**SQL Coding Challenge (Virtual Art Gallery)**

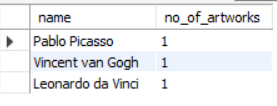
1. select a.name, count(aw.artistid) as no\_of\_artworks from artists a

join artworks aw on aw.artistid = a.artistid

group by a.artistid,a.name

order by no\_of\_artworks desc;

Output:

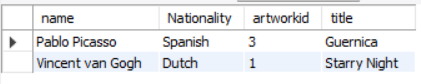


2. select a.name, a.Nationality,aw.artworkid, aw.title from artists a

join artworks aw on aw.artistid =a.artistid

where a.nationality in("Spanish","Dutch");

Output:



3. select a.name,count(aw.artworkid) as no\_of\_artworks from artists a

join artworks aw ON a.artistid = aw.artistid

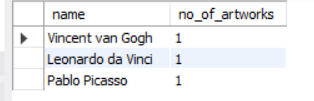
join categories c on aw.CategoryID = c.categoryid

where c.name = 'Painting'

group by a.artistid, a.name

order by no\_of\_artworks desc;

Output:



4. select aw.title as artwork\_name, a.name as artist\_name, c.name as category\_name

from exhibitions e

join exhibitionartworks ea on e.exhibitionid = ea.exhibitionid

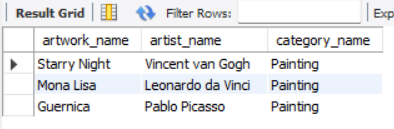
join artworks aw on ea.artworkid = aw.artworkid

join artists a on aw.artistid = a.artistid

join categories c on aw.categoryid = c.categoryid

where e.title = 'modern art masterpieces';

output:



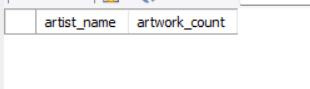
5. select a.name as artist\_name, count(aw.artworkid) as artwork\_count from artists a

join artworks aw on a.artistid = aw.artistid

group by a.artistid, a.name

having count(aw.artworkid) >2;

Output:



(The table is empty because there are no artworks more than one)

6. select aw.title , aw.artworkid,aw.artistid

from artworks aw

join exhibitionartworks ea1 on aw.artworkid = ea1.artworkid

join exhibitions e1 on ea1.exhibitionid = e1.exhibitionid

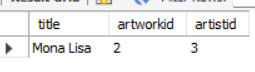
join exhibitionartworks ea2 on aw.artworkid = ea2.artworkid

join exhibitions e2 on ea2.exhibitionid = e2.exhibitionid

where e1.title = 'modern art masterpieces'

and e2.title = 'renaissance art';

output:



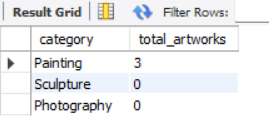
7. select c.name as category, count(a.artworkid) as total\_artworks

from categories c

left join artworks a on c.categoryid = a.categoryid

group by c.name;

output:



8. select a.name as artist, count(aw.artworkid) as total\_artworks from artists a

join artworks aw on a.artistid = aw.artistid

group by a.artistid, a.name

having count(aw.artworkid) > 3;

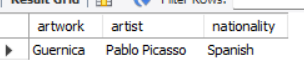
9. select a.title as artwork, a.name as artist, a.nationality

from artworks a

join artists a on a.artistid = a.artistid

where a.nationality = 'Spanish';

output:



10.

11. select a.title as artworks from artworks a

left join exhibitionartworks ea on a.artworkid = ea.artworkid

where ea.exhibitionid is null;

12.

13. select c.name as category, count(aw.artworkid) as total\_artworks from categories c

left join artworks aw on c.categoryid = aw.categoryid

group by c.categoryid, c.name;

(Repeated query question 7)

14. select a.name as artist, count(aw.artworkid) as total\_artwork from artists a

join artworks aw on a.artistid = aw.artistid

group by a.artistid, a.name

having count(aw.artworkid) > 2;

(Repeated query question 5)

15. select c.name as category, avg(aw.year) as avg\_year

from categories c

join artworks aw on c.categoryid = aw.categoryid

group by c.categoryid, c.name

having count(aw.artworkid) > 1;

Output:



16. select aw.title ,aw.artistid,aw.artworkid

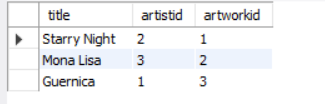
from artworks aw

join exhibitionartworks ea on aw.artworkid = ea.artworkid

join exhibitions e on ea.exhibitionid = e.exhibitionid

where e.title = 'modern art masterpieces';

output:



17.

18. select aw.title

from artworks aw

left join exhibitionartworks ea on aw.artworkid = ea.artworkid

where ea.artworkid is null;

19. select distinct a.name

from artists a

join artworks aw on a.artistid = aw.artistid

where aw.categoryid = (

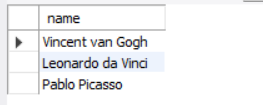
select categoryid

from artworks

where title = 'Mona Lisa'

);

Output:



20. select a.name, count(aw.artworkid) as artwork\_count

from artists a

join artworks aw on a.artistid = aw.artistid

group by a.name

order by artwork\_count desc;

output:

