



THE ART GALLERY PROJECT

Art Gallery

Team members:

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Project Objective:

The objective of this project is to design and implement a database system for the Art Gallery to streamline its operations, improve data management, and enhance customer relationship management. The system will replace the current paper-based system with a digital database, allowing for efficient storage, retrieval, and analysis of information related to artists, artworks, shows, sales, and customers. Additionally, the system will support income tax reporting requirements, customer mailings, and the potential acceptance of works owned by collectors.

Database Schema:

The database schema will include tables for artists, artworks, Exhibitions, sales, customers, and potential leads. Each table will have attributes corresponding to the relevant information collected by the gallery, such as artist details, artwork details, show information, sales transactions, and customer preferences. Relationships between tables will be established to capture dependencies and associations between different entities, ensuring data integrity and consistency.

Sample Use Case:

A sample use case scenario would involve a customer visiting the gallery and expressing interest in purchasing an artwork. The sales associate would access the database to retrieve information about the artwork, including the artist, title, medium, and asking price. The sales associate would negotiate with the customer on the selling price, ensuring that any discount is approved by the artist. Once the sale is finalized, the database would record the transaction, generate a receipt for the customer, allocate commission between the gallery and the salesperson, and update relevant records accordingly.

Testing Evaluation:

Testing of the database system will involve various stages, including unit testing, integration testing, and user acceptance testing. Unit testing will ensure that individual components and functionalities of the database, such as data entry forms, queries, and reports, perform as expected. Integration testing will verify the interaction between different modules and components of the system, ensuring seamless integration and data flow. User acceptance testing will involve end-users evaluating the system's usability, functionality, and performance against predefined criteria and user requirements.

Entities Types:

- **Artwork Table**

- artwork_id - Integer (Primary Key)
- Title - VARCHAR(255)
- artist_id - INT
- medium - VARCHAR(50)
- dimensions - VARCHAR(50)
- creation_date - DATE
- description - TEXT
- image_url - VARCHAR(255)
- price - DECIMAL(10,2)
- status_id - INT
- acquisition_date - DATE
- origin - VARCHAR(255)
- location - VARCHAR(255)

- **Customer Table**

- customer_id - INT(Primary Key)
- name - VARCHAR(255)
- email - VARCHAR(255)
- phone_number - VARCHAR(20)
- address - TEXT

- **Exhibition Table**

- exhibition_id - INT(Primary Key)
- title - VARCHAR(255)
- start_date - DATE
- end_date - DATE
- location - VARCHAR(255)
- description - TEXT
- featured_artworks - TEXT

- **Sales Information Table**

- sale_id - INT(Primary Key)
- artwork_id - INT
- customer_id - INT
- sale_date - DATE
- sale_price - DECIMAL(10,2)
- payment_method - VARCHAR(50)

- **Commission Table**

- commission_id - INT(Primary Key)
- artwork_id - INT
- artist_id - INT
- commission_rate - DECIMAL(5,2)
- payment_date - DATE

- **Promotion Type & Potential Leads table**
 - lead_id - INT(Primary Key)
 - artwork_id - INT
 - customer_id - INT
 - contact_name - VARCHAR(255)
 - contact_email - VARCHAR(255)
 - contact_phone - VARCHAR(20)
 - interest_level - VARCHAR(50)
 - promotion_type_id - INT
 - follow_up_date - DATE
- **Return Artwork**
 - return_id - INT(Primary Key)
 - artwork_id - INT
 - customer_id - INT
 - return_date - DATE
 - reason_for_return - VARCHAR(255)
 - condition_of_artwork - VARCHAR(50)
 - resolution - VARCHAR(255)
- **Duration of Artwork**
 - artwork_id - INT
 - start_date - DATE
 - end_date - DATE
 - total_duration_days - INT
 - location_history - TEXT
- **Pricing of Artwork Table**
 - artwork_id - INT
 - effective_date - DATE
 - previous_price - DECIMAL(10,2)
 - current_price - DECIMAL(10,2)
 - reason_for_change - VARCHAR(255)
- **Status of Artwork Table**
 - status_id - INT(Primary Key)
 - status_name - VARCHAR(50)
 - description - TEXT
- **Promotion Type Table**
 - promotion_type_id - INT(Primary Key)
 - promotion_name - VARCHAR(50)
 - discount_percentage - DECIMAL(5,2)
 - description - TEXT
 - start_date - DATE
 - end_date - DATE

Relationships:

- One artist can have many artworks.
- One artwork can be created by one artist and owned by one artist or collector.
- One artist can participate in many shows.
- One show can feature works by many artists.
- One artwork can be included in many shows.
- One sale is associated with one artwork and one customer.
- One sale is made by one salesperson.
- One customer can make many purchases.

Conclusion

By designing a comprehensive database system, the art gallery can effectively manage its data, streamline operations, gain valuable insights, and improve customer relationships. Remember, this is just a starting point, and you can further refine the schema, use cases, testing strategies, and other aspects based on your specific requirements and the chosen DBMS technology.