

DBMS LAB 4

NAME :NAGAVENI L G

SRN :PES2UG21CS315

SEC:5F

TASK1

1) The SQL query provided has a minor issue. We are trying to select the FirstName, LastName, and Age of members who have borrowed books, but the subquery is using group by age, which is not a valid grouping column. Instead, we should use group by MemberID since we want to find distinct MemberIDs.

2) This SQL query will retrieve the titles of books that were published in the same year as the average publication year of books in the 'Science Fiction' genre. As there are no aggregate classes here, no need of using 'having'.

3) The issue is that we are using a subquery to calculate the average age grouped by the first name, but the subquery returns a set of average ages, one for each unique first name. Therefore, we cannot use this subquery directly in the WHERE clause to compare against a single age value for each member. Correlated subqueries need to be used.

TASK2

4) The art gallery is planning an exhibition and wants to showcase artworks that are priced less than the average price for their respective types. This will help them to increase the income of art gallery. Write an SQL query to retrieve the artist ID, first name, and last name of artists whose artworks meet this criteria. [with out using joins]

```
PES2UG21CS315>select A.artist_id , A.f_name,A.l_name from artist as A
-> where A.artist_id in (
-> select distinct AR.artist_id from art as AR
-> where AR.art_price < (
-> select avg(art_price) from art as subquery where subquery.art_type=AR.art_type));
```

artist_id	f_name	l_name
A002	Karan	Desai
A004	Manikantan	Murugan
A011	Mahadev	Mani

3 rows in set (0.01 sec)

5) The art gallery is organizing multiple exhibitions across different galleries. They are interested in identifying artists who have exhibited their artworks at only one gallery, as they want to acknowledge the versatility of these artists. Write an SQL query to find the artist ID, first name, and last name of these artists.[only one time you can use join]

```
PES2UG21CS315>
PES2UG21CS315>
PES2UG21CS315>SELECT a.artist_id as ArtistID, a.f_name as FirstName, a.l_name as LastName
-> FROM artist a
-> JOIN art ar ON a.artist_id = ar.artist_id
-> JOIN exhibited e ON ar.art_id = e.art_id
-> GROUP BY a.artist_id
-> HAVING COUNT(DISTINCT e.ex_id) = 1;
```

ArtistID	FirstName	LastName
A001	Guru	Dev
A003	Mahesh	Joshi
A005	Jaya	Lalitha
A006	Hema	Malini
A007	Stev	Garcia
A008	Darmendra	Naik
A009	Lata	paramesh
A010	Ravi	Ragavan
A011	Mahadev	Mani

9 rows in set (0.01 sec)

6) In the vibrant city of Bengaluru, the local art community is flourishing. There's an upcoming art exhibition focusing on paintings created by male artists. The organizers are keen to feature artists from Bengaluru who specialize in painting. Can you provide a list of male artists from Bengaluru who have created paintings for this exciting event? We need their artist IDs, first names, and last names to include them in the exhibition. [without using joins]

```
PES2UG21CS315>
PES2UG21CS315>select artist_id as ArtistID, f_name as FirstName,l_name as LastName from artist where location='Bengaluru' and gender='M' and artist_id in
select artist_id from specialization where specialization='Painter');
```

ArtistID	FirstName	LastName
A004	Manikantan	Murugan
A007	Stev	Garcia

2 rows in set (0.00 sec)

7) Imagine you are managing an art gallery's customer database. The gallery wants to identify customers who have been particularly active in purchasing artworks. To do this, they want you to find customers who have placed more than two orders. How would you write an SQL query to accomplish this task and provide a list of customer IDs meeting this criterion? [without using joins]

```
PES2UG21CS315>
PES2UG21CS315>
PES2UG21CS315>select cust_id as CustomerID from purchase group by cust_id having count(order_id)>2;
```

CustomerID
C002

1 row in set (0.00 sec)

8) In the bustling city of Bengaluru, the local art gallery is hosting a special exhibition, and the management is closely monitoring the success of the event. They are particularly interested in identifying customers who may have encountered payment issues during their art purchases. Your task is to help them find these customers and gather their information for further assistance. Can you provide a list of customers in Bengaluru who have experienced payment failures while purchasing artworks from the gallery's recent exhibition? Please include their customer ID (cust_id), first name (f_name), and last name (l_name) in your report.[with out using joins]

```
PES2UG21CS315>
PES2UG21CS315>
PES2UG21CS315>select c.cust_id,c.f_name,c.l_name from customer as c where c.cust_id in (select pu.cust_id from purchase as pu where pu.order_id in (select p
a.order_id from payment as pa where pa.p_status='Failed'));
+-----+-----+
| cust_id | f_name | l_name |
+-----+-----+
| C002    | Amit   | Kumar   |
| C009    | Anita  | Naidu   |
+-----+-----+
2 rows in set (0.00 sec)
```

9) In the vibrant world of art galleries, a fascinating enigma awaits unraveling. The art gallery management is on a quest to uncover hidden artistic talents. They are keen to identify artists who, despite their remarkable skills, have never participated in any exhibition, particularly the prestigious 'G003' exhibition. These artists also have a distinct penchant for non-conventional art forms, as they have never crafted any artworks categorized as painting. Without using joins, provide a list of the first names (fname) and last names (lname) of these unique artists. [with out using joins]

```
PES2UG21CS315>
PES2UG21CS315>
PES2UG21CS315>select f_name as FirstName , l_name as LastName from artist where artist_id not in (select distinct artist_id from exhibited where ex_id='G003
') and artist_id not in (select distinct artist_id from art where art_type='Painting');
+-----+-----+
| FirstName | LastName |
+-----+-----+
| Karan      | Desai    |
| Mahesh     | Joshi    |
| Jaya       | Lalitha  |
| Hema       | Malini   |
| Stev       | Garcia   |
| Darmendra  | Naik     |
| Lata       | paramesh |
| Mahadev    | Mani     |
| Ram        | Dev      |
+-----+-----+
9 rows in set (0.00 sec)
```

THANK YOU 😊