medals
United States	Athletics	1071



10. Find top three players who won most medals along with their sports and country.

**Query:**

```
select Name as Player_Name, Team as Country ,Sport ,count(Medal) as Won_medal from olympics
where medal<> "nomedal"
GROUP BY NAME , SPORT ,TEAM
order by Won_medal desc
LIMIT 3;
```

**Result:**

Player_Name	Sport	Country	Won_medal
Michael Fred Phelps II	Swimming	United States	28
Larysa Semenivna Latynina Diriy	Gymnastics	Soviet Union	18
Nikolay Yefimovich Andrianov	Gymnastics	Soviet Union	15



11. Find player with most gold medals in cycling along with his country. (top 5)

Query:

```
select Name as Players_Name, Team as Country ,Sport ,Medal ,count(Medal) as won_medal
from olympics
where medal ='gold' and sport = 'cycling'
GROUP BY NAME ,TEAM
order by count(Medal) desc
limit 5;
```

Result:

Players_Name	Country	Sport	Medal	won_medal
Christopher Andrew Chris Hoy	Great Britain	Cycling	Gold	6
Jason Francis Kenny	Great Britain	Cycling	Gold	6
Bradley Marc Wiggins	Great Britain	Cycling	Gold	5
Marcus Latimer Hurley	United States	Cycling	Gold	4
Laura Rebecca Trott Kenny	Great Britain	Cycling	Gold	4



12. Find player with most medals (Gold + Silver+ Bronze) in Basketball also show his country. (Top 5)

Query:

```
Select Name,Team,Sport, count(Medal) from olympics
Where sport = 'Basketball' and Medal<>'NoMedal'
Group by Name,Team,Sport
order by count(Medal) desc
limit 5;
```

Result:

Players_Name	Country	Sport	MEDAL	Won_medal
Zurab Sakandelidze	Soviet Union	Basketball	Bronze	1
Zurab Sakandelidze	Soviet Union	Basketball	Gold	1
Zorica urkovi	Yugoslavia	Basketball	Bronze	1
Zoran utura	Yugoslavia	Basketball	Silver	1
Zoran Slavni	Yugoslavia	Basketball	Gold	1



13. Find out the count of different medals of the top basketball player Teresa Edwards

**Query:**

```
select Name as Player_Name, Sport, Team as Country ,medal,count( medal ) as Won_medal from olympics
where sport = 'basketball' and name= 'Teresa Edwards'
GROUP BY NAME , SPORT ,TEAM,medal
order by Won_medal desc;
```

**Result:**

Player_Name	Sport	Country	Medal	Won_medal
Teresa Edwards	Basketball	United States	Gold	4
Teresa Edwards	Basketball	United States	Bronze	1



14. Find out medals won by male, female each year.

Query:

```
select year ,sex ,count(medal) as won_medal from olympics
WHERE MEDAL<>"NO MEDAL"
group by year ,SEX
order by year asc;
```

Result:

Year	Sex	Won_medal
1896	M	380
1900	F	33
1900	M	1903
1904	F	16
1904	M	1285
1906	F	11
1906	M	1722
1908	F	47
1908	M	3054
1912	F	87
1912	M	3953
1920	F	134
1920	M	4158
1924	F	261
1924	M	5432
1928	F	437
1928	M	5137
1932	F	369
1932	M	2952
1936	F	549
1936	M	6852
1948	F	761
1948	M	6719
1952	F	1682
1952	M	7676
1956	F	1139



1956	M	5295
1960	F	1730
1960	M	7505
1964	F	1752
1964	M	7728
1968	F	2193
1968	M	8286
1972	F	2608
1972	M	9351
1976	F	2606
1976	M	7896
1980	F	2186
1980	M	6751
1984	F	2983
1984	M	8605
1988	F	4223
1988	M	10453
1992	F	5178
1992	M	11235
1994	F	1105
1994	M	2055
1996	F	5008
1996	M	8772
1998	F	1384
1998	M	2221
2000	F	5431
2000	M	8390
2002	F	1582
2002	M	2527
2004	F	5546
2004	M	7897
2006	F	1757
2006	M	2625
2008	F	5816
2008	M	7786
2010	F	1847
2010	M	2555
2012	F	5815
2012	M	7105
2014	F	2023
2014	M	2868
2016	F	6223
2016	M	7465





This analysis, I was able to gain a deeper understanding of the history of the Olympics and the performances of countries and athletes over the past 120 years. By using SQL, I was able to extract valuable insights from the data.

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