

The background of the image features abstract, expressive brushstrokes of various colors. A large, textured red stroke is visible on the top left, a yellow stroke on the top right, a green stroke on the middle left, and orange, blue, and pink strokes on the bottom right. Small black ink splatters are scattered across the white space between the paint strokes.

YUVRAJ GIRI

**SQL
PROJECT**

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ABOUT

The database on this project contains 8 tables like artist, canvas_size, image_link, museum_hours, museum, product_size, subject, work.

This is the Project with real world based advanced to basic questions.



Introducing myself

My name is Yuvraj Giri. My aim is to be a Data Analyst. Currently I'm learning SQL and have upper intermediate skills. This is my Third Project. I've included various questions on this project which will be beneficial for making data driven business decisions and extracting meaningful insights from this.



```
-- Fetch all the paintings which  
-- are not displayed on any museums.
```

```
SELECT
```

```
    DISTINCT(name)
```

```
FROM work
```

```
WHERE museum_id is null
```

```
order by 1
```

O1

	name
1	14 Juillet
2	14 Juillet au Havre
3	A Bad One
4	A Balcony
5	A Balcony in Paris
6	A Ballet at the Alhambra
7	A Bar at the Folies-Bergere
8	A Bashi-Bazouk and His Dog
9	A Bashi-Bazouk

Total rows: 1000 of 10223 Que

```
-- How many paintings have an sales  
--price of more than their regular price  
SELECT  
    COUNT(work_id)  
FROM product_size  
WHERE sale_price > regular_price
```

02

count	bigint
1	0

-- Which canvas size costs the most

SELECT

```
    cs.label,  
    ps.sale_price  
FROM product_size ps  
JOIN canvas_size cs  
    ON cs.size_id::text = ps.size_id
```

ORDER BY 2 **DESC**

LIMIT 1

03

	label text	sale_price bigint
1	48" x 96"(122 cm x 244 cm)	1115

-- Identify the museums with invalid
-- city information in the given dataset

SELECT

name

AS Museum_Name,

city

FROM museum

WHERE city ~ '^[0-9]'

05

	museum_name text	city text
1	The State Hermitage Museum	2
2	Museum Folkwang	45128
3	Museum of Grenoble	38000
4	Musée des Beaux-Arts de Quimper	29000
5	Musée du Louvre	75001
6	Kröller-Müller Museum	6731 AW Otterlo

--Fetch the top 10 most famous painting subject

```
SELECT
    s.subject,
    COUNT(s.subject)
    AS Repeat_count
FROM subject s
JOIN work w
    ON w.work_id = s.work_id
GROUP BY 1
ORDER BY 2 DESC
LIMIT 10
```

06

	subject text	repeat_count bigint
1	Portraits	1070
2	Abstract/Modern Art	575
3	Nude	525
4	Landscape Art	495
5	Rivers/Lakes	480
6	Flowers	457
7	Still-Life	395
8	Seascapes	326
9	Marine Art/Maritime	268
10	Horses	265

--Names of museums that are open every single day

SELECT

```
m.museum_id,  
m.name  
AS Museum_Name  
FROM museum m  
JOIN museum_hours mh  
ON mh.museum_id = m.museum_id  
GROUP BY 1,2  
HAVING COUNT(m.name) =7
```

07

	museum_id bigint	museum_name text
1	61	Solomon R. Guggenheim Museum
2	41	National Maritime Museum
3	32	National Gallery of Victoria
4	43	Rijksmuseum
5	30	The Museum of Modern Art
6	66	Smithsonian American Art Museum
7	82	Army Museum
8	50	The Prado Museum
9	35	The Metropolitan Museum of Art
10	44	Israel Museum
11	31	Pushkin State Museum of Fine Arts
12	47	National Gallery
13	48	Mauritshuis Museum
14	80	Dallas Museum of Art
15	84	National Gallery Prague
16	57	Van Gogh Museum
17	62	The Tate Gallery
18	86	Courtauld Gallery

--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,  
COUNT(w.work_id)  
AS Total_work  
FROM artist a  
JOIN work w  
ON w.artist_id = a.artist_id  
GROUP BY 1  
ORDER BY 2 DESC  
LIMIT 5
```

08

	full_name text	total_work bigint
1	Pierre-Auguste Renoir	469
2	Claude Monet	378
3	Vincent Van Gogh	308
4	Maurice Utrillo	253
5	Albert Marquet	233

--Which museum is open for the longest during a day.
--Display Id, museum name, state and hours open and which day?

WITH MY AS

(

SELECT

```
m.museum_id,  
m.name  
AS Museum_Name,  
m.state,  
mh.day,  
TO_TIMESTAMP(mh.open, 'HH:MI:AM')::TIME  
AS Open_time,  
TO_TIMESTAMP(mh.close, 'HH:MI:PM')::TIME  
AS Close_time
```

FROM museum m

JOIN museum_hours mh

ON mh.museum_id = m.museum_id)

SELECT

```
museum_id,  
Museum_Name,  
state,  
day,  
Close_time - Open_time  
AS Hours_open
```

FROM my

WHERE Close_time - Open_time =
(SELECT MAX(Close_time - Open_time)
FROM my)

09

	museum_id	lock	museum_name	lock	state	lock	day	lock	hours_open	lock
	bigint		text		text		text		interval	
	1		40		Musée du Louvre		Paris		12:45:00	

--Identify the artists whose paintings are displayed in more than 5 countries

SELECT

a.full_name,

COUNT(DISTINCT m.country)

AS Country_count

FROM artist a

JOIN work w

ON w.artist_id = a.artist_id

JOIN museum m

ON m.museum_id = w.museum_id

GROUP BY 1

HAVING COUNT(DISTINCT m.country) > 5

ORDER BY 2 DESC

10

	full_name text	country_count bigint
1	Vincent Van Gogh	8
2	Claude Monet	7
3	Paul Gauguin	7
4	Francois Boucher	6
5	Pierre-Auguste Renoir	6
6	Rembrandt Van Rijn	6

```
--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
    DISTINCT(a.full_name)
    AS Artist_name,
    ps.sale_price,
    w.name
    AS Painting_name,
    m.name
    AS Museum_name,
    m.city
    AS Museum_city,
    cs.label
FROM artist a
```

```
JOIN work w
    ON w.artist_id = a.artist_id
JOIN product_size ps
    ON ps.work_id = w.work_id
JOIN canvas_size cs
    ON cs.size_id::text = ps.size_id
JOIN museum m |
    ON m.museum_id = w.museum_id
WHERE ps.sale_price =
    (SELECT MAX(sale_price) FROM product_size)
    OR ps.sale_price =
    (SELECT MIN(sale_price) FROM product_size)
```

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

-- Top 3 most popular painting style by total sales

SELECT

```
w.style  
AS Painting_style,  
SUM(ps.sale_price)  
FROM work w  
JOIN product_size ps  
ON ps.work_id = w.work_id  
WHERE w.style is not null  
GROUP BY 1  
ORDER BY 2 DESC  
LIMIT 3
```

12

	painting_style text	sum numeric
1	Impressionism	9688365
2	Post-Impressionism	5287130
3	Realism	3625200

THANK YOU

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