EAST WEST UNIVERSITY

ART GALLERY MANAGEMENT SYSTEM

Course Name: Database Systems

Course code: 301

Section: 01

Group No: 07

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Art Gallery Management System

Objective:

This research would assist us in comprehending the operation of the Art Gallery management scheme. The "Art Gallery Management system" is an online application, which is used to display and sell artworks of artists. The main objective of creating an "Art Gallery Management" database project is to manage the details of the gallery, artists, artworks, exhibitions, and customers. The purpose of the project is to build a database that will help to create an innovative, efficient, easy-to-use, and powerful application to enable the artists to keep their artworks organized, nurture their customer relationships and save an astronomical amount of time.

Entity sets:

All entity sets of this database are strong entity sets. Because each entity set contains a primary key of its own.

- **Gallery:** Gallery keeps the information about the artists, their artworks, and the information of exhibitions. The administrator of the gallery can give access to the customers who want to purchase any artwork and who want to become the user of the art gallery. Whenever any customer has any query about artwork or artist or exhibition then he/she can send a message to the gallery to know the queries.

  List of attributes and their types:

Attribute Name	Type
gallery_id	Int
gallery_name	Varchar

- **Artist:** This entity set keeps all information about an artist like artist id, name, birthplace, age, etc. This entity creates paintings or artworks and sends them to the art gallery so that customers can buy their artwork.

  List of attributes and their types:

Attribute Name	Type
artist_id	Int
artist_name	Varchar
birth_place	Varchar
Age	Int
artist_image	Varchar
About	Varchar
style_of_art	Varchar

- **Artwork:** This entity will tell the customer about the paintings or arts that what the whole painting is about. The artwork entity not only helps the customers in getting information about the art or painting but also helps the customers to know more closely about the art or painting. This entity also permits the customer of adding any item or art from this entity set to the cart.

  List of attributes and their types:

Attribute Name	**Type**
art_code	Int
Name	Varchar
Title	Varchar
type_of_art	Varchar
Price	Numeric
Image	Varchar
year_made	Varchar

- **Exhibition:** The exhibition entity set will have details about the exhibition like time, date, place, artist details, the theme of the exhibition, and price of the ticket.

  List of attributes and their types:

Attribute Name	**Type**
exhibition_id	Int
Title	Varchar
Theme	Varchar
date(start_date,end_date)	Date
time(start_time,end_time)	Varchar
Place	Varchar
ticket_price	Numeric
e_artist_details	Varchar

- **Customer:** The customer entity set contains all the information of a customer like customer id, name, email, phone number, etc. A customer can give more than one phone number to the gallery.

  List of attributes and their types:

Attribute Name	**Type**
cust_id	Int
name(F_name,L_name)	Varchar
Phone	Int
Email	Varchar
address	Varchar

- **Cart:** Any customer can add numerous arts to the cart. The payment process will be done by customers through the payment module.

  List of attributes and their types:

Attribute Name	Type
cart_item_code	Int
product_name	Varchar
product_price	Numeric
product_quantity	Int
product_img	Varchar
total_price	Numeric

- **Payment module:** This section of the module will help in making the financial transactions so that the customer or user can pay them easily.

  List of attributes and their types:

Attribute Name	Type
payment_id	Int
payment_type	Varchar
products	Varchar
amount	Numeric
payment_date	Date

- **Users:** Any customer can become a user by doing the registration. A user can get a discount during purchasing any painting.

  List of attributes and their types:

Attribute Name	Type
user_id	Int
Email	Varchar
password	Varchar
discount	Numeric

- **Ticket:** The ticket entity set contains all information about the ticket like ticket id, ticket number, ticket quantity, price, expiring date, and the information about ticket buyers like ticket buyer's name, address, and email.

  List of attributes and their types:

Attribute Name	Type
ticket_id	Int
ticket_number	Varchar
exp_time	Varchar

quantity	Int
Price	Numeric
Name	Vrachar
address	Varchar
Email	Varchar

- **Message:** This entity set contains all message information. Customers can give messages to the gallery if they have any queries to know and get information through the message.

  List of attributes and their types:

Attribute Name	**Type**
msg_id	Int
msg_title	Varchar
msg_body	Varchar

Cardinality constraints and participation:

- **Artist – Gallery:**

  - **Cardinality constraint:** The cardinality constraint from the "artist" entity set to the "gallery" entity set is many–to–many. This means an artist may have more than one gallery, as well as a gallery may have more than one artist.
  - **Participation:** An artist may have a gallery or not. That's why the entities of the "artist" entity set participate partially in the "has" relationship. On the other side, a gallery must have an artist. That's why the entities of the "gallery" entity set participate totally in the "has" relationship.

- **Gallery – Exhibition:**

  - **Cardinality constraint:** The cardinality constraint from the "gallery" entity set to the "exhibition" entity set is one–to–many. This means a gallery may organize more than one exhibition, but an exhibition must be organized by a gallery.
  - **Participation:** A gallery may organize an exhibition or not. That's why the entities of the "gallery" entity set participate partially in the "organize" relationship. On the other side, an exhibition must be organized by a gallery. That's why the entities of the "exhibition" entity set participate totally in the "organize" relationship.

- **Gallery – Art_work:**

  - **Cardinality constraint:** The cardinality constraint from the "gallery" entity set to the "art_work" entity set is one–to–many. This means a gallery may contain more than one artwork, but an artwork must be contained by a gallery.
  - **Participation:** A gallery must contain artwork. That's why the entities of the "gallery" entity set participate totally in the "contains" relationship. Similarly, an artwork must be contained by a gallery. That's why the entities of the "artwork" entity set participate totally in the "contains" relationship.

- **Artist – Art_work:**

  - **Cardinality constraint:** The cardinality constraint from the "artist" entity set to the "art_work" entity set is one–to–many. This means an artist may create more than one artwork, but an artwork must be created by an artist.
  - **Participation:** An artist must create an art or painting or artwork. That's why the entities of the "artist" entity set participate totally in the "creates" relationship. Similarly, an artwork must be created by an artist. That's why the entities of the "art_work" entity set participate totally in the "creates" relationship.

- **Gallery – Customer:**

  - **Cardinality constraint:** The cardinality constraint from the "gallery" entity set to the "customer" entity set is one–to–many. This means a gallery may keep information of more than one customer, but a customer's information must be kept by a gallery.
  - **Participation:** A gallery must keep the information of the customer. That's why the entities of the "gallery" entity set participate totally in the "keep_info" relationship. Similarly, a customer's information must be kept by a gallery. That's why the entities of the "customer" entity set participate totally in the "keep_info" relationship.

- **Gallery – Message:**

  - **Cardinality constraint:** The cardinality constraint from the "gallery" entity set to the "message" entity set is one–to–many. This means a gallery may get more than one message from a customer, but a message must be received by only one gallery.

- **Participation:** A gallery may not get any messages from a customer to know about the gallery. That's why the entities of the "gallery" entity set participate partially in the "about_gallery" relationship. On the other hand, a message must be received by a gallery. That's why the entities of the "message" entity set participate totally in the "about_gallery" relationship.

- **Art_work – Customer:**

  - **Cardinality constraint:** The cardinality constraint from the "art_work" entity set to the "customer" entity set is many–to–many. This means an art_work may be accessed by more than one customer, as well as a customer may access more than one art_work.
  - **Participation:** An artwork may not be accessed by any customer. That's why the entities of the "art_work" entity set participate partially in the "access" relationship. On the other hand, if there is a customer then there must be an artwork that has been accessed by that customer. That's why the entities of the "customer" entity set participate totally in the "access" relationship.

- **Customer - Message:**

  - **Cardinality constraint:** The cardinality constraint from the "customer" entity set to the "message" entity set is one–to–many. This means a customer may send more than one message, but a message must be sent by a customer.
  - **Participation:** A customer may send a message or not. That's why the entities of the "customer" entity set participate partially in the "send_msg" relationship. On the other hand, If there is a message then there must be a customer that has sent it. That's why the entities of the "message" entity set participate totally in the "send_msg" relationship.

- **Art_work – Cart:**

  - **Cardinality constraint:** The cardinality constraint from the "art_work" entity set to the "cart" entity set is many–to–one. This means for buying an artwork, it must be added to one cart, but a cart may be added for more than one artwork.
  - **Participation:** An artwork may be added to a cart or not. That's why the entities of the "art_work" entity set participate partially in the "add_to_cart" relationship. On the other hand, If there is a cart then there must have an artwork that has been added to it. That's why the entities of the "cart" entity set participate totally in the "send_msg" relationship.

- **Cart – Payment_module:**

  - **Cardinality constraint:** The cardinality constraint from the "cart" entity set to the "payment_module" entity set is many-to-one. This means the items of a cart must be paid by one payment module, but a payment module may pay for more than one cart.
  - **Participation:** The items of a cart must have a payment module to pay. That's why the entities of the "cart" entity set participate totally in the "item_pay" relationship. Similarly, a payment module must have a cart of items that have been paid for. That's why the entities of the "payment_module" entity set participate totally in the "item_pay" relationship.

- **Customer – Payment_module:**

  - **Cardinality constraint:** The cardinality constraint from the "customer" entity set to the "payment_module" entity set is one–to–many. This means a customer may have more than one payment module, but a payment module must belong to one customer.
  - **Participation:** A customer may have a payment module to pay or not. That's why the entities of the "customer" entity set participate partially in the "pay_via" relationship. On the other hand, If there is a payment module then there must be a customer that is going to pay. That's why the entities of the "payment_module" entity set participate totally in the "pay_via" relationship.

- **Customer – Users:**

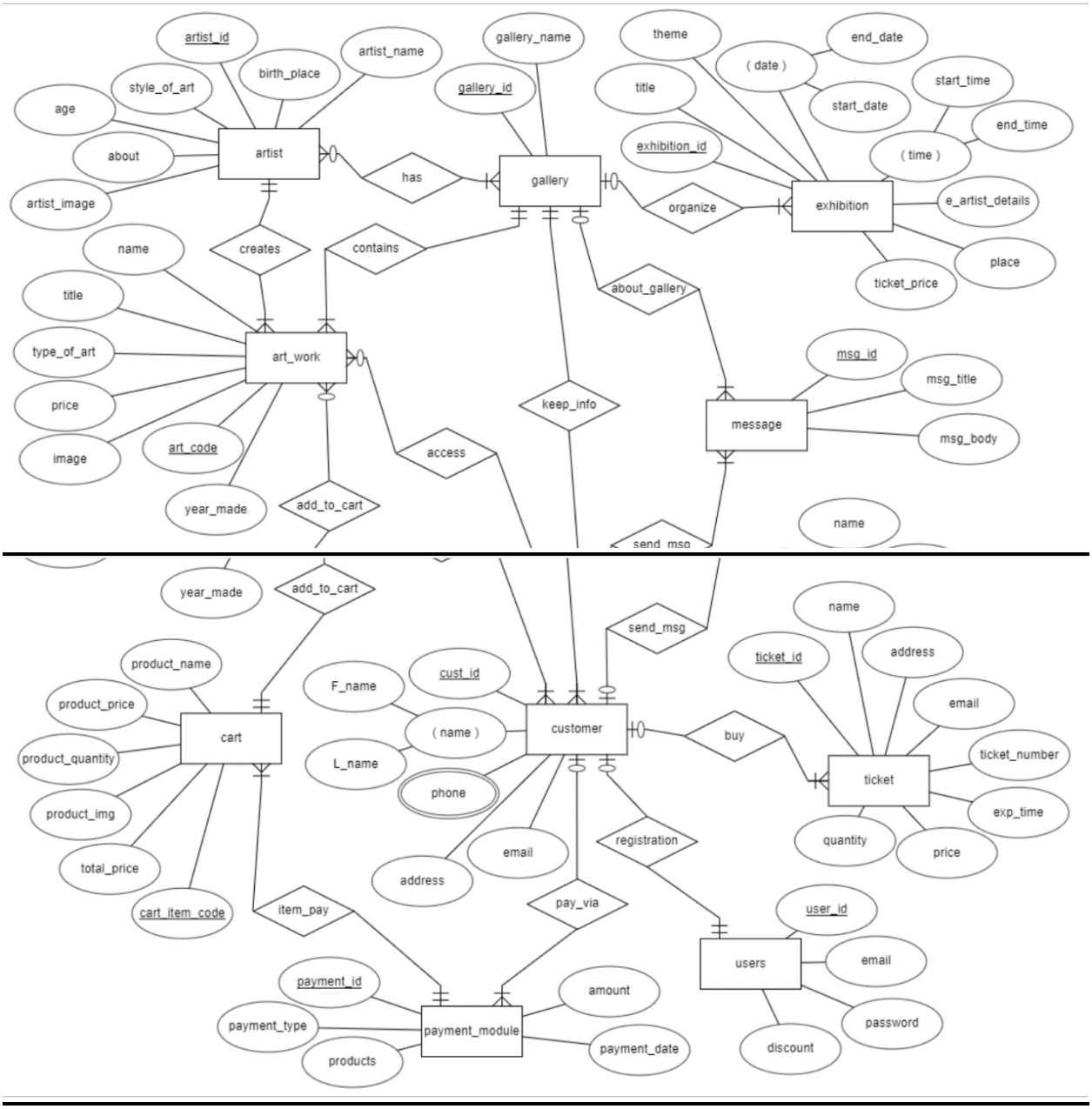
  - **Cardinality constraint:** The cardinality constraint from the "customer" entity set to the "users" entity set is one–to–one. This means a customer can become one user, as well as a user must have been one customer.
  - **Participation:** A customer may become a user by doing registration or not. That's why the entities of the "customer" entity set participate partially in the "registration" relationship. On the other hand, If any person is a user then he/she must have been a customer also. That's why the entities of the "users" entity set participate totally in the "registration" relationship.

- **Customer – Ticket:**

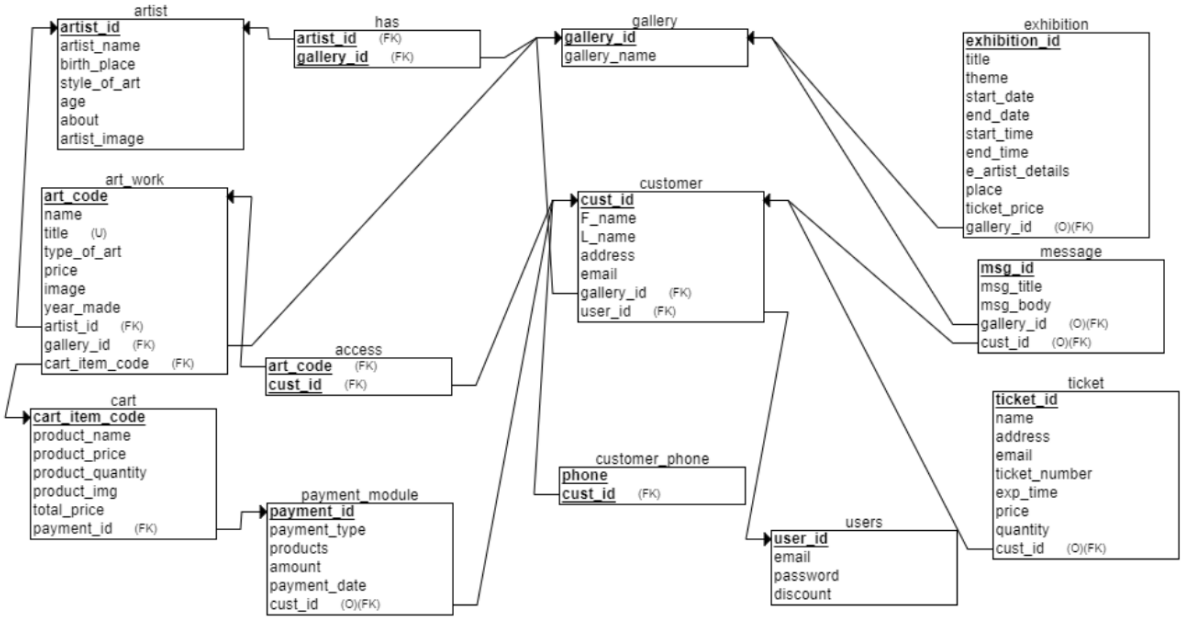
  - **Cardinality constraint:** The cardinality constraint from the "customer" entity set to the "ticket" entity set is one-to-many. This means a customer can buy more than one ticket, but a ticket must be bought by one customer.
  - **Participation:** A customer may buy a ticket or not. That's why the entities of the "customer" entity set participate partially in the "buy" relationship. On the other

hand, If there is a ticket then there must be a customer that has bought it. That's why the entities of the "ticket" entity set participate totally in the "registration" relationship.

ER Diagram:



The generated Relational Schema from the ER diagram:



The generated SQL schema from the ER diagram:

```
CREATE TABLE artist
(
  artist_name VARCHAR(100) NOT NULL,
  birth_place VARCHAR(200) NOT NULL,
  artist_id INT NOT NULL,
  style_of_art VARCHAR(1000) NOT NULL,
  age INT NOT NULL,
  about VARCHAR(2000) NOT NULL,
  artist_image VARCHAR(1000) NOT NULL,
  PRIMARY KEY (artist_id)
);
CREATE TABLE gallery
(
  gallery_id INT NOT NULL,
```

```
  gallery_name VARCHAR(100) NOT NULL,
  PRIMARY KEY (gallery_id)
);
CREATE TABLE exhibition
(
  exhibition_id INT NOT NULL,
  title VARCHAR(1000) NOT NULL,
  theme VARCHAR(1000) NOT NULL,
  start_date DATE NOT NULL,
  end_date DATE NOT NULL,
  start_time VARCHAR(20) NOT NULL,
  end_time VARCHAR(20) NOT NULL,
  e_artist_details VARCHAR(2000) NOT NULL,
  place VARCHAR(200) NOT NULL,
  ticket_price NUMERIC(9,2) NOT NULL,
  gallery_id INT,
  PRIMARY KEY (exhibition_id),
  FOREIGN KEY (gallery_id) REFERENCES gallery(gallery_id)
);
CREATE TABLE users
(
  user_id INT NOT NULL,
  email VARCHAR(100) NOT NULL,
  password VARCHAR(100) NOT NULL,
  discount NUMERIC(7,2) NOT NULL,
  PRIMARY KEY (user_id)
);
```

```
CREATE TABLE has
(
  artist_id INT NOT NULL,
  gallery_id INT NOT NULL,
  PRIMARY KEY (artist_id, gallery_id),
  FOREIGN KEY (artist_id) REFERENCES artist(artist_id),
  FOREIGN KEY (gallery_id) REFERENCES gallery(gallery_id)
);
CREATE TABLE customer
(
  cust_id INT NOT NULL,
  F_name VARCHAR(100) NOT NULL,
  L_name VARCHAR(100) NOT NULL,
  address VARCHAR(200) NOT NULL,
  email VARCHAR(100) NOT NULL,
  gallery_id INT NOT NULL,
  user_id INT NOT NULL,
  PRIMARY KEY (cust_id),
  FOREIGN KEY (gallery_id) REFERENCES gallery(gallery_id),
  FOREIGN KEY (user_id) REFERENCES users(user_id)
);
CREATE TABLE ticket
(
  ticket_id INT NOT NULL,
  name VARCHAR(200) NOT NULL,
  address VARCHAR(500) NOT NULL,
  email VARCHAR(100) NOT NULL,
  ticket_number VARCHAR(100) NOT NULL,
```

```
  exp_time VARCHAR(100) NOT NULL,
  price NUMERIC(9,2) NOT NULL,
  quantity INT NOT NULL,
  cust_id INT,
  PRIMARY KEY (ticket_id),
  FOREIGN KEY (cust_id) REFERENCES customer(cust_id)
);
CREATE TABLE payment_module
(
  payment_id INT NOT NULL,
  payment_type VARCHAR(500) NOT NULL,
  products VARCHAR(1000) NOT NULL,
  amount NUMERIC(9,2) NOT NULL,
  payment_date DATE NOT NULL,
  cust_id INT,
  PRIMARY KEY (payment_id),
  FOREIGN KEY (cust_id) REFERENCES customer(cust_id)
);
CREATE TABLE customer_phone
(
  phone INT NOT NULL,
  cust_id INT NOT NULL,
  PRIMARY KEY (phone, cust_id),
  FOREIGN KEY (cust_id) REFERENCES customer(cust_id)
);
CREATE TABLE message
(
  msg_id INT NOT NULL,
```

```
  msg_title VARCHAR(1000) NOT NULL,
  msg_body VARCHAR(2000) NOT NULL,
  gallery_id INT,
  cust_id INT,
  PRIMARY KEY (msg_id),
  FOREIGN KEY (gallery_id) REFERENCES gallery(gallery_id),
  FOREIGN KEY (cust_id) REFERENCES customer(cust_id)
);
CREATE TABLE cart
(
  product_name VARCHAR(200) NOT NULL,
  product_price NUMERIC(9,2) NOT NULL,
  product_quantity INT NOT NULL,
  product_img VARCHAR(1000) NOT NULL,
  total_price NUMERIC(9,2) NOT NULL,
  cart_item_code INT NOT NULL,
  payment_id INT NOT NULL,
  PRIMARY KEY (cart_item_code),
  FOREIGN KEY (payment_id) REFERENCES payment_module(payment_id)
);
CREATE TABLE art_work
(
  name VARCHAR(200) NOT NULL,
  title VARCHAR(1000) NOT NULL,
  type_of_art VARCHAR(1000) NOT NULL,
  price NUMERIC(9,2) NOT NULL,
  image VARCHAR(1000) NOT NULL,
  art_code INT NOT NULL,
```

```
  year_made VARCHAR(100) NOT NULL,
  artist_id INT NOT NULL,
  gallery_id INT NOT NULL,
  cart_item_code INT NOT NULL,
  PRIMARY KEY (art_code),
  FOREIGN KEY (artist_id) REFERENCES artist(artist_id),
  FOREIGN KEY (gallery_id) REFERENCES gallery(gallery_id),
  FOREIGN KEY (cart_item_code) REFERENCES cart(cart_item_code),
  UNIQUE (title)
);
CREATE TABLE access
(
  art_code INT NOT NULL,
  cust_id INT NOT NULL,
  PRIMARY KEY (art_code, cust_id),
  FOREIGN KEY (art_code) REFERENCES art_work(art_code),
  FOREIGN KEY (cust_id) REFERENCES customer(cust_id)
);
```

Insertion of sample values:

Gallery:

INSERT INTO `gallery` (`gallery_id`, `gallery_name`) VALUES (1, 'National art gallery');

Artist:

INSERT INTO `artist` (`artist_name`, `birth_place`, `artist_id`, `style_of_art`, `age`, `about`, `artist_image`) VALUES

('Irena Belcovski', 'Canada', 12, 'Abstract, Modern, Canvas, Cubism', 35, 'Irena Belcovski is an internationally recognized contemporary abstract painter. ', 'artist1.jpg'),

('Birgit Huttemann-Holz', 'Detroit, MI, United States', 14, 'Abstract, Modern, Real life', 54, 'Birgit\'s energetic works show a lush world, where nature is in constant celebration. Orchids, verdant gardens, and imaginary spaces become synonym with sanctuaries. ', 'artist2.jpg'),

('Evan Shevaski', 'Italy', 22, 'Sketch,Canvas,Abstract', 56, 'Evan Shevaski is an internationally recognized contemporary abstract painter.', 'artist3.jpg');

artist_name	birth_place	artist_id	style_of_art	age	about	artist_image
Irena Belcovski	Canada	12	Abstract, Modern, Canvas, Cubism	35	Irena Belcovski is an internationally recognized c...	artist1.jpg
Birgit Huttemann-Holz	Detroit, MI, United States	14	Abstract, Modern, Real life	54	Birgit's energetic works show a lush world, where ...	artist2.jpg
Evan Shevaski	Italy	22	Sketch,Canvas,Abstract	56	Evan Shevaski is an internationally recognized con...	artist3.jpg

Exhibition:

INSERT INTO `exhibition` (`exhibition_id`, `title`, `theme`, `start_date`, `end_date`, `start_time`, `end_time`, `e_artist_details`, `place`, `ticket_price`, `gallery_id`) VALUES

(1, 'Gaze', 'Canvas, Figure, Cubism', '2021-10-01', '2021-10-30', '3 p.m', '9 p.m', 'Irfan Onurmen\'s first solo exhibition \"Gaze\"\r\nIrfan Onurmen\'s Gaze Series\' large sized portraits give way to psychological and political readings, relate to the anonymous yet familiar characters and feelings to reference to our external and internal worlds.', 'Uk, 4 Mandeville Place, W1U 2BG.London', '300.00', 1),

(2, 'Revolution', 'Modern Art', '2021-10-02', '2021-10-30', '3 p.m', '9 p.m', 'Birgit\'s energetic works show a lush world, where nature is in constant celebration. ', 'Saskatchewan,Canada', '200.00', 1),

(3, 'Imaginary World', 'Visualization', '2021-10-07', '2021-11-07', '3 p.m', '9 p.m', 'Evan Shevaski is an internationally recognized contemporary abstract painter. His work has been exhibited by numerous independent French galleries and is found in private collections the world over.', 'Wilington, Newzealand', '350.00', 1);

exhibition_id	title	theme	start_date	end_date	start_time	end_time	e_artist_details	place	ticket_price	gallery_id
1	Gaze	Canvas, Figure, Cubism	2021-10-01	2021-10-30	3 p.m	9 p.m	Irfan Onurmen's first solo exhibition "Gaze" Irfa...	Uk, 4 Mandeville Place, W1U 2BG.London	300.00	1
2	Revolution	Modern Art	2021-10-02	2021-10-30	3 p.m	9 p.m	Birgit's energetic works show a lush world, where ...	Saskatchewan,Canada	200.00	1
3	Imaginary World	Visualization	2021-10-07	2021-11-07	3 p.m	9 p.m	Evan Shevaski is an internationally recognized con...	Wilington, Newzealand	350.00	1

Has:

INSERT INTO `has` (`artist_id`, `gallery_id`) VALUES

(12, 1),

(14, 1),

(22, 1);

artist_id	gallery_id
12	1
14	1
22	1

Users:

INSERT INTO `users` (`user_id`, `email`, `password`, `discount`) VALUES

(7, 'mahbub56@gmail.com', 'hasan56mahbub', '100.00'),

(18, 'nnahidasultana559@gmail.com', 'nnahidhgfjgsd', '100.00'),

(19, 'nazifabhuiyan19@gmail.com', 'bhuiyannazifa', '100.00');

user_id	email	password	discount
7	mahbub56@gmail.com	hasan56mahbub	100.00
18	nnahidasultana559@gmail.com	nnahidhgfjgsd	100.00
19	nazifabhuiyan19@gmail.com	bhuiyannazifa	100.00

Customer:

INSERT INTO `customer` (`cust_id`, `F_name`, `L_name`, `address`, `email`, `gallery_id`, `user_id`) VALUES

(3, 'Mahbub', 'Hasan', '45,dholpur', 'mahbub56@gmail.com', 1, 7),

(7, 'Nazifa', 'Bhuiyan', '30,bashabo,Dhaka', 'nazifabhuiyan19@gmail.com', 1, 19),

(10, 'Nahida', 'sultana', '57,Shantibagh,dhaka', 'nnahidasultana559@gmail.com', 1, 18);

cust_id	F_name	L_name	address	email	gallery_id	user_id
3	Mahbub	Hasan	45,dholpur	mahbub56@gmail.com	1	7
7	Nazifa	Bhuiyan	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	1	19
10	Nahida	sultana	57,Shantibagh,dhaka	nnahidasultana559@gmail.com	1	18

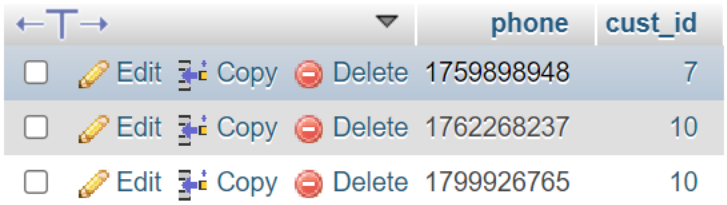
Customer_phone:

INSERT INTO `customer_phone` (`phone`, `cust_id`) VALUES

(1759898948, 7),

(1762268237, 10),

(1799926765, 10);



	phone	cust_id
Edit Copy Delete	1759898948	7
Edit Copy Delete	1762268237	10
Edit Copy Delete	1799926765	10

Ticket:

INSERT INTO `ticket` (`ticket_id`, `name`, `address`, `email`, `ticket_number`, `exp_time`, `price`, `quantity`, `cust_id`) VALUES

(7, 'Nahida', '57,Shantibagh,Dhaka', 'nnahidasultana559@gmail.com', '#AB-100', '2021-10-30', '700.00', 2, 10),

(10, 'Mahbub', '45,dholpur', 'mahbub56@gmail.com', 'Abcd-21', '2021-10-30', '400.00', 2, 3),

(20, 'Nazifa', '30,bashabo,Dhaka', 'nazifabhuiyan19@gmail.com', '#AB-101', '2021-11-06', '900.00', 3, 7);

ticket_id	name	address	email	ticket_number	exp_time	price	quantity	cust_id
7	Nahida	57,Shantibagh,Dhaka	nnahidasultana559@gmail.com	#AB-100	2021-10-30	700.00	2	10
10	Mahbub	45,dholpur	mahbub56@gmail.com	Abcd-21	2021-10-30	400.00	2	3
20	Nazifa	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	#AB-101	2021-11-06	900.00	3	7

Message:

INSERT INTO `message` (`msg_id`, `msg_title`, `msg_body`, `gallery_id`, `cust_id`) VALUES

(3, 'About exhibition', 'Is there any chance to expand the exhibition end date?', 1, 10),

(7, 'About artwork', 'What is the purpose of the gallery artwork to the people?', 1, 3),

(13, 'About artist', 'Please, give me the artist details.', 1, 7);

msg_id	msg_title	msg_body	gallery_id	cust_id
3	About exhibition	Is there any chance to expand the exhibition end d...	1	10
7	About artwork	What is the purpose of the gallery artwork to the ...	1	3
13	About artist	Please, give me the artist details.	1	7

Payment_module:

INSERT INTO `payment_module` (`payment_id`, `payment_type`, `products`, `amount`, `payment_date`, `cust_id`) VALUES

(11, 'Card', 'Imaginary Dream-1', '4400.00', '2021-09-04', 3),

(15, 'bank', 'Revolution-1', '1650.00', '2021-09-05', 10),

(30, 'net banking', 'where time does not exist II', '1500.00', '2021-09-06', 7);

payment_id	payment_type	products	amount	payment_date	cust_id
11	Card	Imaginary Dream-1	4400.00	2021-09-04	3
15	bank	Revolution-1	1650.00	2021-09-05	10
30	net banking	where time does not exist II	1500.00	2021-09-06	7

Cart:

INSERT INTO `cart` (`product_name`, `product_price`, `product_quantity`, `product_img`, `total_price`, `cart_item_code`, `payment_id`) VALUES

('Imaginary Dream 1', '2200.00', 2, 'acrylic.jpg', '4400.00', 1, 11),

('Revolution-1', '1500.00', 1, 'modern1.jpg', '1500.00', 3, 15),

('where time does not exist II', '1650.00', 1, 'modern2.jpg', '1650.00', 7, 30);

product_name	product_price	product_quantity	product_img	total_price	cart_item_code	payment_id
Imaginary Dream 1	2200.00	2	acrylic.jpg	4400.00	1	11
Revolution-1	1500.00	1	modern1.jpg	1500.00	3	15
where time does not exist II	1650.00	1	modern2.jpg	1650.00	7	30

Art_work:

INSERT INTO `art_work` (`name`, `title`, `type_of_art`, `price`, `image`, `art_code`, `year_made`, `artist_id`, `gallery_id`, `cart_item_code`) VALUES

('Imaginary Dream 1', 'BETWEEN THE WORLD AND ME', 'Canvas', '2200.00', 'acrylic.jpg', 15, '1990-07-07', 12, 1, 1),

('Revolution-1', 'revolution Iranian modern painting', 'Modern Art', '1500.00', 'modern1.jpg', 20, '1996-12-30', 14, 1, 3),

('where time does not exist II', 'the title does not exist', 'Sketch', '1650.00', 'modern2.jpg', 25, '1980-04-26', 22, 1, 7);

name	title	type_of_art	price	image	art_code	year_made	artist_id	gallery_id	cart_item_code
Imaginary Dream 1	BETWEEN THE WORLD AND ME	Canvas	2200.00	acrylic.jpg	15	1990-07-07	12	1	1
Revolution-1	revolution Iranian modern painting	Modern Art	1500.00	modern1.jpg	20	1996-12-30	14	1	3
where time does not exist II	the title does not exist	Sketch	1650.00	modern2.jpg	25	1980-04-26	22	1	7

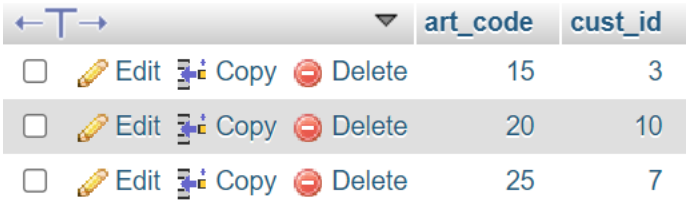
Access:

INSERT INTO `access` (`art_code`, `cust_id`) VALUES

(15, 3),

(20, 10),

(25, 7);



	art_code	cust_id
Edit Copy Delete	15	3
Edit Copy Delete	20	10
Edit Copy Delete	25	7

Join Queries:

Ques1: Find all artists who work in the art gallery.

- SELECT * FROM `artist` INNER JOIN art_work WHERE artist.artist_id = art_work.artist_id

Ques2. Find all customers who buy tickets from the art gallery

- SELECT * FROM `customer` NATURAL JOIN ticket WHERE customer.cust_id=ticket.cust_id

cust_id	address	email	F_name	L_name	gallery_id	user_id	ticket_id	name	ticket_number	exp_time	pric
10	57,Shantibagh,dhaka	nnahidasultana559@gmail.com	Nahida	sultana	1	18	7	Nahida	#AB-100	2021-10-30	700.0
3	45,dholpur	mahbub56@gmail.com	Mahbub	Hasan	1	7	10	Mahbub	Abcd-21	2021-10-30	400.0
7	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	Nazifa	Bhuiyan	1	19	20	Nazifa	#AB-101	2021-11-06	900.0

Ques3. Find all customer phone numbers from the art gallery.

- SELECT * FROM `customer` INNER JOIN customer_phone WHERE customer.cust_id= customer_phone.cust_id

cust_id	F_name	L_name	address	email	gallery_id	user_id	phone	cust_id
7	Nazifa	Bhuiyan	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	1	19	1759898948	7
10	Nahida	sultana	57,Shantibagh,dhaka	nnahidasultana559@gmail.com	1	18	1762268237	10
10	Nahida	sultana	57,Shantibagh,dhaka	nnahidasultana559@gmail.com	1	18	1799926765	10

Ques4. Find all customers who are users.

- SELECT *FROM customer NATURAL LEFT OUTER JOIN users

email	user_id	cust_id	F_name	L_name	address	gallery_id	password	discount
mahbub56@gmail.com	7	3	Mahbub	Hasan	45,dholpur	1	hasan56mahbub	100.00
nazifabhuiyan19@gmail.com	19	7	Nazifa	Bhuiyan	30,bashabo,Dhaka	1	bhuiyannazifa	100.00
nnahidasultana559@gmail.com	18	10	Nahida	sultana	57,Shantibagh,dhaka	1	nnahidhgfjgsd	100.00

Update & Delete Queries:

1) ticket:

Ques: Update the email of customer ticket as nahida55@gmail.com and address is 892/A,Shahidbagh whose ticket id is 7.

- UPDATE ticket SET email='nahida55@gmail.com', address='892/A,Shahidbagh' WHERE ticket_id=7;

ticket_id	name	address	email	ticket_number	exp_time	price	quantity	cust_id
7	Nahida	892/A,Shahidbagh	nahida55@gmail.com	#AB-100	2021-10-30	700.00	2	10
10	Mahbub	45,dholpur	mahbub56@gmail.com	Abcd-21	2021-10-30	400.00	2	3
20	Nazifa	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	#AB-101	2021-11-06	900.00	3	7

Ques: Delete all tuples of ticket whose ticket number is Abcd-21 and ticket id is 10.

- DELETE FROM ticket WHERE ticket_number='Abcd-21' AND ticket_id=10;

ticket_id	name	address	email	ticket_number	exp_time	price	quantity	cust_id
7	Nahida	892/A,Shahidbagh	nahida55@gmail.com	#AB-100	2021-10-30	700.00	2	10
20	Nazifa	30,bashabo,Dhaka	nazifabhuiyan19@gmail.com	#AB-101	2021-11-06	900.00	3	7

2) customer_phone

Ques: Update the phone number of the customer as 1378277871 whose customer id is 7.

- UPDATE customer_phone SET phone=1378277871 WHERE cust_id=7;

	phone	cust_id
Edit Copy Delete	1378277871	7
Edit Copy Delete	1762268237	10
Edit Copy Delete	1799926765	10

Ques: Delete all tuples of a customer phone whose phone number is 1762268237 and customer id is 10.

- DELETE FROM customer_phone WHERE phone=1762268237 AND cust_id=10;

	phone	cust_id
Edit Copy Delete	1378277871	7
Edit Copy Delete	1799926765	10

3) message

Ques: Update the title of the message as About exhibition and body of message Please, give me details on the ticket price whose message id is 13.

- UPDATE message SET msg_title='About exhibition',msg_body='Please, give me details on the ticket price' WHERE msg_id=13;

msg_id	msg_title	msg_body	gallery_id	cust_id
3	About exhibition	Is there any chance to expand the exhibition end d...	1	10
7	About artwork	What is the purpose of the gallery artwork to the ...	1	3
13	About exhibition	Please, give me details on the ticket price	1	7

Ques: Delete all tuples of a message whose title is About exhibition and message id is 3.

- DELETE FROM message WHERE msg_title='About exhibition' AND msg_id=3;

msg_id	msg_title	msg_body	gallery_id	cust_id
7	About artwork	What is the purpose of the gallery artwork to the ...	1	3
13	About exhibition	Please, give me details on the ticket price	1	7

4) exhibition

Ques: Update the start date of the exhibition as 2021-10-11 and the place is Shilpokola Academy, Dhaka whose exhibition id is 1.

- UPDATE exhibition SET start_date='2021-10-11',place='Shilpokola Academy,Dhaka' WHERE exhibition_id=1;

exhibition_id	title	theme	start_date	end_date	start_time	end_time	e_artist_details	place	ticket_price	gallery_id
1	Gaze	Canvas, Figure, Cubism	2021-10-11	2021-10-30	3 p.m	9 p.m	Irfan Onurmen's first solo exhibition "Gaze" Irfa...	Shilpokola Academy,Dhaka	300.00	1
2	Revolution	Modern Art	2021-10-02	2021-10-30	3 p.m	9 p.m	Birgit's energetic works show a lush world, where ...	Saskatchewan,Canada	200.00	1
3	Imaginary World	Visualization	2021-10-07	2021-11-07	3 p.m	9 p.m	Evan Shevaski is an internationally recognized con...	Wilington, Newzealand	350.00	1

Ques: Delete all tuples of an exhibition whose title is Imaginary World and exhibition id is 3.

- DELETE FROM exhibition WHERE title='Imaginary World' AND exhibition_id=3;

exhibition_id	title	theme	start_date	end_date	start_time	end_time	e_artist_details	place	ticket_price	gallery_id
1	Gaze	Canvas, Figure, Cubism	2021-10-11	2021-10-30	3 p.m	9 p.m	Irfan Onurmen's first solo exhibition "Gaze" Irfa...	Shilpokola Academy,Dhaka	300.00	1
2	Revolution	Modern Art	2021-10-02	2021-10-30	3 p.m	9 p.m	Birgit's energetic works show a lush world, where ...	Saskatchewan,Canada	200.00	1