Q1.

*For the year 1992 in Barcelona display the country name and the total number of competitors from that country, including those countries that have no competitors, in descending order of the number of competitors. Remember not all countries participate in every Olympics games.*

*I first find the gameid which on the year 1992 where held in Barcelona, then group the country and count the competitors*

select region, count(\*)

from competition c, athlete a, noc n

where a.athleteid = c.athleteid and a.noc = n.nocid and

c.gameid in (

select gameid

from game

where city = 'Barcelona' and "Year" = '1992')

group by region

order by count(\*) desc

Q2.

*For the Vancouver (2010) games, list the competitor countries in the Curling competition.*

*I first combine four tables, where find the noc country, athlete and game information for the game events (Curling)*

select distinct region

from competition c, "event" e, athlete a, noc n

where c.eventname = e.eventname and e.sport = 'Curling'

and c.athleteid = a.athleteid and a.noc = n.nocid

and c.gameid in (

select gameid

from game

where city = 'Vancouver' and "Year" = '2010')

Q3.

List all the competitors who have competed in more than 4 events in any Olympics since 1900.

select distinct id, fname, lname, mname

from athlete\_name

where id in (

select c.athleteid

from competition c

where gameid in (

select gameid

from game

where "Year" >= 1900)

group by (c.athleteid, c.gameid)

having count(\*) > 4)

q4.

select game."Year", count(\*)

from (

select athleteid, gameid

from competition c

group by (athleteid, gameid)

having count(\*) >= 3 ) X, game

where X.gameid = game.gameid and game."Year" > 1940

group by (game."Year")

q5.

select X."Year", X.season, X.city, count(\*)

from (

select distinct a.athleteid, g."Year", g.season, g.city

from competition c, game g, athlete a

where c.gameid = g.gameid and g."Year" >= 1947

and c.athleteid = a.athleteid and a.noc in (

select nocid from noc where region = 'India')) X

group by (X."Year", X.season, X.city)

order by (X."Year")

q6.

select eventname, lastn, firstn, country, gender, medal

from medal m, game g

where m.gameid = g.gameid and m.discipline = 'Swimming'

and "Year" = 2004

q7.

select "Year", medal, count(\*)

from medal m, game g

where firstn = 'michael' and lastn = 'phelps'

and m.gameid = g.gameid

group by ("Year", medal)

q8.

select region

from medal m, noc n

where eventname like '%Marathon%' and gender = 'Men'

and medal = 'Gold' and m.country = n.nocid

group by (region)

order by count(\*) desc

limit 1

q9.

select distinct lastn, firstn

from

(select \*,

lag(max, 2) over (partition by lastn, firstn order by gameid) as firstGame,

lag(max, 1) over (partition by lastn, firstn order by gameid) as secondGame

from (

select lastn, firstn, gameid, max(rank)

from (

select lastn, firstn, medal.gameid, medal,

case

when medal = 'Bronze' then 1

when medal = 'Silver' then 2

when medal = 'Gold' then 3

end as rank

from medal, game

where medal.gameid = game.gameid

and game."Year" > 1940) X

group by (lastn, firstn, gameid)

order by (lastn, firstn, gameid)) Y

) Z

where Z.firstGame is not null and Z.secondGame is not null

and Z.firstGame <= Z.secondGame and Z.secondGame <= Z.max