**Olympics Data Analysis (using SQL)**

Data Source Details:

<https://www.kaggle.com/datasets/heesoo37/120-years-of-olympic-history-athletes-and-results>

Step1: Create tables for the 2 data files.

Step2: Load the .csv data into the tables.

Reference video for Importing Data: <https://www.youtube.com/watch?v=bpIHh3clm7g>

Questions to be answered:

1. How many Olympics games have been held?

select count(distinct(games)) from athlete\_events;

1. Extract all Olympics games held so far.

select Event from athlete\_events;

1. Total no of nations who participated in each olympics game?

select count(distinct(Team)) from athlete\_events;

1. Which year saw the highest and lowest no of countries participating in olympics?

Highest

select \* from(

select year,count(distinct Team) as No\_of\_countries

from athlete\_events

group by year

order by No\_of\_countries desc)

where rownum =1;

Lowest

select \* from(

select year,count(distinct Team) as No\_of\_countries

from athlete\_events

group by year

order by No\_of\_countries asc)

where rownum =1;

1. Which nation has participated in all of the olympic games?

select distinct TEAM, NOC

from athlete\_events

where TEAM is not null

group by TEAM,NOC

having count(distinct YEAR) = (select count(distinct YEAR) from athlete\_events);

6. Find the Ratio of male and female athletes participated in all olympic games.

7. Fetch the top 5 athletes who have won the most gold medals.

select \* from

(select name,count(medal) as no\_of\_medals

from athlete\_events

where medal ='Gold'

group by name

order by no\_of\_medals desc)

where rownum <=5

8. Fetch the top 5 athletes who have won the most medals (gold/silver/bronze).

select \* from

(select name,count(medal) as no\_of\_medals

from athlete\_events

group by name

order by no\_of\_medals desc)

where rownum <=5

9. Identify the sport which was played in all summer Olympics.

select distinct sport from athlete\_events

where season ='Summer';

10. Which Sports were just played only once in the Olympics?

select sport,count(distinct year) as no\_of\_Olympics

from athlete\_events

group by sport

having count(distinct year) =1;

11. Fetch the total no of sports played in each Olympic games.

select count (distinct sport) from athlete\_events;

12. Fetch details of the oldest athletes to win a gold medal.

select sport,medal,count(distinct year) as no\_of\_Olympics

from athlete\_events

where medal ='gold'

group by sport,medal;

13. Fetch the top 5 most successful countries in Olympics. Success is defined by no of medals won

select \* from

(select team,count(medal) as no\_of\_medals

from athlete\_events

where medal ='Gold'

group by team

order by no\_of\_medals desc)

where rownum <=5;

14. List down total gold, silver and bronze medals won by each country.

select team,sum(case when medal ='gold' then 1 else 0 end)as gold\_medal,

sum(case when medal = 'silver' then 1 elso 0 end)as silver\_medal,

sum(case when medal ='bronze' then 1 else 0 end) as bronze\_medal,

count(medal) as cnt\_medal

from athlete\_events

where medal in('gold','silver,'bronze')

group by team

order by cnt\_medal desc;

15. List down total gold, silver and bronze medals won by each country corresponding to each Olympic games.

SELECT

team,

games,

SUM(CASE WHEN medal = 'Gold' THEN 1 ELSE 0 END) AS gold\_medals,

SUM(CASE WHEN medal = 'Silver' THEN 1 ELSE 0 END) AS silver\_medals,

SUM(CASE WHEN medal = 'Bronze' THEN 1 ELSE 0 END) AS bronze\_medals

FROM

athlete\_events

GROUP BY

team, games

ORDER BY

team, games asc;

16. Identify which country won the most gold, most silver and most bronze medals in each Olympic games.

SELECT

team,games,

MAX(CASE WHEN medal = 'Gold' THEN 1 ELSE 0 END) AS gold\_medals,

MAX(CASE WHEN medal = 'Silver' THEN 1 ELSE 0 END) AS silver\_medals,

MAX(CASE WHEN medal = 'Bronze' THEN 1 ELSE 0 END) AS bronze\_medals

FROM

athlete\_events

GROUP BY

team,games

ORDER BY

team,games;

17. Identify which country won the most gold, most silver, most bronze medals and the most medals in each olympic games.

WITH Count\_of\_medals as(

select team,games,

sum(case when medal='gold' then 1 else 0 end) as gold\_medals,

sum(case when medal='silver' then 1 else 0 end)as silver\_medals,

sum(case when medal='bronze' then 1 else 0 end)as bronze\_medals,

count(medal) as total\_medals from athlete\_events

group by team,games),

RNK\_Gold as(

select team,games,gold\_medals,

rank()over(partition by games order by gold\_medals desc) as rnk\_g

from Count\_of\_medals),

RNK\_Silver as(

select team,games,silver\_medals,

rank() over(partition by games order by silver\_medals desc)rnk\_s

from Count\_of\_medals),

RNK\_Bronze as(

select team,games,bronze\_medals,

rank() over(partition by games order by bronze\_medals desc)rnk\_b

from Count\_of\_medals),

RNK\_Totmedals as(

select team,games,total\_medals,

rank() over(partition by games order by total\_medals) as rnk\_medals

from Count\_of\_medals)

Select

gd.games,

gd.team as most\_gold\_won\_team,

gd.gold\_medals as most\_gold\_medals,

sr.team as most\_silver\_won\_team,

sr.silver\_medals as most\_silver\_medals,

br.team as most\_bronze\_won\_team,

br.bronze\_medals as most\_bronze\_medals,

t.team as most\_total\_won\_team,

t.total\_medals as most\_medals

from

RNK\_Gold gd

JOIN RNK\_Silver sr on gd.games=sr.games and sr.rnk\_s=1

JOIN RNK\_Bronze br on gd.games=br.games and br.rnk\_b=1

JOIN RNK\_Totmedals t on gd.games=t.games and t.rnk\_medals =1

where gd.rnk\_g=1

order by gd.games;

18. Which countries have never won gold medal but have won silver/bronze medals?

SELECT DISTINCT team

FROM athlete\_events

WHERE team NOT IN (

SELECT DISTINCT team

FROM athlete\_events

WHERE medal = 'Gold'

)

AND team IN (

SELECT DISTINCT team

FROM athlete\_events

WHERE medal IN ('Silver', 'Bronze')

)

ORDER BY team;

19. In which Sport/event, India has won highest medals.

select sport, team, count(medal) as total\_medals

from athlete\_events

where team='India'

group by sport, team

order by total\_medals desc;

20. Break down all Olympic games where India won medal for Hockey and how many medals in each olympic games.

SELECT

games,

COUNT(medal) AS total\_medals

FROM

athlete\_events

WHERE

team = 'India' AND

sport = 'Hockey' AND

medal IS NOT NULL

GROUP BY

games

ORDER BY

games;