# The Gallery Shop

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# Description of Company:

For more than a decade, the store named "The Gallery Shop" has been one of the top stores in the area., selling art works from several artists. Because of the huge recognition of the store, the manager, Demetra Ioannidou, decided to expand the store into a much bigger online database store to save money, space and time, where the client can choose the art work, he/she wants.

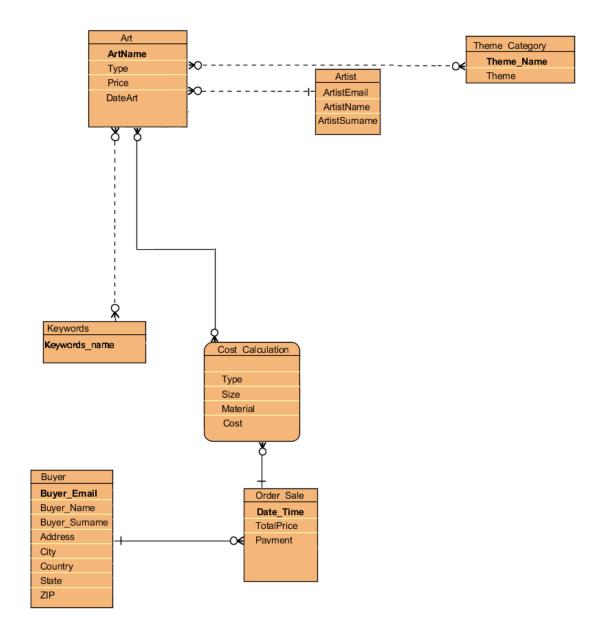
In that online database, the clients can choose and order how they want their art look like. An art can stand out by its name, which belongs to a specific artist. The clients have the opportunity to choose the size and the type of the art(s) they want to order. For their ease, there is a search bar where, by adding keywords, they can easily find the category they want to search for, or the specific art they want to order. Clients can order any number, of digital or printout copies of the art, they want.

The company has to store the corresponding information of their stock. In order to aim this, they have to keep records for each artist (Artist's Name, Surname, Email and his/her art(s)).

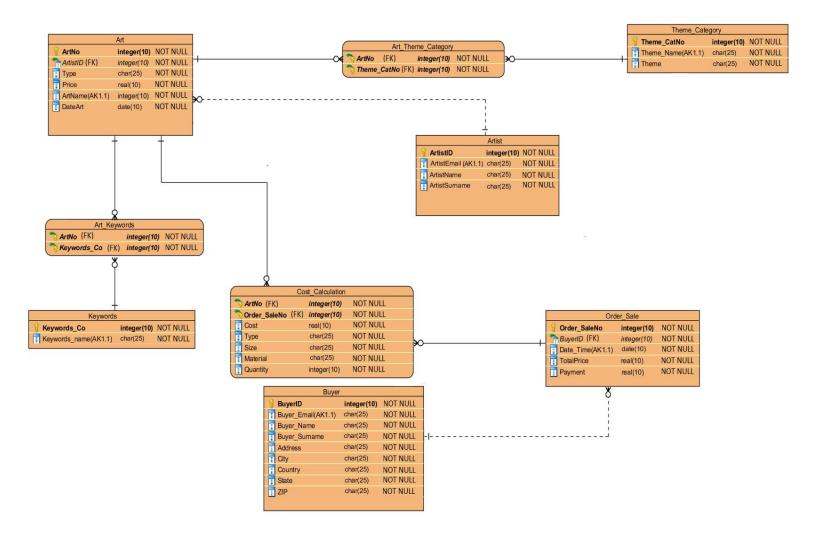
The one thing that has to be managed by each specific client, is the personal account that they have to create in order to make this database work. The client has to add his/her personal email, First and Last name, Address, City, Country, State and Zip Code, so the company's competent transport workers can reach the buyer, and of course deliver the appropriate art(s) of his/her choice. If a client doen't want to buy something from the online store, the personal account does not have to be issue, since it is optional, if and only if there is no order to be accomplished.

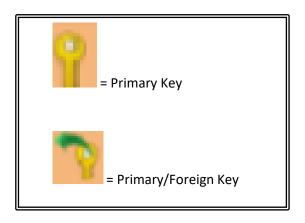
Another important statement that has to be set up is the payment procedure. The buyers, except from the art(s) they want to order, they have to choose the quantity, type and size. Thanks to that, they order can be completed, where automatically by the system will be executed a specific date and time. By that the client we know when the order was completed. Finally, the final cost of the order will be shaped and the client will have the ability to confirm or to cancel the order.

# Data Model (ERM)



# Database Design





# Minimum Cardinality Tables:

- Parent (Art)
- Child (Art\_Theme\_Category )

|        | Actions On Parent               | Actions On Child                |
|--------|---------------------------------|---------------------------------|
| Insert | None                            | Get an Art (Parent)             |
| Modify | Prohibit – Art uses a Surrogate | Prohibit – Art uses a Surrogate |
|        | Key (ArtNo)                     | Key (ArtNo)                     |
| Delete | Prohibit – can't delete an Art  | None                            |
|        | (Business Rule)*                |                                 |

<sup>\*</sup>Business Rule: An Art cannot change a Theme Category (it already belongs to one)

- Parent (Art\_Theme\_Category )
- Child ( Theme\_Category )

| Parent Required | Actions On Parent              | Actions On Child              |  |
|-----------------|--------------------------------|-------------------------------|--|
| Insert          | None                           | Get an Art_Theme_Category     |  |
|                 |                                | (Parent)                      |  |
| Modify          | Prohibit – Theme_Category uses | Prohibit – Theme_Category use |  |
|                 | a Surrogate Key (Theme_CaNo)   | a Surrogate Key (Theme_CaNo)  |  |
| Delete          | Prohibit – can't delete a      | None                          |  |
|                 | Theme_Category (Business       |                               |  |
|                 | Rule)*                         |                               |  |

<sup>\*</sup> Business Rule: An Art has fixed Theme Categories, so it cannot be changed.

- Parent(Art)
- Child( Art\_Keywords)

| Parent Required | Actions On Parent               | Actions On Child                |
|-----------------|---------------------------------|---------------------------------|
| Insert          | None                            | Get an Art (Parent)             |
| Modify          | Prohibit – Art uses a Surrogate | Prohibit – Art uses a Surrogate |
|                 | Key (ArtNo)                     | Key (ArtNo)                     |
| Delete          | Prohibit – can't delete an Art  | None                            |
|                 | (Business Rule)*                |                                 |

<sup>\*</sup> Business Rule: An Art has fixed keywords, so it cannot be changed.

- Parent (Art\_Keywords )
- Child (Keywords)

| Parent Required | Actions On Parent                | Actions On Child            |
|-----------------|----------------------------------|-----------------------------|
| Insert          | None                             | Get Keywords (Parent)       |
| Modify          | Prohibit – Keywords uses a       | Prohibit – Keywords uses a  |
|                 | Surrogate Key (Keywords_Co)      | Surrogate Key (Keywords_Co) |
| Delete          | Prohibit – can't delete Keywords | None                        |
|                 | (Business Rule)*                 |                             |

<sup>\*</sup>Business Rule: An Art has fixed keywords, so it cannot be changed.

- Parent (Art)
- Child (Cost\_Calculation)

| Parent Required | Action On Parent                                | Action On Child                                |
|-----------------|-------------------------------------------------|------------------------------------------------|
| Insert          | None                                            | Get an Art (Parent)                            |
| Modify          | Prohibit – Art uses a Surrogate<br>Key (ArtNo)  | Prohibit – Art uses a Surrogate<br>Key (ArtNo) |
| Delete          | Prohibit – can't delete an Art (business rule)* | None                                           |

<sup>\*</sup> Business Rule: An Art has a fixed cost, so it cannot be changed.

- Parent (Cost\_Calculation )
- Child (Order\_Sale)

| Parent Required | Action On Parent                                    | Action On Child              |  |  |  |
|-----------------|-----------------------------------------------------|------------------------------|--|--|--|
| Insert          | None                                                | Get an Order_Sale            |  |  |  |
| Modify          | Prohibit – Order_Sale uses a                        | Prohibit – Order_Sale uses a |  |  |  |
|                 | Surrogate Key (Order_SaleNo) Surrogate Key (Order_S |                              |  |  |  |
| Delete          | Allow if no Cost_Calculation                        | None                         |  |  |  |
|                 | (Business Rule)*                                    |                              |  |  |  |

<sup>\*</sup> Business Rule: The Order can be deleted if the is no cost calculation.

- Parent (Order\_Sale)
- Child ( Buyer )

| Parent Required | Action On Parent                 | Action On Child         |
|-----------------|----------------------------------|-------------------------|
| Insert          | None                             | Get a Buyer             |
| Modify          | Prohibit – Buyer uses a          | Prohibit – Buyer uses a |
|                 | Surrogate Key (BuyerID)          | Surrogate Key (BuyerID) |
| Delete          | Allow if no Order_Sale (Business | None                    |
|                 | Rule)                            |                         |

<sup>\*</sup> Business Rule: The Buyer can delete his/her order.

- Parent (Art)
- Child (Artist )

| Parent Required | Action On Parent                                     | Action On Child                                      |
|-----------------|------------------------------------------------------|------------------------------------------------------|
| Insert          | None                                                 | Get an Artist                                        |
| Modify          | Prohibit – Artist uses a Surrogate<br>Key (ArtistID) | Prohibit – Artist uses a Surrogate<br>Key (ArtistID) |
| Delete          | Prohibit – can't delete an Art (business rule)*      | None                                                 |

<sup>\*</sup>Business Rule: arts now are owned by the company. The Artist can't delete them.

# Table Default Values:

| Table              | Column        | Default Value                   |
|--------------------|---------------|---------------------------------|
| Art                | ArtNo         | Primary Key                     |
| Art                | ArtistID      | Foreign Key (FK)                |
| Art                | Туре          | None                            |
| Art                | Price         | None                            |
| Art                | Date          | None                            |
|                    |               |                                 |
| Theme_Category     | Theme_CatNo   | Primary Key                     |
| Theme_Category     | Theme_Name    | Alternative Key(AK1.1)          |
| Theme_Category     | Theme         | None                            |
|                    |               |                                 |
| Art_Theme_Category | ArtNo         | Foreign Key/Primary Key         |
| Art_Theme_Category | Theme_CatNo   | Foreign Key/Primary             |
|                    | _             |                                 |
| Artist             | ArtistEmail   | Primary Key                     |
| Artist             | Name          |                                 |
| Artist             | Surname       |                                 |
| Artist             | ArtName       |                                 |
|                    |               |                                 |
| Art_Keywords       | ArtNo         | Foreign Key(FK)/Primary Key(PK) |
| Art_Keywords       | Keywords_Co   | Foreign Key(FK)/Primary Key(PK) |
|                    |               |                                 |
| Keywords           | Keywords_Co   | Primary Key                     |
| Keywords           | Keywords_name | Alternative Key(AK1.1)          |
|                    |               |                                 |
| Cost_Calculation   | ArtNo         | Primary Key                     |
| Cost_Calculation   | Order_SaleNo  | Foreign Key                     |
| Cost_Calculation   | Cost          | None                            |
| Cost_Calculation   | Туре          | None                            |
| Cost_Calculation   | Size          | None                            |
| Cost_Calculation   | Material      | None                            |
| Cost_Calculation   | Quantity      | None                            |
|                    |               |                                 |
| Buyer              | BuyerID       | Primary Key                     |
| Buyer              | Buyer_Email   | Alternative Key(AK1.1)          |
| Buyer              | Buyer_Name    | None                            |
| Buyer              | Buyer_Surname | None                            |
| Buyer              | Address       | None                            |
| Buyer              | City          | None                            |
| Buyer              | Country       | None                            |
| Buyer              | State         | None                            |

| Buyer      | ZIP          | None                   |
|------------|--------------|------------------------|
|            |              |                        |
| Order_Sale | Order_SaleNo | Primary Key (PK)       |
| Order_Sale | BuyerID      | Foreign Key (FK)       |
| Order_Sale | Date_Time    | Alternative Key(AK1.1) |
| Order_Sale | TotalPrice   | None                   |
| Order_Sale | Payment      | None                   |

## **Tables**

#### **CREATE TABLE ART:**

CREATE TABLE ART (

ArtNo INT NOT NULL,

Type char(25) NOT NULL,

Price int NOT NULL,

ArtName char(25) NOT NULL,

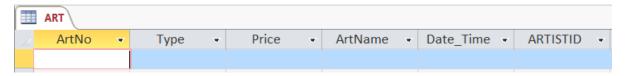
Date\_Time DATE NOT NULL,

ARTISTID INT NOT NULL,

CONSTRAINT ArtPK PRIMARY KEY (ArtNo),

CONSTRAINT ArtAK1 UNIQUE(ArtName),

CONSTRAINT ArtistFK FOREIGN KEY (ARTISTID) REFERENCES ARTIST (ARTISTID)););



### **LANGE OF TABLE ARE NEW OF SERVICES**

CREATE TABLE Art\_Keywords(

ArtNo INT NOT NULL,

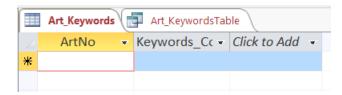
Keywords\_Co INT NOT NULL,

CONSTRAINT KeywordsPK FOREIGN KEY (Keywords\_Co) REFERENCES Keywords (Keywords\_Co),

CONSTRAINT ARTKPK FOREIGN KEY (ArtNo) REFERENCES ART (ArtNo),

CONSTRAINT Art\_Keywords PRIMARY KEY (ArtNo,Keywords\_Co)

);



#### CREATE TABLE Art\_Theme\_Category:

CREATE TABLE Art\_Theme\_Category (

ArtNo INT NOT NULL,

Theme\_CatNo INT NOT NULL,

CONSTRAINT ThemePK FOREIGN KEY (Theme\_CatNo) REFERENCES Theme\_Category (Theme\_CatNo),

CONSTRAINT ART2KPK FOREIGN KEY (ArtNo) REFERENCES ART (ArtNo),

CONSTRAINT Art\_Theme\_Category PRIMARY KEY (ArtNo,Theme\_CatNo)

);



#### **CREATE TABLE ARTIST:**

CREATE TABLE ARTIST (

ARTISTID INT NOT NULL,

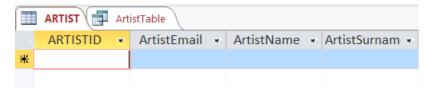
ArtistEmail char(25) NOT NULL,

ArtistName char (25) NOT NULL,

ArtistSurname char(25) NOT NULL,

CONSTRAINT ArtistPK PRIMARY KEY (ArtistID),

CONSTRAINT ArtistAK1 UNIQUE(ArtistEmail));



# **CREATE TABLE Buyer:**

CREATE TABLE Buyer(

BuyerID INT NOT NULL,

Buyer\_Email CHAR(25) NOT NULL,

Buyer\_Name CHAR(25) NOT NULL,

Buyer\_Surname CHAR(25) NOT NULL,

Address CHAR(25) NOT NULL,

City CHAR(25) NOT NULL,

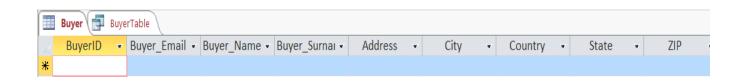
Country CHAR(25) NOT NULL,

State CHAR(25) NOT NULL,

ZIP CHAR(25) NOT NULL,

CONSTRAINT BuyerPK PRIMARY KEY (BuyerID),

CONSTRAINT BuyerAK1 UNIQUE(Buyer\_Email));



### CREATE TABLE Buyer:

**CREATE TABLE Keywords (** 

Keywords\_Co INT NOT NULL,

Keywords\_name char(25) NOT NULL,

CONSTRAINT KeywordsPK PRIMARY KEY (Keywords\_Co),

CONSTRAINT KeywordAK1 UNIQUE(Keywords\_name)

);



#### CREATE TABLE Cost\_Calculation:

CREATE TABLE Cost\_Calculation( ArtNo INT NOT NULL, Order\_SaleNo INT NOT NULL, Cost REAL NOT NULL, Type CHAR(25) NOT NULL, Size CHAR(25) NOT NULL, Material CHAR(25) NOT NULL, Quantity INT NOT NULL, CONSTRAINT ART2PK FOREIGN KEY (ArtNo) REFERENCES ART(ArtNo), CONSTRAINT Order\_SalePK FOREIGN KEY (Order\_SaleNo) REFERENCES Order\_Sale(Order\_SaleNo), CONSTRAINT Cost\_CalculationPK PRIMARY KEY(ArtNo, Order\_SaleNo) ); ART Art\_Keywords Buyer Cost Calculation Cost\_CalculationTable ArtNo ▼ Order SaleN ▼ Size Material Quantity

### **LANGE TABLE Theme Category:**

CREATE TABLE Theme\_Category(

Theme\_CatNo INT NOT NULL,

Theme\_Name char(25) NOT NULL,

Theme char(25) NOT NULL,

CONSTRAINT Theme\_CatNoPK PRIMARY KEY (Theme\_CatNo),

CONSTRAINT Theme\_NameAK1 UNIQUE(Theme\_Name));



#### CREATE TABLE Order\_Sale:

CREATE TABLE Order\_Sale(

Order\_SaleNo INT NOT NULL,

Date\_Time Date NOT NULL,

TotalPrice REAL NOT NULL,

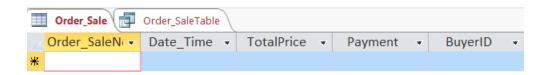
Payment INT NOT NULL,

BuyerID INT NOT NULL,

CONSTRAINT Order\_SalePK PRIMARY KEY(Order\_SaleNo),

CONSTRAINT Order\_SaleFK FOREIGN KEY (BuyerID) REFERENCES Buyer(BuyerID),

CONSTRAINT Order\_SaleAK1 UNIQUE(Date\_Time));



# Insert records into tables, after their creation:

# **INSERT RECORDS INTO TABLE ART:**

INSERT INTO ART ( ArtNo, ArtistID, Type, Price, ArtName, Date\_Time )
VALUES (1020, 0001, 'Landscape', 65.21, 'Paris', 12/3/17);

|   | ArtNo - | Type      | $\overline{}$ | Price | +   | ArtName +      | Date_Time • | ARTISTID | - |
|---|---------|-----------|---------------|-------|-----|----------------|-------------|----------|---|
| + | 1010    | Portait   |               |       | 24  | Skyscrapers    | 7:00:00 AM  |          | 6 |
| + | 1020    | Landscape |               |       | 65  | Paris          | 5:38:49 AM  |          | 1 |
| + | 1973    | Portait   |               |       | 75  | Buildings      | 7:45:53 PM  |          | 5 |
| + | 2545    | Landscape |               |       | 8   | Pottery        | 1:46:22 AM  |          | 4 |
| + | 3038    | Abstract  |               |       | 37  | Vienna         | 2:49:25 AM  |          | 2 |
| + | 4562    | Abstract  |               |       | 48  | Michael Jackso | 1:46:22 AM  |          | 3 |
| + | 6393    | Landscape |               |       | 14  | Elvis Presley  | 12:18:00 AM |          | 4 |
| + | 6585    | Sculpture |               |       | 20  | Statuary       | 8:28:14 AM  |          | 6 |
| + | 7463    | Landscape |               |       | 40  | Dance          | 6:45:00 AM  |          | 5 |
| + | 7850    | Abstract  |               |       | 101 | Countrysite    | 9:10:35 PM  |          | 3 |

# INSERT RECORDS INTO TABLE Art\_Theme\_Category:

INSERT INTO Art\_Theme\_Category ( ArtNo, Theme\_CatNo ) VALUES (1010, 11);

→ (Same procedure for 9 more entries)

| Art_Theme_Category |               |  |  |  |  |
|--------------------|---------------|--|--|--|--|
| ArtNo +            | Theme_CatNo - |  |  |  |  |
| 1010               | 11            |  |  |  |  |
| 1020               | 12            |  |  |  |  |
| 1973               | 13            |  |  |  |  |
| 2545               | 14            |  |  |  |  |
| 3038               | 15            |  |  |  |  |
| 4562               | 16            |  |  |  |  |
| 6393               | 17            |  |  |  |  |
| 6585               | 18            |  |  |  |  |
| 7463               | 19            |  |  |  |  |
| 7850               | 20            |  |  |  |  |

#### **INSERT RECORDS INTO TABLE ARTIST:**

INSERT INTO ARTIST ( ARTISTID, ArtistEmail, ArtistName, ArtistSurname )

VALUES (0001, 'demet1@hotmail.com', 'Demetris', 'Kosta');

| 8 | ARTISTID - | ArtistEmail +             | ArtistName • | ArtistSurname |  |
|---|------------|---------------------------|--------------|---------------|--|
| + |            | demet1@hotmail.com        | Demetris     | Kosta         |  |
| + |            | 2 kostas.ch@hotmail.com   | Kostas       | Charalambous  |  |
| + |            | 3 chris13.k@hotmail.com   | Christina    | Kyriacou      |  |
| + |            | 4 pavlos67.l@hotmail.com  | Pavlos       | Leontiades    |  |
| + |            | Ioanna54.papa@hotmail.com | Ioanna       | Papadopoulou  |  |
| + |            | 5 Paris.Her@hotmail.com   | Paris        | Heracleous    |  |

#### INSERT RECORDS INTO TABLE BUYER:

INSERT INTO BUYER (BuyerID, Buyer\_Email, Buyer\_Name, Buyer\_Surname, Address, City, Country, State, ZIP)

VALUES (123, 'marios.ch@hotmail.com', 'Marios', 'Constantinou', '709 Honey Creek', 'New York', 'USA', 'NY', 10028);

→ (Same procedure for 9 more entries)



#### INSERT RECORDS INTO TABLE Cost Calculation:

INSERT INTO Cost\_Calculation (ArtNo, Order\_SaleNo, Cost, Type, [Size], Material, Quantity )
VALUES (1010, 201601, 45.2, 'Landscape', 'A3', 'Canvas', 1);

| ArtNo 🕶 | Order_SaleNo + | Cost + | Type      | → Size | <ul> <li>Material</li> </ul> | Quantity - |
|---------|----------------|--------|-----------|--------|------------------------------|------------|
| 1010    | 201601         | 45.2   | Landscape | A3     | Canvas                       |            |
| 1020    | 201704         | 50     | Landscape | A4     | Wood                         |            |
| 1973    | 201705         | 70.4   | Portait   | A1     | Silk                         |            |
| 3038    | 201602         | 90.6   | Abstract  | A5     | Cloth                        |            |
| 4562    | 201702         | 105.6  | Abstract  | A2     | Wood                         |            |
| 6393    | 201703         | 200.5  | Landscape | A2     | Silk                         |            |
| 6585    | 201706         | 46.99  | Sculpture | A4     | Cloth                        |            |
| 7850    | 201701         | 12.5   | Abstract  | A4     | Canvas                       |            |

# **↓** INSERT RECORDS INTO TABLE Keywords:

INSERT INTO Keywords ( Keywords\_Co, Keywords\_Name ) VALUES (1111, 'Canvas');

|          | Keywords_Co - | Keywords_name |
|----------|---------------|---------------|
| <b>±</b> | 1111          | Canvas        |
| +        | 1112          | Card stock    |
| +        | 1113          | Glass         |
| +        | 1114          | Plaster       |
| +        | 1115          | Wood          |
| +        | 1121          | religious     |
| +        | 1122          | nude          |
| <b>+</b> | 1123          | Portraiture   |
| +        | 1124          | nature        |
| +        | 1125          | fantasy       |
| +        | 1211          | Sky           |
| •        | 1212          | paris         |
| +        | 1213          | Building      |
| +        | 1214          | Pottery       |
| +        | 1215          | Vienna        |
| <b>±</b> | 1216          | Jackson       |
| +        | 1217          | Prisley       |
| +        | 1218          | Country       |

# INSERT RECORDS INTO TABLE Order\_Sale:

INSERT INTO Order\_Sale (Order\_SaleNo, BuyerID, Date\_Time, TotalPrice, Payment)
VALUES (201701, 108, 12/1/17, 12.50, 12.50);

→ (Same procedure for 9 more entries)

|   | Order_SaleNo - | Date_Time • | TotalPrice - | Payment + | BuyerID - |
|---|----------------|-------------|--------------|-----------|-----------|
| + | 201601         | 1:30:00 AM  | 45.2         | 45        | 145       |
| Ŧ | 201602         | 3:45:00 AM  | 90.6         | 91        | 752       |
| + | 201701         | 4:56:28 PM  | 12.5         | 12        | 108       |
| + | 201702         | 6:21:11 PM  | 105.6        | 106       | 123       |
| + | 201703         | 11:17:39 AM | 200.5        | 200       | 786       |
| ŧ | 201704         | 4:14:07 AM  | 50           | 50        | 792       |
| + | 201705         | 8:00:00 AM  | 70.4         | 70        | 964       |
| + | 201706         | 9:52:56 AM  | 46.99        | 47        | 987       |

## **■ INSERT RECORDS INTO TABLE Theme Category:**

INSERT INTO Theme\_Category ( Theme\_CatNo, Theme\_Name, Theme )
VALUES (11, 'Downtown', 'Tour De Eiffel');

|       | Theme_CatNo - | Theme_Name •     | Theme             |
|-------|---------------|------------------|-------------------|
| +     | 11            | Summer           | Sun               |
| +     | 12            | Camping          | Tent              |
| +     | 13            | Cafeteria        | Coffee            |
| 1     | 14            | Ferniture        | Table             |
| +     | 15            | Design           | Interior Design   |
| $\pm$ | 16            | Weather          | Rainy             |
| +     | 17            | Computer Science | Graphics          |
| 1     | 18            | Relegious        | Easter            |
| +     | 19            | Photography      | Point View        |
| +     | 20            | History          | Statue of Freedom |
|       |               |                  |                   |

# **↓** INSERT RECORDS INTO TABLE Art\_Keywords:

INSERT INTO Art\_Keywords ( Keywords\_Co, ArtNo )
VALUES (1216, 4562);

|   | Art_Keywords |               |
|---|--------------|---------------|
| 4 | ArtNo 🔻      | Keywords_Co - |
|   | 1010         | 1211          |
|   | 1020         | 1212          |
|   | 1973         | 1213          |
|   | 2545         | 1214          |
|   | 3038         | 1215          |
|   | 4562         | 1216          |
|   | 6393         | 1217          |
|   | 7850         | 1218          |

## Queries:

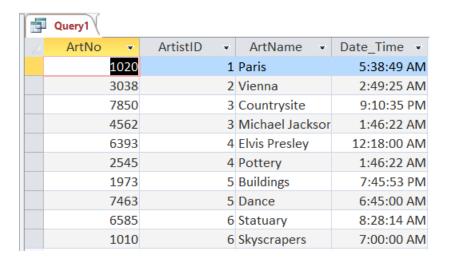
#### **Query1**:

\*Extract the common data from the tables ART and ARTIST and show the columns: ART, ArtNo, ArtistID, ARTName, ARTDate\_Time.

SELECT ART.ArtNo, ART.ArtistID, ART.ArtName, ART.Date\_Time

FROM ART, ARTIST

WHERE (((ART.ArtistID)=[ARTIST].[ArtistID]));



# **Query 2:**

#### \*Extract all the data from table ARTIST

#### **SELECT** \*

FROM ARTIST;

| Query2   |   |                           |   |              |                |  |  |
|----------|---|---------------------------|---|--------------|----------------|--|--|
| ARTISTID | ¥ | ArtistEmail •             | , | ArtistName 🕶 | ArtistSurnam - |  |  |
|          | 1 | demet1@hotmail.com        |   | Demetris     | Kosta          |  |  |
|          | 2 | kostas.ch@hotmail.com     |   | Kostas       | Charalambous   |  |  |
|          | 3 | chris13.k@hotmail.com     |   | Christina    | Kyriacou       |  |  |
|          | 4 | pavlos67.l@hotmail.com    |   | Pavlos       | Leontiades     |  |  |
|          | 5 | Ioanna54.papa@hotmail.com |   | Ioanna       | Papadopoulou   |  |  |
|          | 6 | Paris.Her@hotmail.com     |   | Paris        | Heracleous     |  |  |

## Query 3:

\*Count all the fileds ArtNo, from Table ART and change the name of the table to ArtInGallery

SELECT COUNT(ARTNo) AS ArtInGallery

FROM ART;

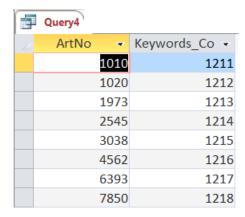




\*Show all data from the coloumns ArtNo and Keywords\_Co, from the table Art\_Keywords.

SELECT ArtNo, Keywords\_Co

FROM Art\_Keywords;



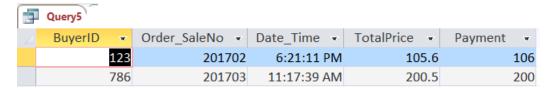
### Query 5:

\*Show all the common data, where the Payment is larger than 100, from the tables Buyer and Order\_Sale. Show the columns: BuyerID, Date\_Time, TotalPrice, Payment

SELECT Buyer.BuyerID, Order\_SaleNo, Date\_Time, TotalPrice, Payment

FROM Buyer, Order\_Sale

WHERE Buyer.BuyerID = Order\_Sale.BuyerID AND Order\_Sale.Payment > 100;



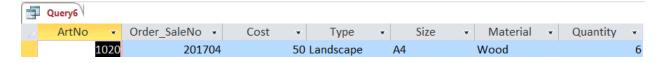
#### **Query 6:**

\*Show all common data where its type is equal to Landscape and Quantity larger or equal than 2. Show the following columns: ArtNo, Order\_SaleNo, Cost, Type, Size, Material, Quantity

SELECT ArtNo, Order\_Sale.Order\_SaleNo, Cost, Type, Size, Material, Quantity

FROM Cost Calculation, Order Sale

WHERE Cost\_Calculation.Order\_SaleNo = Order\_Sale.Order\_SaleNo AND Cost\_Calculation.Type = "Landscape" AND Cost\_Calculation.Quantity >= 2;



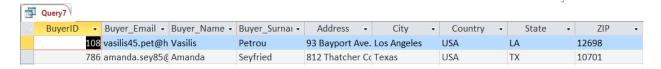
#### Query 7:

\*Show all columns where the Buyer's Surname has as a second letter, the letter 'e'.

#### **SELECT** \*

FROM Buyer

WHERE Buyer Surname LIKE '?e\*';



#### **4** Query 8:

\*Show all common data where the material are equal to 'Canvas' and the type is equal as an 'Abstract'. Show the ArtNo, Order\_SaleNo, Cost, Type, Size, Material, and Quantity.

SELECT ArtNo, Order\_SaleNo, Cost, Type, Size, Material, Quantity

FROM Cost\_Calculation

WHERE Material = 'Canvas' AND Type = 'Abstract';



# **4** Query 9:

\*Show the ArtName, where the ArtistEmail is 'demet1@hotmail.com' from table Art and Artist.

SELECT Art.ArtName

FROM Art, Artist

WHERE ArtistEmail = 'demet1@hotmail.com' AND ART.ArtistID=Artist.ArtistID;



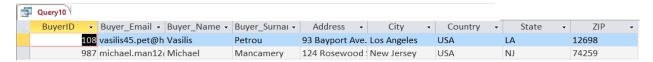
#### Query 10:

\*Select all common data where Payment is less than 50 and the Buyer's State is equal to 'NJ' or 'LA'.

#### SELECT \*

FROM Buyer, Order\_Sale

WHERE Buyer.BuyerID = Order\_Sale.BuyerID AND Order\_Sale.Payment < 50 AND (Buyer.State = 'NJ' OR Buyer.State = 'LA');



#### Query 11:

\*Show all the common data from the columns ArtName and ARTISTID where the ArtistName is equal to 'Pavlos'

SELECT ARTIST.ARTISTID, ArtName

FROM ARTIST, ART

WHERE ARTIST.ArtistID = Art.ArtistID AND ArtistName = 'Pavlos';



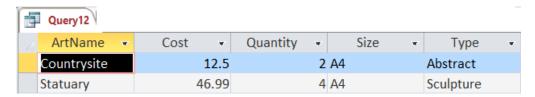
#### Query 12:

\*Show all common data from the columns ArtName, Cost, Quantity, Size and Type, where the Size is 'A4' and the Type is equal to Sculpture or Abstract.

SELECT Art.ArtName, Cost\_Calculation.Cost, Cost\_Calculation.Quantity, Cost\_Calculation.Size, Cost\_Calculation.Type

FROM Art, Cost\_Calculation

WHERE Art.ArtNo = Cost\_Calculation.ArtNo AND Cost\_Calculation.Size = 'A4' AND (Cost\_Calculation.Type = 'Sculpture' OR Cost\_Calculation.Type = 'Abstract');



#### **Query 13:**

\*Extract all the data from the columns ArtName, ArtNo, Keywords\_Co

SELECT ArtName, ART.ArtNo, Keywords\_Co

FROM ART LEFT JOIN Art\_Keywords ON ART.ArtNo=Art\_Keywords.ArtNo;

|   | Query13         |         |               |
|---|-----------------|---------|---------------|
| _ | ArtName -       | ArtNo - | Keywords_Co - |
|   | Skyscrapers     | 1010    | 1211          |
|   | Paris           | 1020    | 1212          |
|   | Buildings       | 1973    | 1213          |
|   | Pottery         | 2545    | 1214          |
|   | Vienna          | 3038    | 1215          |
|   | Michael Jacksor | 4562    | 1216          |
|   | Elvis Presley   | 6393    | 1217          |
|   | Statuary        | 6585    |               |
|   | Dance           | 7463    |               |
|   | Countrysite     | 7850    | 1218          |

# **Query 14:**

# \*Extract all the data from the columns ArtName, ArtNo, Theme\_CatNo

SELECT ArtName, ART.ArtNo, Theme\_CatNo

FROM ART LEFT JOIN Art\_Theme\_Category ON ART.ArtNo=Art\_Theme\_Category.ArtNo;

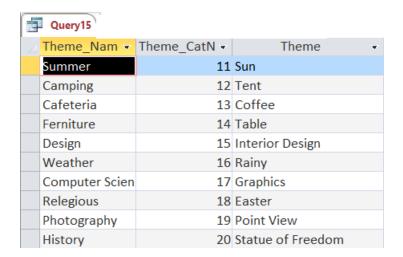
| į. | Query14         |         |              |
|----|-----------------|---------|--------------|
| 4  | ArtName 🔻       | ArtNo - | Theme_CatN - |
|    | Skyscrapers     | 1010    | 11           |
|    | Paris           | 1020    | 12           |
|    | Buildings       | 1973    | 13           |
|    | Pottery         | 2545    | 14           |
|    | Vienna          | 3038    | 15           |
|    | Michael Jacksor | 4562    | 16           |
|    | Elvis Presley   | 6393    | 17           |
|    | Statuary        | 6585    | 18           |
|    | Dance           | 7463    | 19           |
|    | Countrysite     | 7850    | 20           |

#### **Query 15:**

#### \*Extract all the data from the columns Theme\_Name, Theme\_CatNo, Theme

SELECT Theme\_Name, Theme\_Category.Theme\_CatNo, Theme\_Category.Theme

FROM Theme\_Category RIGHT JOIN Art\_Theme\_Category ON Theme\_Category.Theme\_CatNo = Art\_Theme\_Category.Theme\_CatNo;



# **Query 16:**

# \*Extract all the data from the columns Keywords\_Co, Keywords\_name, ArtNo

SELECT Keywords.Keywords\_Co, Keywords\_name, Art\_Keywords.ArtNo
FROM Keywords LEFT JOIN Art\_Keywords ON Keywords.Keywords\_Co;

| Query16         |                 |         |
|-----------------|-----------------|---------|
| ∠ Keywords_Co → | Keywords_name + | ArtNo - |
| 1111            | Canvas          |         |
| 1112            | Card stock      |         |
| 1113            | Glass           |         |
| 1114            | Plaster         |         |
| 1115            | Wood            |         |
| 1121            | religious       |         |
| 1122            | nude            |         |
| 1123            | Portraiture     |         |
| 1124            | nature          |         |
| 1125            | fantasy         |         |
| 1211            | Sky             | 1010    |
| 1212            | paris           | 1020    |
| 1213            | Building        | 1973    |
| 1214            | Pottery         | 2545    |
| 1215            | Vienna          | 3038    |
| 1216            | Jackson         | 4562    |
| 1217            | Prisley         | 6393    |
| 1218            | Country         | 7850    |