```sql
--  The following is the exploration of olympic competion data from from 1896 till
   2016

--use the select command to view the table using the following query
select *
from dbo.olympic$

--Q: List down the total no of nations who participated in each olympic game
--R:The analysis showed the number of nations who participated in each olympic
   competion with 352 countries recorder during 1932 Winter olympic and 380 countries
   during the 1895 summer olympic being the least in olympic history.The olympic
   competition with highest participant is 2000 summer olympic with 13821 countries in
   attendance and 2014 for winter olympic with 4891 countries in attendance.

select Games,count(NOC)  as no_of_country
from dbo.olympic$
where NOC<>'NA'
group by games
order by no_of_country desc

--Which year saw the highest participation
--The year with highest partcipation are
--2000 Summer Olympic 13821 nations in attendance
--2014 Winter olympic 4891 nations in attendance

select Games,count(NOC)  as no_of_country
from dbo.olympic$
where NOC<>'NA'
group by games
order by no_of_country desc

---which nation participaed in all olympic game
--There are 51 olympic competition and the four nations that participated in all are
   Italy,France,Switzerland and Great britain
with a1 as
    (select count(distinct Games)   as Total_olympic_game
     from dbo.olympic$),
a2 as
    (select NOC,count(distinct games)  as Game_by_country
     from dbo.olympic$
     group by NOC)
select *
from a2
join a1 on a2.game_by_country=a1.total_olympic_game

--identify the sport which was played in all summer
--The five sports are Gymnastic,Swimming,cycling,fencing and athletics

with a1 as
    (select count(distinct Games)   as Total_summer
     from dbo.olympic$
     where season='summer'),
```

```sql
a2 as
    (select Sport,count(distinct Games) as Sport_participation
     from dbo.olympic$
     where season ='Summer'
     group by sport)
select *
from a2
join a1 on a2.Sport_participation=a1.Total_summer

---which game was played only once
--There 9 games that was played once.

select top(9)Sport,count(distinct Games) as Sport_played
from dbo.olympic$
where season ='Summer'
group by sport
order by Sport_played

---find the total number of sport played in each olympic game

select Games,count(distinct sport)  Total_sport
from dbo.olympic$
group by Games
order by games

--find the ratio of total number of male and female athlete
with a as
    (select *
     from
     (select sex,count(*)  as total_sex
     from dbo.olympic$
     group by sex) as b
     Pivot(sum(total_sex) for sex in (M,F)) as g)
select
m/f
from a

--five athlete with most gold,bronze and silver
select name,
coalesce(gold,0) as Gold,
coalesce(silver,0) as Silver,
coalesce(bronze,0) as Bronze
from
    (select name,Medal,count(*) as Total_medal
     from dbo.olympic$
     where medal<>'NA'
     group by name,Medal) as a
Pivot(sum(Total_medal) for medal in (gold,silver,bronze)) as y
order by gold desc,silver desc,bronze desc
```