ART GALLERY MANAGEMENT SYSTEM

Project by – miss. Pooja Mahendra Malusare.

GUIDED BY – Mr. SAMIR WARSOLKAR SIR.

ABSTRACT

The Art Gallery Management System in MySQL offers a comprehensive solution for organizing and managing artworks, artists, and customer interactions. By seamlessly integrating functionalities such as artist and artwork management, customer tracking, and transaction recording, it streamlines gallery operations while providing insights into sales performance and customer preferences. This project harnesses the power of MySQL to create an efficient and user-friendly platform for art galleries to enhance their operations and customer experiences.

POOJA MAHENDRA MALUSARE

Poojamalusare29@gmail.com

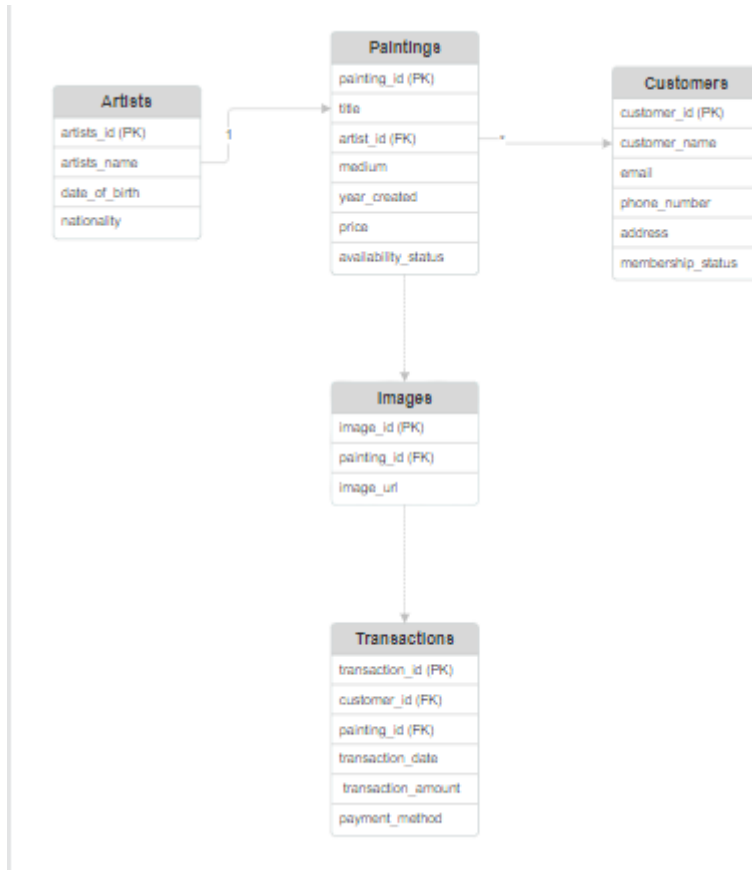# ART GALLERY MANAGEMENT SYSTEM

Project for SQL Module

Description:

The Art Gallery Management System is designed to facilitate the management of an art gallery's operations, including artist and artwork management, customer interactions, and transaction tracking. The system maintains comprehensive records of artists, their artworks, customers, images of artworks, and transactions.
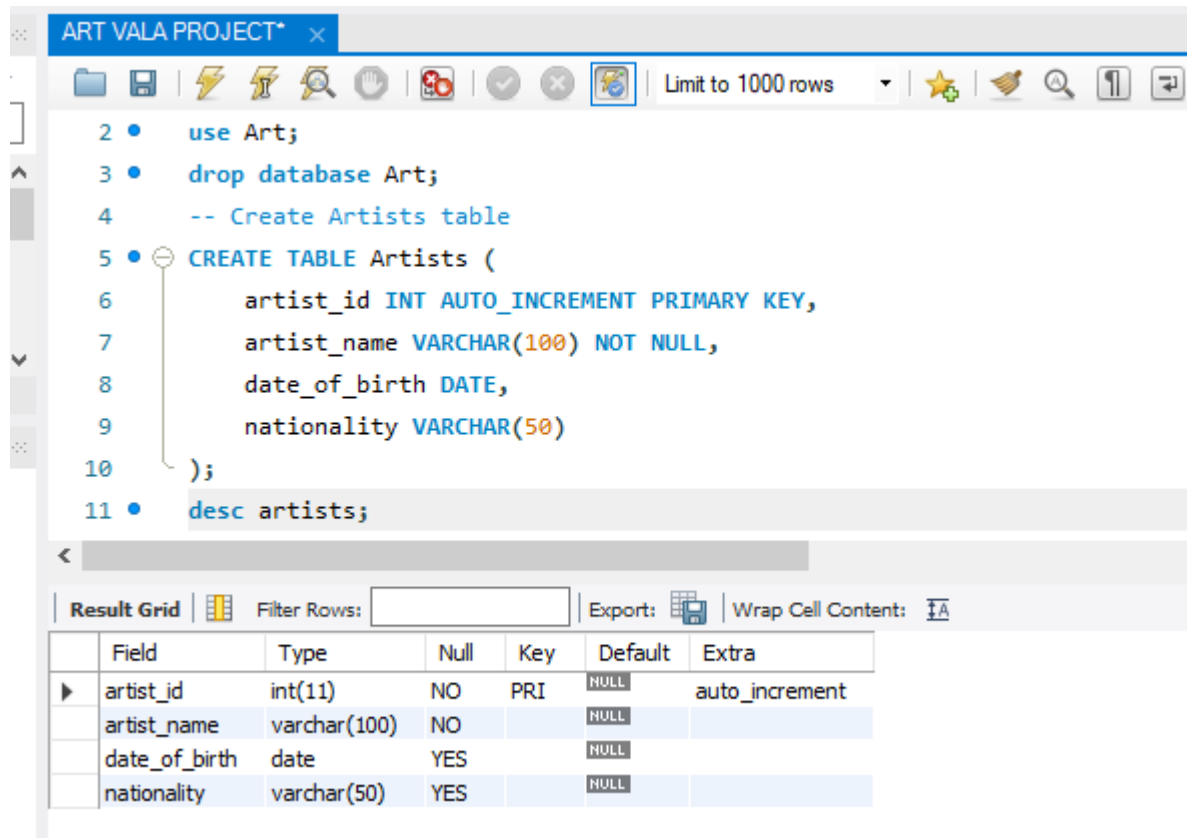
Features:-

1. **Artist Management:**
   The system allows administrators to maintain records of artists, including their names, dates of birth, nationalities, and other relevant information.

2. **Artwork Management:**
   Artworks created by artists are recorded in the system, including details such as titles, mediums, years created, prices, and availability status (e.g., available for sale, sold, on loan).

3. **Customer Management:**
   Customers interested in purchasing artworks are registered in the system, with their names, contact information (email, phone number, address), and membership status (e.g., regular, premium, VIP).

4. **Image Management:**
   Images of artworks are stored in the system to showcase them to customers. Each artwork can have multiple images associated with it.

5. **Transaction Tracking:**
   The system tracks transactions made by customers, including the purchase of artworks. Each transaction records the customer involved, the artwork purchased, the transaction date, amount, and payment method.

ER-Diagram (Entity Relation – Diagram) for Art Gallery Management System :-

Artists
- artists_id (PK)
- artists_name
- date_of_birth
- nationality

Paintings
- painting_id (PK)
- title
- artist_id (FK)
- medium
- year_created
- price
- availability_status

Customers
- customer_id (PK)
- customer_name
- email
- phone_number
- address
- membership_status

Images
- image_id (PK)
- painting_id (FK)
- image_url

Transactions
- transaction_id (PK)
- customer_id (FK)
- painting_id (FK)
- transaction_date
- transaction_amount
- payment_method

Table Descriptions :-

1. Artists :-


```
 2 •    use Art;
 3 •    drop database Art;
 4      -- Create Artists table
 5 • ⊖  CREATE TABLE Artists (
 6          artist_id INT AUTO_INCREMENT PRIMARY KEY,
 7          artist_name VARCHAR(100) NOT NULL,
 8          date_of_birth DATE,
 9          nationality VARCHAR(50)
10      );
11 •    desc artists;
```

Field	Type	Null	Key	Default	Extra
artist_id	int(11)	NO	PRI	NULL	auto_increment
artist_name	varchar(100)	NO		NULL	
date_of_birth	date	YES		NULL	
nationality	varchar(50)	YES		NULL	

2. Paintings :-


```sql
46 ● ⊖ CREATE TABLE Paintings (
47         painting_id INT AUTO_INCREMENT PRIMARY KEY,
48         title VARCHAR(255) NOT NULL,
49         artist_id INT,
50         medium VARCHAR(100),
51         year_created YEAR,
52         price DECIMAL(10, 2),
53         availability_status ENUM('Available', 'Sold', 'On loan', 'Not for sale'),
54         FOREIGN KEY (artist_id) REFERENCES Artists(artist_id)
55     );
56 ●   desc Paintings;
```

Field	Type	Null	Key	Default	Extra
painting_id	int(11)	NO	PRI	NULL	auto_increment
title	varchar(255)	NO		NULL	
artist_id	int(11)	YES	MUL	NULL	
medium	varchar(100)	YES		NULL	
year_created	year(4)	YES		NULL	
price	decimal(10,2)	YES		NULL	
availability_status	enum('Available','Sold','On loan','Not for sale')	YES		NULL	

3. Customers :-


```sql
90
91     -- Create Customers table
92 ● ⊖ CREATE TABLE Customers (
93         customer_id INT AUTO_INCREMENT PRIMARY KEY,
94         customer_name VARCHAR(100) NOT NULL,
95         email VARCHAR(255),
96         phone_number VARCHAR(20),
97         address VARCHAR(255),
98         membership_status ENUM('Regular', 'Premium', 'VIP')
99     );
100 ●  desc Customers;
```

Field	Type	Null	Key	Default	Extra
customer_id	int(11)	NO	PRI	NULL	auto_increment
customer_name	varchar(100)	NO		NULL	
email	varchar(255)	YES		NULL	
phone_number	varchar(20)	YES		NULL	
address	varchar(255)	YES		NULL	
membership_status	enum('Regular','Premium','VIP')	YES		NULL	

4. Images :-

Limit to 1000 rows

```
132        (130, 'Anaisha Verma', 'anaisha.verma@example.com', '+911234567894', '789 Fir St, L
133  ●     select * from Customers;
134        -- Create Images table
135  ● ⊖ CREATE TABLE Images (
136            image_id INT AUTO_INCREMENT PRIMARY KEY,
137            painting_id INT,
138            image_url VARCHAR(255),
139            FOREIGN KEY (painting_id) REFERENCES Paintings(painting_id)
140        );
141  ●     desc Images;
142
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
image_id	int(11)	NO	PRI	NULL	auto_increment
painting_id	int(11)	YES	MUL	NULL	
image_url	varchar(255)	YES		NULL	

5. Transactions:-

create database Art;

use Art;

drop database Art;

-- Create Artists table

CREATE TABLE Artists (

   artist_id INT AUTO_INCREMENT PRIMARY KEY,

   artist_name VARCHAR(100) NOT NULL,

   date_of_birth DATE,

   nationality VARCHAR(50)

);

desc artists;

-- Insert rows for Indian artists

```sql
INSERT INTO Artists (artist_id, artist_name, date_of_birth, nationality) VALUES

(1, 'Raja Ravi Varma', '1848-04-29', 'Indian'),

(2, 'Amrita Sher-Gil', '1913-01-30', 'Indian'),

(3, 'Tyeb Mehta', '1925-07-25', 'Indian'),

(4, 'Francis Newton Souza', '1924-04-12', 'Indian'),

(5, 'M.F. Husain', '1915-09-17', 'Indian'),

(6, 'S.H. Raza', '1922-02-22', 'Indian'),

(7, 'Vasudeo S. Gaitonde', '1924-04-04', 'Indian'),

(8, 'Anish Kapoor', '1954-03-12', 'Indian'),

(9, 'Bhupen Khakhar', '1934-03-10', 'Indian'),

(10, 'F.N. Souza', '1924-04-12', 'Indian'),

(11, 'Arun Kumar H.G.', '1975-09-05', 'Indian'),

(12, 'G. Subramanian', '1929-07-05', 'Indian'),

(13, 'Gopal Ghose', '1913-03-09', 'Indian'),

(14, 'Jamini Roy', '1887-04-11', 'Indian'),

(15, 'Jogen Chowdhury', '1939-02-16', 'Indian'),

(16, 'K.G. Subramanyan', '1924-02-15', 'Indian'),

(17, 'Manjit Bawa', '1941-03-15', 'Indian'),

(18, 'M.F. Husain', '1915-09-17', 'Indian'),

(19, 'Meera Mukherjee', '1928-10-06', 'Indian'),

(20, 'Nandalal Bose', '1882-12-03', 'Indian'),

(21, 'Ram Kumar', '1924-09-23', 'Indian'),

(22, 'Rameshwar Broota', '1941-07-25', 'Indian'),

(23, 'Ramkinkar Baij', '1906-05-26', 'Indian'),

(24, 'S.H. Raza', '1922-02-22', 'Indian'),

(25, 'Sakti Burman', '1935-11-09', 'Indian'),
```

(26, 'Sohan Qadri', '1932-11-02', 'Indian'),

(27, 'Subodh Gupta', '1964-09-22', 'Indian'),

(28, 'Tayeb Mehta', '1925-07-25', 'Indian'),

(29, 'Thota Vaikuntam', '1942-05-23', 'Indian');

select * from Artists;

-- Create Paintings table

```sql
CREATE TABLE Paintings (

    painting_id INT AUTO_INCREMENT PRIMARY KEY,

    title VARCHAR(255) NOT NULL,

    artist_id INT,

    medium VARCHAR(100),

    year_created YEAR,

    price DECIMAL(10, 2),

    availability_status ENUM('Available', 'Sold', 'On loan', 'Not for sale'),

    FOREIGN KEY (artist_id) REFERENCES Artists(artist_id)

);
```

desc Paintings;

-- Insert rows for Indian paintings with associated artist IDs

INSERT INTO Paintings (painting_id, title, artist_id, medium, year_created, price, availability_status) VALUES

(1, 'Lady with the Lamp', 1, 'Oil on canvas', 1879, 100000.00, 'Available'),

(2, 'Self Portrait', 2, 'Oil on canvas', 1931, 1500000.00, 'Available'),

(3, 'Kali', 3, 'Oil on canvas', 1989, 800000.00, 'Available'),

(4, 'Birth', 4, 'Oil on canvas', 1963, 1200000.00, 'Sold'),

(5, 'Zameen', 5, 'Oil on canvas', 1980, 1800000.00, 'Available'),

```
(6, 'Bindu', 6, 'Oil on canvas', 1987, 2500000.00, 'Available'),

(7, 'Untitled', 7, 'Oil on canvas', 1968, 3000000.00, 'On loan'),

(8, 'Sky Mirror', 8, 'Stainless steel', 2006, 3500000.00, 'Not for sale'),

(9, 'Bharat Mata', 9, 'Oil on canvas', 1993, 4000000.00, 'Available'),

(10, 'Mahishasura', 10, 'Oil on canvas', 1960, 500000.00, 'Sold'),

(11, 'The Cosmic Dance', 11, 'Oil on canvas', 1971, 12000000.00, 'Available'),

(12, 'Divine Lovers', 12, 'Oil on canvas', 1957, 12000000.00, 'Available'),

(13, 'Santiniketan', 13, 'Watercolor', 1950, 900000.00, 'Available'),

(14, 'Mother and Child', 14, 'Oil on canvas', 1946, 800000.00, 'Sold'),

(15, 'Untitled', 15, 'Oil on canvas', 1982, 700000.00, 'Available'),

(16, 'The Battle of Ganga and Jamuna', 16, 'Oil on canvas', 1971, 6000000.00, 'Available'),

(17, 'Nude', 17, 'Oil on canvas', 1959, 2000000.00, 'Available'),

(18, 'Shakti', 18, 'Oil on canvas', 1960, 3000000.00, 'On loan'),

(19, 'Ganesha', 19, 'Oil on canvas', 1955, 800000.00, 'Available'),

(20, 'Mother and Child', 20, 'Bronze', 1959, 500000.00, 'Available'),

(21, 'Untitled', 21, 'Oil on canvas', 1965, 600000.00, 'Sold'),

(22, 'Varanasi', 22, 'Oil on canvas', 1951, 1200000.00, 'Available'),

(23, 'Wounds', 23, 'Oil on canvas', 1974, 3500000.00, 'Available'),

(24, 'Adi Parva', 24, 'Oil on canvas', 1971, 2500000.00, 'Available'),

(25, 'The Last Supper', 25, 'Oil on canvas', 1980, 3000000.00, 'Not for sale'),

(26, 'Shiva', 26, 'Oil on canvas', 1969, 1500000.00, 'Available'),

(27, 'Untitled', 27, 'Oil on canvas', 1988, 1800000.00, 'Available'),

(28, 'Untitled', 28, 'Oil on canvas', 1976, 800000.00, 'Available'),

(29, 'Man With His Bull', 29, 'Bronze', 1972, 500000.00, 'Available');
select * from Paintings;
```

```sql
-- Create Customers table

CREATE TABLE Customers (

    customer_id INT AUTO_INCREMENT PRIMARY KEY,

    customer_name VARCHAR(100) NOT NULL,

    email VARCHAR(255),

    phone_number VARCHAR(20),

    address VARCHAR(255),

    membership_status ENUM('Regular', 'Premium', 'VIP')

);

desc Customers;
```

```sql
-- Insert rows for Indian customers

INSERT INTO Customers (customer_id, customer_name, email, phone_number, address,
membership_status) VALUES

(101, 'Rahul Sharma', 'rahul.sharma@example.com', '+911234567890', '123 Main St, Delhi',
'Regular'),

(102, 'Priya Patel', 'priya.patel@example.com', '+919876543210', '456 Elm St, Mumbai',
'Premium'),

(103, 'Rajesh Singh', 'rajesh.singh@example.com', '+911122334455', '789 Oak St, Kolkata',
'Regular'),

(104, 'Kavita Gupta', 'kavita.gupta@example.com', '+911234567890', '987 Maple St,
Bangalore', 'VIP'),

(105, 'Amit Kumar', 'amit.kumar@example.com', '+919988776655', '654 Pine St, Chennai',
'Regular'),

(106, 'Anjali Reddy', 'anjali.reddy@example.com', '+919900990099', '321 Cedar St,
Hyderabad', 'Regular'),
```

(107, 'Sandeep Mishra', 'sandeep.mishra@example.com', '+911234567890', '234 Birch St, Pune', 'Regular'),

(108, 'Neha Malhotra', 'neha.malhotra@example.com', '+919876543210', '567 Walnut St, Jaipur', 'Premium'),

(109, 'Suresh Shah', 'suresh.shah@example.com', '+911122334455', '876 Spruce St, Ahmedabad', 'Regular'),

(110, 'Divya Verma', 'divya.verma@example.com', '+911234567890', '789 Fir St, Lucknow', 'Regular'),

(111, 'Vikram Patel', 'vikram.patel@example.com', '+919988776655', '543 Pine St, Chandigarh', 'Regular'),

(112, 'Priyanka Gupta', 'priyanka.gupta@example.com', '+919900990099', '345 Cedar St, Nagpur', 'Regular'),

(113, 'Arun Singh', 'arun.singh@example.com', '+911234567890', '876 Birch St, Indore', 'Regular'),

(114, 'Meera Joshi', 'meera.joshi@example.com', '+919876543210', '234 Elm St, Varanasi', 'VIP'),

(115, 'Sanjay Sharma', 'sanjay.sharma@example.com', '+911122334455', '567 Oak St, Bhopal', 'Regular'),

(116, 'Deepak Gupta', 'deepak.gupta@example.com', '+911234567890', '987 Maple St, Surat', 'Regular'),

(117, 'Sunita Devi', 'sunita.devi@example.com', '+919988776655', '321 Cedar St, Kanpur', 'Regular'),

(118, 'Rajiv Kumar', 'rajiv.kumar@example.com', '+919900990099', '654 Pine St, Patna', 'Regular'),

(119, 'Pooja Yadav', 'pooja.yadav@example.com', '+911234567890', '876 Spruce St, Jaipur', 'Regular'),

(120, 'Aarav Gupta', 'aarav.gupta@example.com', '+911234567891', '123 Main St, Delhi', 'Regular'),

(121, 'Ishaan Sharma', 'ishaan.sharma@example.com', '+919876543212', '456 Elm St, Mumbai', 'Premium'),

(123, 'Aanya Singh', 'aanya.singh@example.com', '+911122334456', '789 Oak St, Kolkata', 'Regular'),

(124, 'Advika Patel', 'advika.patel@example.com', '+911234567892', '987 Maple St, Bangalore', 'VIP'),

(125, 'Vivaan Kumar', 'vivaan.kumar@example.com', '+919988776656', '654 Pine St, Chennai', 'Regular'),

(126, 'Aadhya Reddy', 'aadhya.reddy@example.com', '+919900990098', '321 Cedar St, Hyderabad', 'Regular'),

(127, 'Vihaan Mishra', 'vihaan.mishra@example.com', '+911234567893', '234 Birch St, Pune', 'Regular'),

(128, 'Ritisha Malhotra', 'ritisha.malhotra@example.com', '+919876543213', '567 Walnut St, Jaipur', 'Premium'),

(129, 'Aarush Shah', 'aarush.shah@example.com', '+911122334457', '876 Spruce St, Ahmedabad', 'Regular'),

(130, 'Anaisha Verma', 'anaisha.verma@example.com', '+911234567894', '789 Fir St, Lucknow', 'Regular');

 select * from Customers;

 -- Create Images table

CREATE TABLE Images (

    image_id INT AUTO_INCREMENT PRIMARY KEY,

    painting_id INT,

    image_url VARCHAR(255),

    FOREIGN KEY (painting_id) REFERENCES Paintings(painting_id)

);

desc Images;

-- Insert rows for Indian paintings into the Images table

INSERT INTO Images (painting_id, image_url) VALUES

(1, 'https://example.com/painting1.jpg'),

(2, 'https://example.com/painting2.jpg'),

(3, 'https://example.com/painting3.jpg'),

(4, 'https://example.com/painting4.jpg'),

(5, 'https://example.com/painting5.jpg'),

(6, 'https://example.com/painting6.jpg'),

(7, 'https://example.com/painting7.jpg'),

(8, 'https://example.com/painting8.jpg'),

(9, 'https://example.com/painting9.jpg'),

(10, 'https://example.com/painting10.jpg'),

(11, 'https://example.com/painting11.jpg'),

(12, 'https://example.com/painting12.jpg'),

(13, 'https://example.com/painting13.jpg'),

(14, 'https://example.com/painting14.jpg'),

(15, 'https://example.com/painting15.jpg'),

(16, 'https://example.com/painting16.jpg'),

(17, 'https://example.com/painting17.jpg'),

(18, 'https://example.com/painting18.jpg'),

(19, 'https://example.com/painting19.jpg'),

(20, 'https://example.com/painting20.jpg'),

(21, 'https://example.com/painting21.jpg'),

(22, 'https://example.com/painting22.jpg'),

(23, 'https://example.com/painting23.jpg'),

(24, 'https://example.com/painting24.jpg'),

(25, 'https://example.com/painting25.jpg'),

(26, 'https://example.com/painting26.jpg'),

(27, 'https://example.com/painting27.jpg'),

```sql
(28, 'https://example.com/painting28.jpg'),

(29, 'https://example.com/painting29.jpg');

select * from Images;


CREATE TABLE Transactions (

    transaction_id INT AUTO_INCREMENT PRIMARY KEY,

    customer_id INT,

    painting_id INT,

    transaction_date DATE,

    transaction_amount DECIMAL(10, 2),

    payment_method VARCHAR(50),

    FOREIGN KEY (customer_id) REFERENCES Customers(customer_id),

    FOREIGN KEY (painting_id) REFERENCES Paintings(painting_id)

);

desc Transactions;

-- Insert rows into the Transactions table with Indian names

INSERT INTO Transactions (customer_id, painting_id, transaction_date,
transaction_amount, payment_method) VALUES

(101, 1, '2024-01-01', 1500.00, 'Credit Card'),

(102, 2, '2024-01-02', 2000.00, 'PayPal'),

(103, 3, '2024-01-03', 1800.00, 'Cash'),

(104, 4, '2024-01-04', 2200.00, 'Credit Card'),

(105, 5, '2024-01-05', 2500.00, 'PayPal'),

(106, 6, '2024-01-06', 1900.00, 'Cash'),

(107, 7, '2024-01-07', 2100.00, 'Credit Card'),

(108, 8, '2024-01-08', 1800.00, 'PayPal'),
```

```sql
(109, 9, '2024-01-09', 2000.00, 'Cash'),

(110, 10, '2024-01-10', 2300.00, 'Credit Card'),

(111, 11, '2024-01-11', 2200.00, 'PayPal'),

(112, 12, '2024-01-12', 2400.00, 'Cash'),

(113, 13, '2024-01-13', 2600.00, 'Credit Card'),

(114, 14, '2024-01-14', 1800.00, 'PayPal'),

(115, 15, '2024-01-15', 2100.00, 'Cash'),

(116, 16, '2024-01-16', 2200.00, 'Credit Card'),

(117, 17, '2024-01-17', 2300.00, 'PayPal'),

(118, 18, '2024-01-18', 2500.00, 'Cash'),

(119, 19, '2024-01-19', 2600.00, 'Credit Card'),

(120, 20, '2024-01-20', 2000.00, 'PayPal'),

(121, 21, '2024-01-21', 1800.00, 'Cash'),

(123, 22, '2024-01-22', 2100.00, 'Credit Card'),

(124, 23, '2024-01-23', 2200.00, 'PayPal'),

(125, 24, '2024-01-24', 2300.00, 'Cash'),

(126, 25, '2024-01-25', 2400.00, 'Credit Card'),

(127, 26, '2024-01-26', 2500.00, 'PayPal'),

(128, 27, '2024-01-27', 2600.00, 'Cash'),

(129, 28, '2024-01-28', 2700.00, 'Credit Card'),

(130, 29, '2024-01-29', 2800.00, 'PayPal');

select * from Transactions;
```

SUBQUERIES :-

1. Count Paintings by Artist:-

   Query:-

   SELECT artist_name, (SELECT COUNT(*) FROM Paintings WHERE artist_id =
   Artists.artist_id) AS num_paintings
   FROM Artists;

   Result :-

artist_name	num_paintings
Raja Ravi Varma	1
Amrita Sher-Gil	1
Tyeb Mehta	1
Francis Newton Souza	1
M.F. Husain	1
S.H. Raza	1
Vasudeo S. Gaitonde	1
Anish Kapoor	1
Bhupen Khakhar	1
F.N. Souza	1
Arun Kumar H.G.	1
G. Subramanian	1
Gopal Ghose	1
Jamini Roy	1
Jogen Chowdhury	1
K.G. Subramanyan	1
Manjit Bawa	1
M.F. Husain	1
Meera Mukherjee	1
Nandalal Bose	1
Ram Kumar	1
Rameshwar Broota	1
Ramkinkar Baij	1
S.H. Raza	1
Sakti Burman	1
Sohan Qadri	1
Subodh Gupta	1
Tayeb Mehta	1
Thota Vaikuntam	1

2. List Customers with Premium Membership:

Query :-

SELECT *

FROM Customers

WHERE membership_status = 'Premium';

Result :-

customer_id	customer_name	email	phone_number	address	membership_status
102	Priya Patel	priya.patel@example.c	+919876543210	456 Elm St, Mumbai	Premium
108	Neha Malhotra	neha.malhotra@examp	+919876543210	567 Walnut St, Jaipur	Premium
121	Ishaan Sharma	ishaan.sharma@examp	+919876543212	456 Elm St, Mumbai	Premium
128	Ritisha Malhotra	ritisha.malhotra@exam	+919876543213	567 Walnut St, Jaipur	Premium

3. List Artists with Paintings Sold for more than Average Price:

Query :-

SELECT * FROM Artists

WHERE artist_id IN (SELECT artist_id FROM Paintings WHERE price > (SELECT AVG(price) FROM Paintings));

Result :-

artist_id	artist_name	date_of_birth	nationality
7	Vasudeo S. Gaitonde	1924-04-04	Indian
8	Anish Kapoor	1954-03-12	Indian
9	Bhupen Khakhar	1934-03-10	Indian
11	Arun Kumar H.G.	1975-09-05	Indian
12	G. Subramanian	1929-07-05	Indian
16	K.G. Subramanyan	1924-02-15	Indian
18	M.F. Husain	1915-09-17	Indian
23	Ramkinkar Baij	1906-05-26	Indian
25	Sakti Burman	1935-11-09	Indian

4. List Paintings with the Highest Price:

Query:-

SELECT * FROM Paintings

WHERE price = (SELECT MAX(price) FROM Paintings);

Result:-

painting_id	title	artist_id	medium	year_created	price	availability_status
11	The Cosmic Dance	11	Oil on canvas	1971	12000000	Available
12	Divine Lovers	12	Oil on canvas	1957	12000000	Available

5. Count Number of Transactions for Each Customer:

Query:-
SELECT customer_id, customer_name,
    (SELECT COUNT(*) FROM Transactions WHERE customer_id =
Customers.customer_id) AS num_transactions
FROM Customers;

Result:-

Customer_id	customer_name	num_transactions
101	Rahul Sharma	1
102	Priya Patel	1
103	Rajesh Singh	1
104	Kavita Gupta	1
105	Amit Kumar	1
106	Anjali Reddy	1
107	Sandeep Mishra	1
108	Neha Malhotra	1
109	Suresh Shah	1
110	Divya Verma	1
111	Vikram Patel	1
112	Priyanka Gupta	1
113	Arun Singh	1
114	Meera Joshi	1
115	Sanjay Sharma	1
116	Deepak Gupta	1
117	Sunita Devi	1
118	Rajiv Kumar	1
119	Pooja Yadav	1
120	Aarav Gupta	1
121	Ishaan Sharma	1
123	Aanya Singh	1
124	Advika Patel	1
125	Vivaan Kumar	1
126	Aadhya Reddy	1
127	Vihaan Mishra	1
128	Ritisha Malhotra	1
129	Aarush Shah	1
130	Anaisha Verma	1

6. -- JOINS

-- List Artists with the Highest Number of Paintings:-

Query :-

SELECT artist_name, (SELECT COUNT(*) FROM Paintings WHERE artist_id =
Artists.artist_id) AS num_paintings
FROM Artists
ORDER BY num_paintings DESC
Limit 10;

Result :-

artist_name	num_paintings
Thota Vaikuntam	1
F.N. Souza	1
Bhupen Khakhar	1
Anish Kapoor	1
Vasudeo S. Gaitonde	1
S.H. Raza	1
M.F. Husain	1
Francis Newton Souza	1
Tyeb Mehta	1
Amrita Sher-Gil	1

7. List Paintings with their Artists' Nationalities:

Query :-
SELECT p.title AS painting_title, a.nationality AS artist_nationality
FROM Paintings p
INNER JOIN Artists a ON p.artist_id = a.artist_id;

Result:-

painting_title	artist_nationality
Lady with the Lamp	Indian
Self Portrait	Indian
Kali	Indian
Birth	Indian
Zameen	Indian
Bindu	Indian
Untitled	Indian
Sky Mirror	Indian
Bharat Mata	Indian

Mahishasura	Indian
The Cosmic Dance	Indian
Divine Lovers	Indian
Santiniketan	Indian
Mother and Child	Indian
Untitled	Indian
The Battle of Ganga and Jamuna	Indian
Nude	Indian
Shakti	Indian
Ganesha	Indian
Mother and Child	Indian
Untitled	Indian
Varanasi	Indian
Wounds	Indian
Adi Parva	Indian
The Last Supper	Indian
Shiva	Indian
Untitled	Indian
Untitled	Indian
Man With His Bull	Indian

8. List Customers with their Membership Status and Transaction Amounts:

Query :-
SELECT c.customer_name, c.membership_status, t.transaction_amount
FROM Customers c
LEFT JOIN Transactions t ON c.customer_id = t.customer_id;

Result :-

customer_name	membership_status	transaction_amount
Rahul Sharma	Regular	1500
Priya Patel	Premium	2000

Rajesh Singh	Regular	1800
Kavita Gupta	VIP	2200
Amit Kumar	Regular	2500
Anjali Reddy	Regular	1900
Sandeep Mishra	Regular	2100
Neha Malhotra	Premium	1800
Suresh Shah	Regular	2000
Divya Verma	Regular	2300
Vikram Patel	Regular	2200
Priyanka Gupta	Regular	2400
Arun Singh	Regular	2600
Meera Joshi	VIP	1800
Sanjay Sharma	Regular	2100
Deepak Gupta	Regular	2200
Sunita Devi	Regular	2300
Rajiv Kumar	Regular	2500
Pooja Yadav	Regular	2600
Aarav Gupta	Regular	2000
Ishaan Sharma	Premium	1800
Aanya Singh	Regular	2100
Advika Patel	VIP	2200
Vivaan Kumar	Regular	2300
Aadhya Reddy	Regular	2400
Vihaan Mishra	Regular	2500
Ritisha Malhotra	Premium	2600
Aarush Shah	Regular	2700
Anaisha Verma	Regular	2800

9. List Artists with the Titles of their Paintings and Transaction Dates:

Query :-
SELECT a.artist_name, p.title AS painting_title, t.transaction_date
FROM Artists a
INNER JOIN Paintings p ON a.artist_id = p.artist_id
LEFT JOIN Transactions t ON p.painting_id = t.painting_id;

Result :-

artist_name	painting_title	transaction_date

Raja Ravi Varma	Lady with the Lamp	2024-01-01
Amrita Sher-Gil	Self Portrait	2024-01-02
Tyeb Mehta	Kali	2024-01-03
Francis Newton Souza	Birth	2024-01-04
M.F. Husain	Zameen	2024-01-05
S.H. Raza	Bindu	2024-01-06
Vasudeo S. Gaitonde	Untitled	2024-01-07
Anish Kapoor	Sky Mirror	2024-01-08
Bhupen Khakhar	Bharat Mata	2024-01-09
F.N. Souza	Mahishasura	2024-01-10
Arun Kumar H.G.	The Cosmic Dance	2024-01-11
G. Subramanian	Divine Lovers	2024-01-12
Gopal Ghose	Santiniketan	2024-01-13
Jamini Roy	Mother and Child	2024-01-14
Jogen Chowdhury	Untitled	2024-01-15
K.G. Subramanyan	The Battle of Ganga and Jamuna	2024-01-16
Manjit Bawa	Nude	2024-01-17
M.F. Husain	Shakti	2024-01-18
Meera Mukherjee	Ganesha	2024-01-19
Nandalal Bose	Mother and Child	2024-01-20
Ram Kumar	Untitled	2024-01-21
Rameshwar Broota	Varanasi	2024-01-22
Ramkinkar Baij	Wounds	2024-01-23
S.H. Raza	Adi Parva	2024-01-24
Sakti Burman	The Last Supper	2024-01-25
Sohan Qadri	Shiva	2024-01-26
Subodh Gupta	Untitled	2024-01-27
Tayeb Mehta	Untitled	2024-01-28
Thota Vaikuntam	Man With His Bull	2024-01-29

10. List Artists with their Paintings' Titles and Prices:

Query :-
SELECT a.artist_name, p.title AS painting_title, p.price
FROM Artists a
INNER JOIN Paintings p ON a.artist_id = p.artist_id;

Result :-

Raja Ravi Varma	Lady with the Lamp	100000
Amrita Sher-Gil	Self Portrait	1500000
Tyeb Mehta	Kali	800000
Francis Newton Souza	Birth	1200000
M.F. Husain	Zameen	1800000
S.H. Raza	Bindu	2500000
Vasudeo S. Gaitonde	Untitled	3000000
Anish Kapoor	Sky Mirror	3500000
Bhupen Khakhar	Bharat Mata	4000000
F.N. Souza	Mahishasura	500000
Arun Kumar H.G.	The Cosmic Dance	12000000
G. Subramanian	Divine Lovers	12000000
Gopal Ghose	Santiniketan	900000
Jamini Roy	Mother and Child	800000
Jogen Chowdhury	Untitled	700000
K.G. Subramanyan	The Battle of Ganga and Jamuna	6000000
Manjit Bawa	Nude	2000000
M.F. Husain	Shakti	3000000
Meera Mukherjee	Ganesha	800000
Nandalal Bose	Mother and Child	500000
Ram Kumar	Untitled	600000
Rameshwar Broota	Varanasi	1200000
Ramkinkar Baij	Wounds	3500000
S.H. Raza	Adi Parva	2500000
Sakti Burman	The Last Supper	3000000
Sohan Qadri	Shiva	1500000
Subodh Gupta	Untitled	1800000
Tayeb Mehta	Untitled	800000
Thota Vaikuntam	Man With His Bull	500000

THANK YOU