# Famous Paintings Project

select * from artist;
select * from canvas_size;
select * from image_link;
select * from museum;
select * from museum_hours;
select * from product_size;
select * from subject;
select * from work;

Q1) Fetch all the paintings which are not displayed on any museums?
select * from work
where museum_id is null;

| | work_id bigint | name text | artist_id bigint | style text | museum_id double precision |
|---|---|---|---|---|---|
| 1 | 125752 | Arabian Horses at Pasture | 757 | Baroque | [null] |
| 2 | 125818 | Count Halm on His Basedow Estate | 757 | Baroque | [null] |
| 3 | 125763 | Napoleon Before the Burning City of Smolensk | 757 | Baroque | [null] |
| 4 | 125774 | Peasants Resting in the Field | 757 | Baroque | [null] |
| 5 | 125785 | Portrait Oberleutnant Theodor Von Klein | 757 | Baroque | [null] |
| 6 | 125796 | The Rescue of Count Munnich | 757 | Baroque | [null] |
| 7 | 125807 | The Stable Yard | 757 | Baroque | [null] |
| 8 | 24532 | Jacob A. Stamler Departing Le Havre | 563 | [null] | [null] |
| 9 | 124470 | Kaleda off Le Havre | 563 | [null] | [null] |
| 10 | 124479 | R. Bell &amp; Co. Steamship Bothal in a Heavy Swell | 563 | [null] | [null] |

Q2) Are there museum's without any paintings?
select *
from museum m
LEFT JOIN work w
ON m.museum_id = w.museum_id
Where w.work_id is NULL;

                              –OR-

select * from museum m
        where not exists (select 1 from work w
                where w.museum_id=m.museum_id)

| museum_id bigint | name text | address text | city text | state text | postal text | country text | phone text | url text |
|---|---|---|---|---|---|---|---|---|

Q3) How many paintings have an asking price of more than their regular price?
select count(*) as total
from product_size
WHERE sale_price > regular_price;

| | total<br>bigint 🔒 |
|---|---|
| 1 | 0 |

Q4) Identify the paintings whose asking price is less than 50% of its regular price.
select * from product_size
where sale_price < (regular_price * 0.5);

| | work_id<br>bigint 🔒 | size_id<br>text 🔒 | sale_price<br>bigint 🔒 | regular_price<br>bigint 🔒 |
|---|---|---|---|---|
| 1 | 31780 | 36 | 10 | 125 |
| 2 | 31780 | 30 | 10 | 95 |
| 3 | 198417 | 36 | 30 | 125 |
| 4 | 198417 | 30 | 30 | 95 |
| 5 | 31974 | 24 | 30 | 85 |

Q5) Which canva size costs the most?
SELECT c.label as canva, p.sale_price as sale_price
FROM product_size AS p
JOIN canvas_size as c ON p.size_id = c.size_id::text
ORDER BY p.sale_price DESC
LIMIT 1;
                                --OR --
select c.label as conva, p.sale_price as sale_price
from ( select *,
              rank() over(order by sale_price desc) as rnk
              from product_size) p
join canvas_size as c
on c.size_id = p.size_id::bigint
where p.rnk=1;

| | conva<br>text 🔒 | sale_price<br>bigint 🔒 |
|---|---|---|
| 1 | 48" x 96"(122 cm x 244 cm) | 1115 |

In the product_size table, the size_id is in text format, so we typecast it to bigint to ensure that both size_id columns have the same datatype. This is necessary because the size_id in the canvas_size table is of datatype bigint. By typecasting, we maintain consistent data types for proper comparisons and joins.

Q6) Delete duplicate records from work, product_size, subject and image_link tables
delete from work

  where ctid not in (select min(ctid)

       from work

       group by work_id );


  delete from product_size

  where ctid not in (select min(ctid)

       from product_size

       group by work_id, size_id );


  delete from subject

  where ctid not in (select min(ctid)

       from subject

       group by work_id, subject );


  delete from image_link

  where ctid not in (select min(ctid)

       from image_link

```
DELETE 0


Query returned successfully in 298 msec.
```

Here,
ctid is a system column in PostgreSQL that uniquely identifies rows based on their physical location in the table. The subquery finds the smallest ctid for each work_id, while the DELETE query removes all other rows, ensuring only one instance per work_id remains.

Q7) Identify the museums with invalid city information in the given dataset
select * from museum
where city ~ '^[0-9]'

| | museum_id | name | address | city | state | postal | country | phone | url |
|---|---|---|---|---|---|---|---|---|---|
| | bigint | text | text | text | text | text | text | text | text |
| 1 | 34 | The State Hermitage Museum | Palace Square | 2 | Sankt-Peterburg | 190000 | Russia | 7 812 710-90-79 | https://www.hermitagemu |
| 2 | 36 | Museum Folkwang | Museumsplatz 1 | 45128 | Essen | [null] | Germany | 49 201 8845000 | https://www.museum-folk |
| 3 | 37 | Museum of Grenoble | 5 Pl. de Lavalette | 38000 | Grenoble | [null] | France | 33 4 76 63 44 44 | https://www.museedegrer |
| 4 | 38 | Musée des Beaux-Arts de Quimper | 40 Pl. Saint-Corentin | 29000 | Quimper | [null] | France | 33 2 98 95 45 20 | https://www.mbaq.fr/en/h |
| 5 | 40 | Musée du Louvre | Rue de Rivoli | 75001 | Paris | [null] | France | 33 1 40 20 50 50 | https://www.louvre.fr/en |
| 6 | 74 | Kröller-Müller Museum | Houtkampweg 6 | 6731 AW Otterlo | [null] | [null] | Netherlands | +31 318 591 241 | https://krollermuller.nl/en |

The ~ operator checks if city starts with a digit, using ^ to mark the beginning and [0-9] to match any digit, returning rows where the city field begins with a number, typically indicating invalid city names.

Q8) Museum_Hours table has 1 invalid entry. Identify it and remove it.
delete from museum_hours
        where ctid not in (select min(ctid)
                        from museum_hours
                        group by museum_id, day );

```
DELETE 0


Query returned successfully in 98 msec.
```

Q9) Fetch the top 10 most famous painting subject.
1<sup>ST</sup> With Ranking Window Functions (RANK).
```
SELECT *
FROM (
   SELECT s.subject,
        COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk

   FROM work w
   JOIN subject s ON s.work_id = w.work_id
   GROUP BY s.subject
) x
WHERE rnk <= 10;
```

| | subject<br>text | no_of_paintings<br>bigint | rnk<br>bigint |
|---|---|---|---|
| 1 | Portraits | 1070 | 1 |
| 2 | Nude | 525 | 2 |
| 3 | Landscape Art | 495 | 3 |
| 4 | Rivers/Lakes | 480 | 4 |
| 5 | Flowers | 457 | 5 |
| 6 | Abstract/Modern Art | 399 | 6 |
| 7 | Still-Life | 395 | 7 |
| 8 | Seascapes | 323 | 8 |
| 9 | Marine Art/Maritime | 268 | 9 |
| 10 | Horses | 265 | 10 |

2<sup>ND</sup> With JOIN and Grouping.
```
select distinct subject, count(*) as subject_count
from subject s
join work w on s.work_id=w.work_id
group by subject
order by subject_count desc
limit 10;
```

3rd With Simple Aggregation & Grouping
SELECT subject, COUNT(*) AS subject_count
FROM subject
GROUP BY subject
ORDER BY subject_count DESC
LIMIT 10;

| | subject text | subject_count bigint |
|---|---|---|
| 1 | Portraits | 1070 |
| 2 | Nude | 525 |
| 3 | Landscape Art | 495 |
| 4 | Rivers/Lakes | 480 |
| 5 | Flowers | 457 |
| 6 | Abstract/Modern Art | 399 |
| 7 | Still-Life | 395 |
| 8 | Seascapes | 323 |
| 9 | Marine Art/Maritime | 268 |
| 10 | Horses | 265 |

Q10) Identify the museums which are open on both Sunday and Monday.  Display museum name, city.

select m.museum_id, m.name as museum_name, m.city
from museum_hours mh
join museum m on m.museum_id = mh.museum_id
where day='Sunday'
and exists (select 1 from museum_hours mh2
                    where mh2.museum_id = mh.museum_id
                    and mh2.day='Monday');

| | museum_id<br>bigint | museum_name<br>text | city<br>text |
|---|---|---|---|
| 1 | 30 | The Museum of Modern Art | New York |
| 2 | 31 | Pushkin State Museum of Fine Arts | Moscow |
| 3 | 32 | National Gallery of Victoria | Melbourne |
| 4 | 35 | The Metropolitan Museum of Art | New York |
| 5 | 37 | Museum of Grenoble | 38000 |
| 6 | 39 | Nelson-Atkins Museum of Art | Kansas City |
| 7 | 40 | Musée du Louvre | 75001 |
| 8 | 41 | National Maritime Museum | London |
| 9 | 42 | Museum of Fine Arts Boston | Boston |
| 10 | 43 | Rijksmuseum | Amsterdam |

EXISTS is used for subquery filtering, checking if a museum_id is open on both 'Sunday' and 'Monday',  with SELECT 1 simply confirming row existence.


Q11) How many museums are open every single day?
select count(*) from (
                    select museum_id, count(*)
                    from museum_hours
                    group by museum_id
                    having count(*) =7) x;

| | count<br>bigint |
|---|---|
| 1 | 17 |

Q12) Which are the top 5 most popular museum?  (Popularity is defined based on most no of paintings in a museum)

```
select m.name as museum, m.city,m.country,x.no_of_painintgs
from (   select m.museum_id, count(1) as no_of_painintgs
                , rank() over(order by count(1) desc) as rnk
            from work w
            join museum m on m.museum_id=w.museum_id
            group by m.museum_id) x
join museum m on m.museum_id=x.museum_id
where x.rnk<=5;
```

                                --2nd with CTE--

```
WITH ranked_museums AS (
   SELECT m.museum_id,
       COUNT(1) AS no_of_paintings,
       RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
   FROM work w
   JOIN museum m ON m.museum_id = w.museum_id
   GROUP BY m.museum_id
)
SELECT m.name AS museum, m.city, m.country, rm.no_of_paintings
FROM ranked_museums rm
JOIN museum m ON m.museum_id = rm.museum_id
WHERE rm.rnk <= 5;
```

| | museum<br>text | city<br>text | country<br>text | no_of_painintgs<br>bigint |
|---|---|---|---|---|
| 1 | The Metropolitan Museum of Art | New York | USA | 939 |
| 2 | Rijksmuseum | Amsterdam | Netherlands | 452 |
| 3 | National Gallery of Art | Washington | USA | 375 |
| 4 | National Gallery | London | UK | 423 |
| 5 | The Barnes Foundation | Philadelphia | USA | 350 |

Q13) Who are the top 5 most popular artist? (Popularity is defined based on most no of paintings done by an artist)

SELECT a.full_name AS artist, a.nationality, x.no_of_paintings
FROM (
    SELECT a.artist_id, COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN artist a ON a.artist_id = w.artist_id
    GROUP BY a.artist_id
) x
JOIN artist a ON a.artist_id = x.artist_id
WHERE x.rnk <= 5;

--2$^{nd}$ with CTE--

WITH ranked_artists AS (
    SELECT a.artist_id,
        COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN artist a ON a.artist_id = w.artist_id
    GROUP BY a.artist_id
)
SELECT a.full_name AS artist, a.nationality, ra.no_of_paintings
FROM ranked_artists ra
JOIN artist a ON a.artist_id = ra.artist_id
WHERE ra.rnk <= 5;

| | artist 🔒 text | nationality 🔒 text | no_of_paintings 🔒 bigint |
|---|---|---|---|
| 1 | Pierre-Auguste Renoir | French | 469 |
| 2 | Claude Monet | French | 378 |
| 3 | Albert Marquet | French | 233 |
| 4 | Maurice Utrillo | French | 253 |
| 5 | Vincent Van Gogh | Dutch | 308 |

Q14) Display the 3 least popular canva sizes WITH Derived Table.

```
SELECT label, ranking, no_of_paintings
FROM (
   SELECT cs.size_id, cs.label, COUNT(1) AS no_of_paintings,
        DENSE_RANK() OVER (ORDER BY COUNT(1)) AS ranking
   FROM work w
   JOIN product_size ps ON ps.work_id = w.work_id
   JOIN canvas_size cs ON cs.size_id::text = ps.size_id
   GROUP BY cs.size_id, cs.label
) x
WHERE x.ranking <= 3;
```

                                        --2nd with CTE--

```
WITH ranked_sizes AS (
   SELECT cs.size_id, cs.label, COUNT(1) AS no_of_paintings,
        DENSE_RANK() OVER (ORDER BY COUNT(1)) AS ranking
   FROM work w
   JOIN product_size ps ON ps.work_id = w.work_id
   JOIN canvas_size cs ON cs.size_id::text = ps.size_id
   GROUP BY cs.size_id, cs.label
)
SELECT label, ranking, no_of_paintings
FROM ranked_sizes
WHERE ranking <= 3;
```

| | label<br>text | ranking<br>bigint | no_of_paintings<br>bigint |
|---|---|---|---|
| 1 | 36" x 27"(91 cm x 69 cm) | 1 | 1 |
| 2 | 37" x 30"(94 cm x 76 cm) | 1 | 1 |
| 3 | 45" x 32"(114 cm x 81 cm) | 1 | 1 |
| 4 | 44" x 34"(112 cm x 86 cm) | 1 | 1 |
| 5 | 32" x 18"(81 cm x 46 cm) | 1 | 1 |

Q15) Which museum is open for the longest during a day. Dispay museum name, state and hours open and which day?

```
SELECT museum_name, state AS city, day, open, close, duration
FROM (
    SELECT m.name AS museum_name, m.state, day, open, close,
        to_timestamp(open, 'HH:MI AM') AS open_time,
        to_timestamp(close, 'HH:MI PM') AS close_time,
        to_timestamp(close, 'HH:MI PM') - to_timestamp(open, 'HH:MI AM') AS duration,
        RANK() OVER (ORDER BY (to_timestamp(close, 'HH:MI PM') - to_timestamp(open,
'HH:MI AM')) DESC) AS rnk
    FROM museum_hours mh
    JOIN museum m ON m.museum_id = mh.museum_id
) x
WHERE x.rnk = 1;
```

<div align="center">--2nd with CTE--</div>

```
WITH ranked_museum_hours AS (
    SELECT m.name AS museum_name, m.state, day, open, close,
        to_timestamp(open, 'HH:MI AM') AS open_time,
        to_timestamp(close, 'HH:MI PM') AS close_time,
        to_timestamp(close, 'HH:MI PM') - to_timestamp(open, 'HH:MI AM') AS duration,
        RANK() OVER (ORDER BY (to_timestamp(close, 'HH:MI PM') - to_timestamp(open,
'HH:MI AM')) DESC) AS rnk
    FROM museum_hours mh
    JOIN museum m ON m.museum_id = mh.museum_id
)
SELECT museum_name, state AS city, day, open, close, duration
FROM ranked_museum_hours
WHERE rnk = 1;
```

| | museum_name<br>text | city<br>text | day<br>text | open<br>text | close<br>text | duration<br>interval |
|---|---|---|---|---|---|---|
| 1 | Musée du Louvre | Paris | Friday | 09:00:AM | 09:45:PM | 12:45:00 |

Q16) Which museum has the most no of most popular painting style?

```
WITH pop_style AS
   (SELECT style,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work
    GROUP BY style),
cte AS
   (SELECT w.museum_id,
        m.name AS museum_name,
        w.style,
        COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN museum m ON m.museum_id = w.museum_id
    JOIN pop_style ps ON ps.style = w.style
    WHERE w.museum_id IS NOT NULL
      AND ps.rnk = 1
    GROUP BY w.museum_id, m.name, w.style)
SELECT museum_name, style, no_of_paintings
FROM cte
WHERE rnk = 1;
```

| | museum_name<br>text | style<br>text | no_of_paintings<br>bigint |
|---|---|---|---|
| 1 | The Metropolitan Museum of Art | Impressionism | 244 |

Q17) Identify the artists whose paintings are displayed in multiple countries.

```
WITH cte AS (
   SELECT DISTINCT a.full_name AS artist,
        m.country
   FROM work w
   JOIN artist a ON a.artist_id = w.artist_id
   JOIN museum m ON m.museum_id = w.museum_id
)
SELECT artist, COUNT(1) AS no_of_countries
FROM cte
GROUP BY artist
HAVING COUNT(1) > 1
ORDER BY no_of_countries DESC;
```

| | artist text | no_of_countries bigint |
|---|---|---|
| 1 | Vincent Van Gogh | 8 |
| 2 | Claude Monet | 7 |
| 3 | Paul Gauguin | 7 |
| 4 | Rembrandt Van Rijn | 6 |
| 5 | Pierre-Auguste Renoir | 6 |

Q18) Display the country and the city with most no of museums. Output 2 seperate columns to mention the city and country. If there are multiple value, seperate them with comma.

```
WITH cte_country AS (
    SELECT country,
        COUNT(1) AS country_count,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM museum
    GROUP BY country
),
cte_city AS (
    SELECT city,
        COUNT(1) AS city_count,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM museum
    GROUP BY city
)
SELECT
    STRING_AGG(DISTINCT country.country, ', ') AS countries,
    STRING_AGG(city.city, ', ') AS cities
FROM cte_country country
CROSS JOIN cte_city city
WHERE country.rnk = 1
  AND city.rnk = 1;
```

<div align="center">--WITH SUBQUERY--</div>

```
SELECT
    STRING_AGG(DISTINCT country, ', ') AS countries,
    STRING_AGG(city, ', ') AS cities
FROM (
    SELECT country,
        COUNT(1) AS country_count,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM museum
    GROUP BY country
) AS country_data
JOIN (
    SELECT city,
        COUNT(1) AS city_count,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM museum
    GROUP BY city
) AS city_data ON country_data.rnk = 1 AND city_data.rnk = 1
GROUP BY country_data.rnk, city_data.rnk;
```

| | countries 🔒 text | cities 🔒 text |
|---|---|---|
| 1 | USA | London, Washington, New York, Paris |

Q19) Identify the artist and the museum where the most expensive and least expensive painting is placed. Display the artist name, sale_price, painting name, museum name, museum city and canvas label.

```
SELECT w.name AS painting,
    ps.sale_price,
    a.full_name AS artist,
    m.name AS museum,
    m.city,
    cz.label AS canvas
FROM work w
JOIN product_size ps ON ps.work_id = w.work_id
JOIN museum m ON m.museum_id = w.museum_id
JOIN artist a ON a.artist_id = w.artist_id
JOIN canvas_size cz ON cz.size_id = ps.size_id::NUMERIC
WHERE ps.sale_price = (SELECT MAX(sale_price) FROM product_size)
  OR ps.sale_price = (SELECT MIN(sale_price) FROM product_size);
```

<div align="center">--WITH CTE--</div>

```
WITH cte AS (
    SELECT *,
        RANK() OVER (ORDER BY sale_price DESC) AS rnk,
        RANK() OVER (ORDER BY sale_price) AS rnk_asc
    FROM product_size
)
SELECT w.name AS painting,
    cte.sale_price,
    a.full_name AS artist,
    m.name AS museum,
    m.city,
    cz.label AS canvas
FROM cte
JOIN work w ON w.work_id = cte.work_id
JOIN museum m ON m.museum_id = w.museum_id
JOIN artist a ON a.artist_id = w.artist_id
JOIN canvas_size cz ON cz.size_id = cte.size_id::NUMERIC
WHERE rnk = 1 OR rnk_asc = 1;
```

| | painting text | sale_price bigint | artist text | museum text | city text | canvas text |
|---|---|---|---|---|---|---|
| 1 | Portrait of Madame Labille-Guyard and Her Pupils | 10 | Adélaïde Labille-Guiard | The Metropolitan Museum of Art | New York | 30" Long Edge |
| 2 | Portrait of Madame Labille-Guyard and Her Pupils | 10 | Adélaïde Labille-Guiard | The Metropolitan Museum of Art | New York | 36" Long Edge |
| 3 | Fortuna | 1115 | Peter Paul Rubens | The Prado Museum | Madrid | 48" x 96"(122 cm x 244 cm) |

Q20) Which country has the 5th highest no of paintings?

```
WITH cte AS (
    SELECT m.country,
        COUNT(1) AS no_of_Paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN museum m ON m.museum_id = w.museum_id
    GROUP BY m.country
)
SELECT country,
    no_of_Paintings
FROM cte
WHERE rnk = 5;
```

```
SELECT country,
    no_of_Paintings
FROM (
  SELECT m.country,
      COUNT(1) AS no_of_Paintings,
      RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
  FROM work w
  JOIN museum m ON m.museum_id = w.museum_id
  GROUP BY m.country
) AS ranked_countries
WHERE rnk = 5;
```

| | country<br>text | no_of_paintings<br>bigint |
|---|---|---|
| 1 | Spain | 196 |

Q21) Which are the 3 most popular and 3 least popular painting styles?

```
WITH cte AS (
  SELECT style,
      COUNT(1) AS cnt,
      RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk,
      COUNT(1) OVER () AS no_of_records
  FROM work
  WHERE style IS NOT NULL
  GROUP BY style
)
SELECT style,
    CASE
      WHEN rnk <= 3 THEN 'Most Popular'
      ELSE 'Least Popular'
    END AS remarks
FROM cte
WHERE rnk <= 3
  OR rnk > no_of_records - 3;
```

```sql
SELECT style,
    CASE
       WHEN rnk <= 3 THEN 'Most Popular'
       ELSE 'Least Popular'
    END AS remarks
FROM (
  SELECT style,
      COUNT(1) AS cnt,
      RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk,
      COUNT(1) OVER () AS no_of_records
  FROM work
  WHERE style IS NOT NULL
  GROUP BY style
) AS ranked_styles
WHERE rnk <= 3
  OR rnk > no_of_records - 3;
```

| | style text | remarks text |
|---|---|---|
| 1 | Impressionism | Most Popular |
| 2 | Post-Impressionism | Most Popular |
| 3 | Realism | Most Popular |
| 4 | Avant-Garde | Least Popular |
| 5 | Art Nouveau | Least Popular |
| 6 | Japanese Art | Least Popular |

Q22) Which artist has the most no of Portraits paintings outside USA?. Display artist name, no of paintings and the artist nationality.

```
WITH artist_paintings AS (
    SELECT a.full_name,
        a.nationality,
        COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN artist a ON a.artist_id = w.artist_id
    JOIN subject s ON s.work_id = w.work_id
    JOIN museum m ON m.museum_id = w.museum_id
    WHERE s.subject = 'Portraits'
     AND m.country != 'USA'
    GROUP BY a.full_name, a.nationality
)
SELECT full_name AS artist_name,
    nationality,
    no_of_paintings
FROM artist_paintings
WHERE rnk = 1;


                            --WITH SUBQUERY--
SELECT full_name AS artist_name,
    nationality,
    no_of_paintings
FROM (
    SELECT a.full_name,
        a.nationality,
        COUNT(1) AS no_of_paintings,
        RANK() OVER (ORDER BY COUNT(1) DESC) AS rnk
    FROM work w
    JOIN artist a ON a.artist_id = w.artist_id
    JOIN subject s ON s.work_id = w.work_id
    JOIN museum m ON m.museum_id = w.museum_id
    WHERE s.subject = 'Portraits'
     AND m.country != 'USA'
    GROUP BY a.full_name, a.nationality
) AS x
WHERE rnk = 1;
```

| | artist_name 🔒 text | nationality 🔒 text | no_of_paintings 🔒 bigint |
|---|---|---|---|
| 1 | Jan Willem Pieneman | Dutch | 14 |
| 2 | Vincent Van Gogh | Dutch | 14 |

## Conclusion

The **Famous Paintings SQL Analysis Project** offered a comprehensive exploration of a dataset that encompasses various aspects of artworks, including their pricing and the museums that house them. Through the use of SQL queries, I was able to analyze intricate relationships among paintings, artists, and museums, uncovering significant patterns in pricing strategies and geographical distribution.

This project not only provided me with valuable insights into the art market but also allowed me to deepen my analytical capabilities. I gained a better understanding of how different factors influence artwork valuation, including market trends and artist reputation. Furthermore, I recognized the critical importance of data integrity, as accurate and reliable data is essential for drawing meaningful conclusions.

Overall, this project served as a significant learning experience, enabling me to bridge the gap between theoretical knowledge and practical application in data analysis. The skills and insights I acquired throughout this project will undoubtedly inform my future endeavors in data science and analytics, equipping me to tackle more complex challenges in the field.