

ASSIGNMENT (I)

**Art Gallery Management System**

**Question 1 :**

**Textual Description**

The Art Gallery Management System is a platform designed to develop a management system that catalogs artists, their works, information about the art gallery, exhibitions, and displays paintings' images for client viewing.

The Art Gallery Management System supports four types of users: Admin, Staff, Artists, and Clients. Admin oversees the system’s security and integrity, managing user accounts and permissions. Staff members handle inventory management, exhibition organization, and customer data management, with limited sales transaction processing capabilities. Artists manage their artwork details, including inventory status, revenue, and sales history, and can upload new artwork after authorization. Clients can view paintings and make purchases.

The system efficiently stores and manages artist information, artwork details, exhibition records, sales transactions, loan agreements, and client profiles. Each artist maintains their own personal data and can add new artworks after their completion. Galleries can host multiple exhibitions, allowing many artworks to be displayed for the clients. Any completed artwork can be sold or loaned as long as it is available. A portion of the artwork’s profit is added to the artist’s commission. Loaned artworks are properly tracked and monitored with a set expiry date for the loan.

The primary goal is to inform art enthusiasts about various exhibition details, including the artwork and artists, that are arranged by various galleries. Our system will make it easy for customers to get in touch with the staff to purchase their artwork. For administrators, staff, artists, and customers, there is a login page.

**Question 2 :**

**Core Data Storage Entities**

The core data storage entities in the Art Gallery Management System are:

* **Sales :**
* Details of artworks sold, including sale price, date of sale, and artist commission.
* Involves transactions where clients purchase artwork.
* **Loan :**
* Records of loan agreements, loan duration, monitoring status, and transport tracking for loaned artwork.
* Involves transactions where artworks are loaned to clients or other galleries.

All major transactions performed in the database are done when clients, staff, or artists interact with these entities.

**Question 3 :**

**Major Inflows of Data**

1. **User Registration and Login:**

User details are entered and stored in the Users table. Upon registration, artists update additional profile details.

1. **Artist Updates:**

Artists updating their own information with artist ID, personal details, social media profiles, and uploaded artwork details.

1. **Client Purchases:**

Clients making purchases with client ID, artwork ID, purchase date, and payment details.

1. **Artwork Creation:**

Artists upload details of their artworks, which are stored in the Artwork table.

1. **Gallery and Exhibition Management:**

Staff members create and update gallery and exhibition details.

1. **Sales and Loans:**

Sales and loan transactions are recorded, updating the relevant tables and the availability status of artworks.

**Major Outflows of Data**

1. **Sales Report by Artist:**

Summarizes sales data for each artist, including total sales and commissions.

1. **Exhibition Details:**

Lists details of exhibitions, including artworks displayed.

1. **Loan Status Report:**

Provides details of ongoing loans, including borrower information and expiry dates.

1. **Artwork Availability Report:**

Lists artworks that are available for sale or loan.

1. **Financial Summary Report:**

Summary of financial transactions, including total sales revenue, artist commissions, and loan income.

1. **Artist Performance Report:**

Report on artist activities, including uploaded artworks, sales history, total revenue, and commission earned.

1. **Client Purchase History Report:**

Detailed report of all client purchases, including artwork details, purchase dates, and payment methods.