sports

OLYMPICS DATA

A look back on the evolution
of today's most popular games

Introduction

I AM TARUSHIKA SHARMA, ON THIS PROJECT I HAVE UTILIZED SQL QUERIES TO SOLVE THE QUESTIONS WHICH IS RELATED TO OLYMPICS DATA. AND ALSO USE REVERSE ENGINEERING.

Archery

Fencing

Olympic Flame
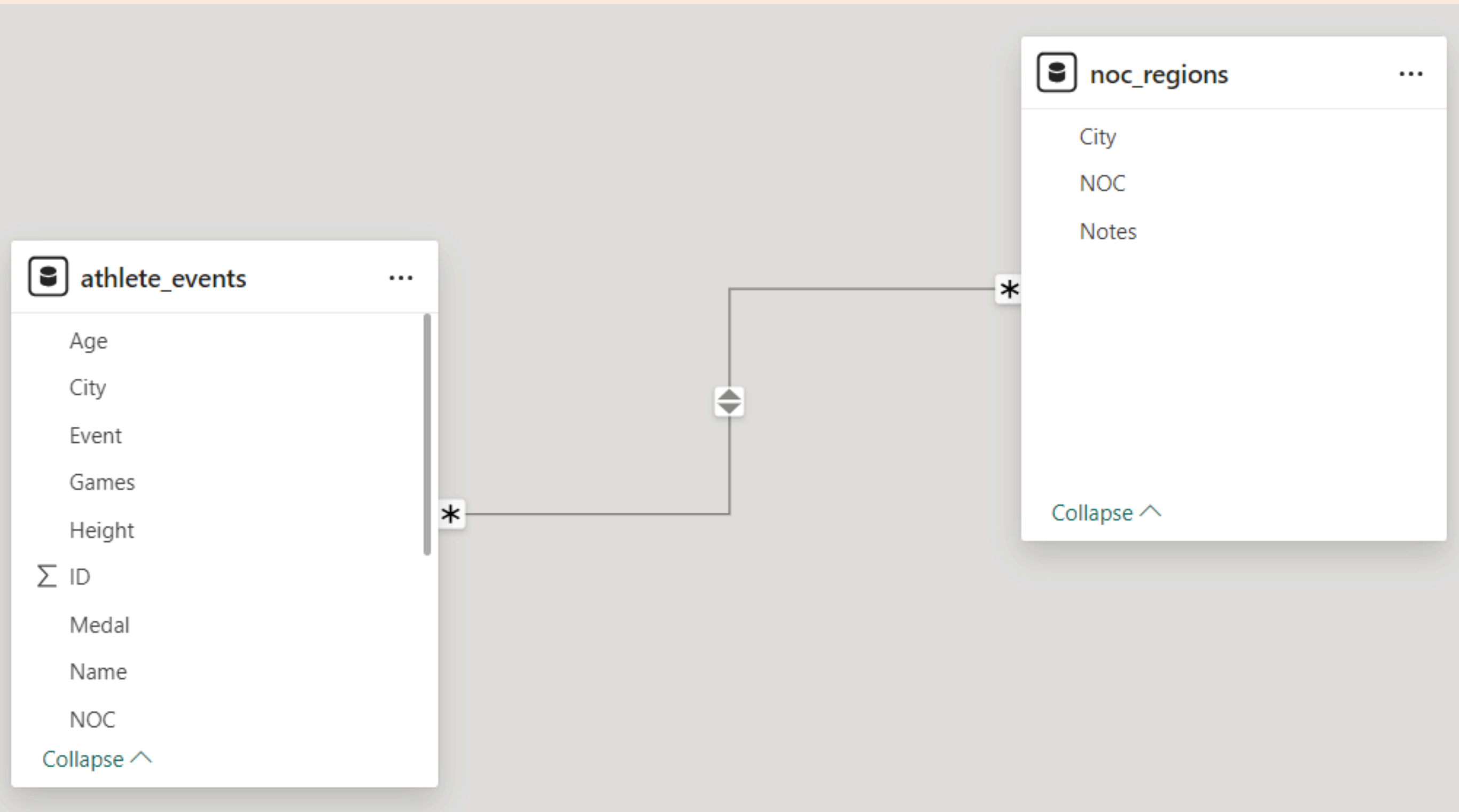
Judo

Gold Medal

Basketball

Olympic Games

Cycling

Volleyball

Badminton

Reverse Engineering

athlete_events ▼

- ◇ ID INT
- ◇ Name TEXT
- ◇ Sex TEXT
- ◇ Age INT
- ◇ Height TEXT
- ◇ Weight TEXT
- ◇ Team TEXT
- ◇ NOC TEXT
- ◇ Games TEXT
- ◇ Year INT
- ◇ Season TEXT
- ◇ City TEXT
- ◇ Sport TEXT
- ◇ Event TEXT
- ◇ Medal TEXT

noc_regions ▼

- ◇ NOC TEXT
- ◇ region TEXT
- ◇ notes TEXT

Relationship Cardinality

WHICH SPORTS WERE JUST PLAYED ONLY ONCE IN THE OLYMPICS?

```
with t1 as
    (select distinct games, sport
    from olympics_history),
  t2 as
    (select sport, count(1) as no_of_games
    from t1
    group by sport)
select t2.*, t1.games
from t2
join t1 on t1.sport = t2.sport
where t2.no_of_games = 1
order by t1.sport;
```

RESULT->

sport character varying 🔒	no_of_games bigint 🔒	games character varying 🔒
Aeronautics	1	1936 Summer
Basque Pelota	1	1900 Summer
Cricket	1	1900 Summer
Croquet	1	1900 Summer
Jeu De Paume	1	1908 Summer
Military Ski Patrol	1	1924 Winter
Motorboating	1	1908 Summer
Racquets	1	1908 Summer
Roque	1	1904 Summer
Rugby Sevens	1	2016 Summer

RETURN THE TOP 5 ATHLETES WHO HAVE WON THE MOST GOLD MEDALS?

```
with t1 as
        (select name, team, count(1) as total_gold_medals
        from olympics_history
        where medal = 'Gold'
        group by name, team
        order by total_gold_medals desc),
    t2 as
        (select *, dense_rank() over (order by total_gold_medals desc) as rnk
        from t1)
select name, team, total_gold_medals
from t2
where rnk <= 5;
```

<-QUERY

RESULT->

name character varying	team character varying	total_gold_medals bigint
Michael Fred Phelps, II	United States	23
Raymond Clarence "Ray" Ewry	United States	10
Mark Andrew Spitz	United States	9
Larysa Semenivna Latynina (Diriy-)	Soviet Union	9
Frederick Carlton "Carl" Lewis	United States	9
Paavo Johannes Nurmi	Finland	9
Ole Einar Bjrndalen	Norway	8
Matthew Nicholas "Matt" Biondi	United States	8
Sawao Kato	Japan	8
Jennifer Elisabeth "Jenny" Thompson (-Cumpelik)	United States	8

TOP 5 MOST SUCCESSFUL COUNTRIES IN OLYMPICS SUCCESS IS DEFINED BY NO. OF MEDALS WON?

```sql
with t1 as

        (select nr.region, count(1) as total_medals
        from olympics_history oh
        join olympics_history_noc_regions nr on nr.noc = oh.noc
        where medal <> 'NA'
        group by nr.region
        order by total_medals desc),
    t2 as
        (select *, dense_rank() over(order by total_medals desc) as rnk
        from t1)
select *
from t2
where rnk <= 5;
```

<-QUERY

RESULT->

region character varying	total_medals bigint	rnk bigint
USA	5637	1
Russia	3947	2
Germany	3756	3
UK	2068	4
France	1777	5

TOP 5 ATHLETES WHO HAVE WON THE MOST MEDALS (GOLD/SILVER/BRONZE)?

<-QUERY

```sql
with t1 as

    (select name, team, count(1) as total_medals
    from olympics_history
    where medal in ('Gold', 'Silver', 'Bronze')
    group by name, team
    order by total_medals desc),

t2 as
    (select *, dense_rank() over (order by total_medals desc) as rnk
    from t1)
select name, team, total_medals
from t2
where rnk <= 5;
```

RESULT->

name character varying	team character varying	total_medals bigint
Michael Fred Phelps, II	United States	28
Larysa Semenivna Latynina (Diriy-)	Soviet Union	18
Nikolay Yefimovich Andrianov	Soviet Union	15
Edoardo Mangiarotti	Italy	13
Takashi Ono	Japan	13
Borys Anfiyanovych Shakhlin	Soviet Union	13
Ole Einar Bjrndalen	Norway	13
Dara Grace Torres (-Hoffman, -Minas)	United States	12
Paavo Johannes Nurmi	Finland	12
Natalie Anne Coughlin (-Hall)	United States	12

WHICH YEAR SAW THE HIGHEST AND LOWEST NO OF COUNTRIES PARTICIPATING IN OLYMPICS?

```sql
with all_countries as
        (select games, nr.region
        from olympics_history oh
        join olympics_history_noc_regions nr ON nr.noc=oh.noc
        group by games, nr.region),
    tot_countries as
        (select games, count(1) as total_countries
        from all_countries
        group by games)
select distinct
concat(first_value(games) over(order by total_countries)
, ' - '
, first_value(total_countries) over(order by total_countries)) as Lowest_Countries,
concat(first_value(games) over(order by total_countries desc)
, ' - '
, first_value(total_countries) over(order by total_countries desc)) as Highest_Countries
from tot_countries
order by 1;
```

<-QUERY

RESULT->

lowest_countries 🔒 text	highest_countries 🔒 text
1896 Summer - 12	2016 Summer - 204

WHICH NATION HAS PARTICIPATED IN ALL OF THE OLYMPIC GAMES?

```sql
with tot_games as
        (select count(distinct games) as total_games
        from olympics_history),
    countries as
        (select games, nr.region as country
        from olympics_history oh
        join olympics_history_noc_regions nr ON nr.noc=oh.noc
        group by games, nr.region),
    countries_participated as
        (select country, count(1) as total_participated_games
        from countries
        group by country)
select cp.*
from countries_participated cp
join tot_games tg on tg.total_games = cp.total_participated_games
order by 1;
```

RESULT->

country character varying 🔒	total_participated_games bigint 🔒
France	51
Italy	51
Switzerland	51
UK	51

IDENTIFY THE SPORT WHICH WAS PLAYED IN ALL SUMMER OLYMPICS?

```sql
with t1 as
    (select count(distinct games) as total_games
    from olympics_history where season = 'Summer'),
  t2 as
    (select distinct games, sport
    from olympics_history where season = 'Summer'),
  t3 as
    (select sport, count(1) as no_of_games
    from t2
    group by sport)
select *
from t3
join t1 on t1.total_games = t3.no_of_games;
```

<-QUERY

RESULT->

sport character varying	no_of_games bigint	total_games bigint
Swimming	29	29
Cycling	29	29
Fencing	29	29
Gymnastics	29	29
Athletics	29	29

MENTION THE TOTAL NO OF NATIONS WHO PARTICIPATED IN EACH OLYMPICS GAME?

```sql
with all_countries as
    (select games, nr.region
    from olympics_history oh
    join olympics_history_noc_regions nr ON nr.noc = oh.noc
    group by games, nr.region)
select games, count(1) as total_countries
from all_countries
group by games
order by games;
```

<-QUERY

RESULT->

FEW MORE RECORDS

games character varying	total_countries bigint
1896 Summer	12
1900 Summer	31
1904 Summer	14
1906 Summer	20
1908 Summer	22
1912 Summer	29
1920 Summer	29
1924 Summer	45
1924 Winter	19
1928 Summer	46

THANK YOU

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