

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

- Databases
- Security
- Server Objects
- Replication
- Management
- XEvent Profiler

queries.sql - DESKTO...ArtGallery (sa (52))*

```
-- Ishaan Gupta
-- Create the Artists table
CREATE TABLE Artists (
    ArtistID INT PRIMARY KEY,
    Name VARCHAR(255) NOT NULL,
    Biography TEXT,
    Nationality VARCHAR(100));

-- Create the Categories table
CREATE TABLE Categories (
    CategoryID INT PRIMARY KEY,
    Name VARCHAR(100) NOT NULL);

-- Create the Artworks table
CREATE TABLE Artworks (
    ArtworkID INT PRIMARY KEY,
    Title VARCHAR(255) NOT NULL,
    ArtistID INT,
    CategoryID INT,
    Year INT,
    Description TEXT,
    ImageURL VARCHAR(255),
    FOREIGN KEY (ArtistID) REFERENCES Artists (ArtistID),
    FOREIGN KEY (CategoryID) REFERENCES Categories (CategoryID));

-- Create the Exhibitions table
CREATE TABLE Exhibitions (
    ExhibitionID INT PRIMARY KEY,
    Title VARCHAR(255) NOT NULL,
    StartDate DATE,
    EndDate DATE,
    Description TEXT);

-- Create a table to associate artworks with exhibitions
CREATE TABLE ExhibitionArtworks (
    ExhibitionID INT,
    ArtworkID INT,
    PRIMARY KEY (ExhibitionID, ArtworkID),
    FOREIGN KEY (ExhibitionID) REFERENCES Exhibitions (ExhibitionID),
    FOREIGN KEY (ArtworkID) REFERENCES Artworks (ArtworkID));
```

50 %

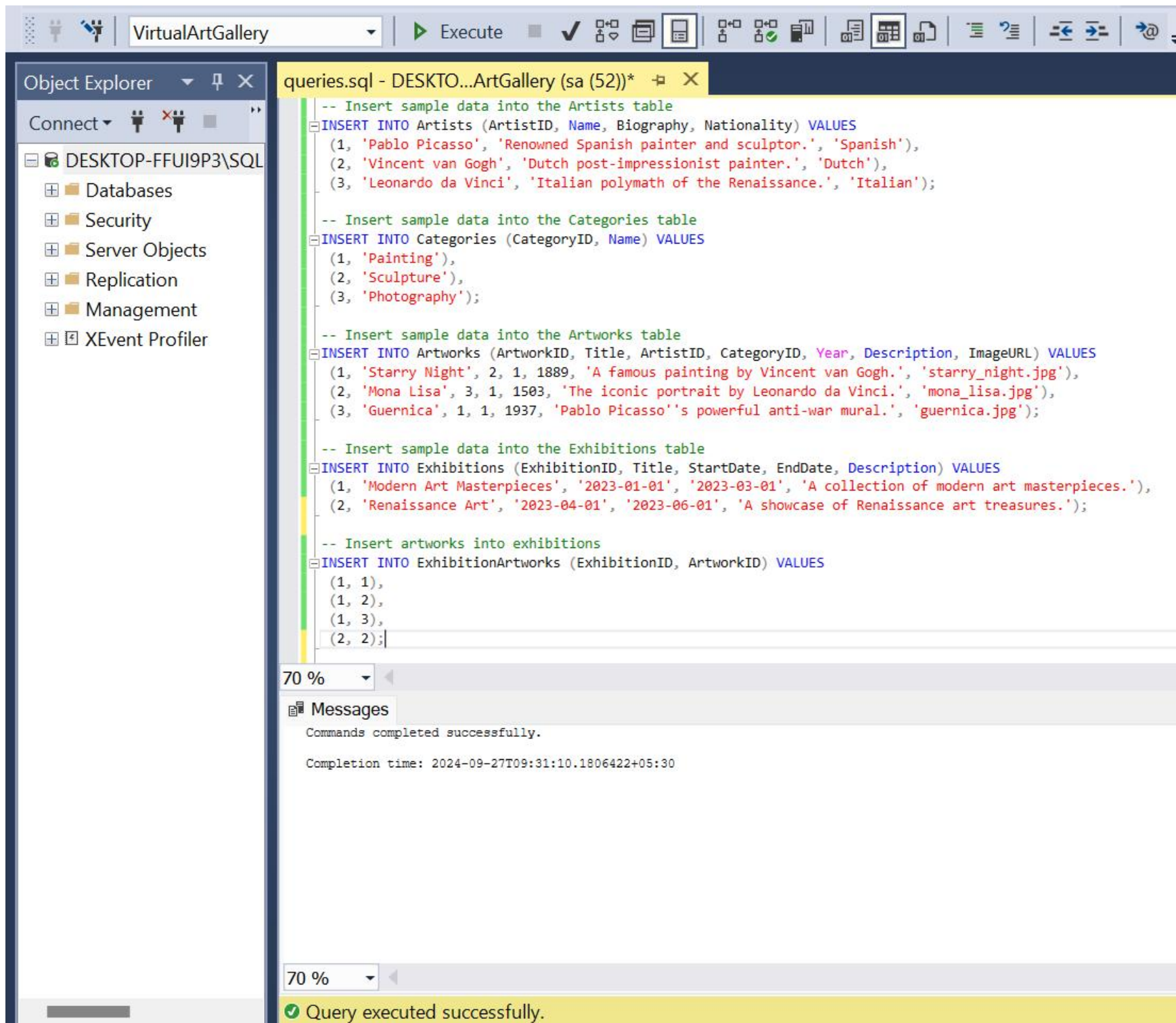
Messages

Commands completed successfully.

Completion time: 2024-09-27T09:31:10.1806422+05:30

50 %

Query executed successfully.



queries.sql - DESKTO...ArtGallery (sa (52))*

```
select * from Artists;  
select * from Categories;  
select * from Artists;  
select * from Exhibitions;  
select * from ExhibitionArtworks;
```

100 %

Results Messages

	ArtistID	Name	Biography	Nationality
1	1	Pablo Picasso	Renowned Spanish painter and sculptor.	Spanish
2	2	Vincent van Gogh	Dutch post-impressionist painter.	Dutch
3	3	Leonardo da Vinci	Italian polymath of the Renaissance.	Italian

	CategoryID	Name
1	1	Painting
2	2	Sculpture
3	3	Photography

	ArtistID	Name	Biography	Nationality
1	1	Pablo Picasso	Renowned Spanish painter and sculptor.	Spanish
2	2	Vincent van Gogh	Dutch post-impressionist painter.	Dutch
3	3	Leonardo da Vinci	Italian polymath of the Renaissance.	Italian

	ExhibitionID	Title	StartDate	EndDate	Description
1	1	Modern Art Masterpieces	2023-01-01	2023-03-01	A collection of modern art masterpieces.
2	2	Renaissance Art	2023-04-01	2023-06-01	A showcase of Renaissance art treasures.

	ExhibitionID	ArtworkID
1	1	1
2	1	2
3	1	3
4	2	2

✓ Query executed successfully.

Connect   

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))* 100% X

-- Ishaan Gupta

```
-- Q1) Retrieve the names of all artists along with the number of artworks they have in the gallery, and
-- list them in descending order of the number of artworks.
```

```
SELECT a.Name, COUNT(aw.ArtworkID) AS ArtworkCount
FROM Artists a
LEFT JOIN Artworks aw ON a.ArtistID = aw.ArtistID
GROUP BY a.Name
ORDER BY ArtworkCount DESC;
```

100 % ▾

Results Messages

	Name	ArtworkCount
1	Leonardo da Vinci	1
2	Pablo Picasso	1
3	Vincent van Gogh	1

✔ Query executed successfully.

DESKTOP-FFUI9P3\SQLEXPRES

```
-- List the titles of artworks created by artists from 'Spanish' and 'Dutch' nationalities, and order
-- them by the year in ascending order
```

```
SELECT aw.Title
FROM Artworks aw
JOIN Artists a ON aw.ArtistID = a.ArtistID
WHERE a.Nationality IN ('Spanish', 'Dutch')
ORDER BY aw.Year ASC;
```

100 % ▾

Results Messages

	Title
1	Starry Night
2	Guernica

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))*

-- Ishaan Gupta

--Q5) Find the artists who have more than two artworks in the gallery.

SELECT a.Name
FROM Artists a
JOIN Artworks aw ON a.ArtistID = aw.ArtistID
GROUP BY a.Name
HAVING COUNT(aw.ArtworkID) > 2;

100 %

Results Messages

Name

Query executed successfully.

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))*

```
-- Ishaan Gupta

-- Q7) Find the total number of artworks in each category

SELECT c.Name AS CategoryName, COUNT(aw.ArtworkID) AS ArtworkCount
FROM Categories c
LEFT JOIN Artworks aw ON c.CategoryID = aw.CategoryID
GROUP BY c.CategoryID, c.Name;
```

100 %

Results Messages

	CategoryName	ArtworkCount
1	Painting	3
2	Sculpture	0
3	Photography	0

Query executed successfully.

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))*

```
-- Ishaan Gupta

-- Q8) List artists who have more than 3 artworks in the gallery

SELECT a.Name
FROM Artists a
JOIN Artworks aw ON a.ArtistID = aw.ArtistID
GROUP BY a.Name
HAVING COUNT(aw.ArtworkID) > 3;
```

100 %

Results Messages

Name

Query executed successfully.

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))

-- Ishaan Gupta

-- q10) List exhibitions that feature artwork by both Vincent van Gogh and Leonardo da Vinci.

SELECT DISTINCT e.Title
FROM Exhibitions e
JOIN ExhibitionArtworks ea ON e.ExhibitionID = ea.ExhibitionID
JOIN Artworks aw ON ea.ArtworkID = aw.ArtworkID
JOIN Artists a ON aw.ArtistID = a.ArtistID
WHERE a.Name IN ('Vincent van Gogh', 'Leonardo da Vinci')
GROUP BY e.ExhibitionID, e.Title
HAVING COUNT(DISTINCT a.ArtistID) = 2;

100 %

Results

Messages

	Title
1	Modern Art Masterpieces

Query executed successfully.

DESKTOP-FFUI

VirtualArtGallery

Execute

queries.sql - DESKTO...ArtGallery (sa (52))

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

-- Ishaan Gupta

-- q12) List artists who have created artworks in all available categories.

SELECT a.Name

FROM Artists a

WHERE NOT EXISTS (

SELECT c.CategoryID

FROM Categories c

WHERE NOT EXISTS (

SELECT 1

FROM Artworks aw

WHERE aw.ArtistID = a.ArtistID AND aw.CategoryID = c.CategoryID

)

)

;

100 %

Results

Messages

Name

Query executed successfully.

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))*

```
-- Ishaan Gupta

-- q13) List the total number of artworks in each category.

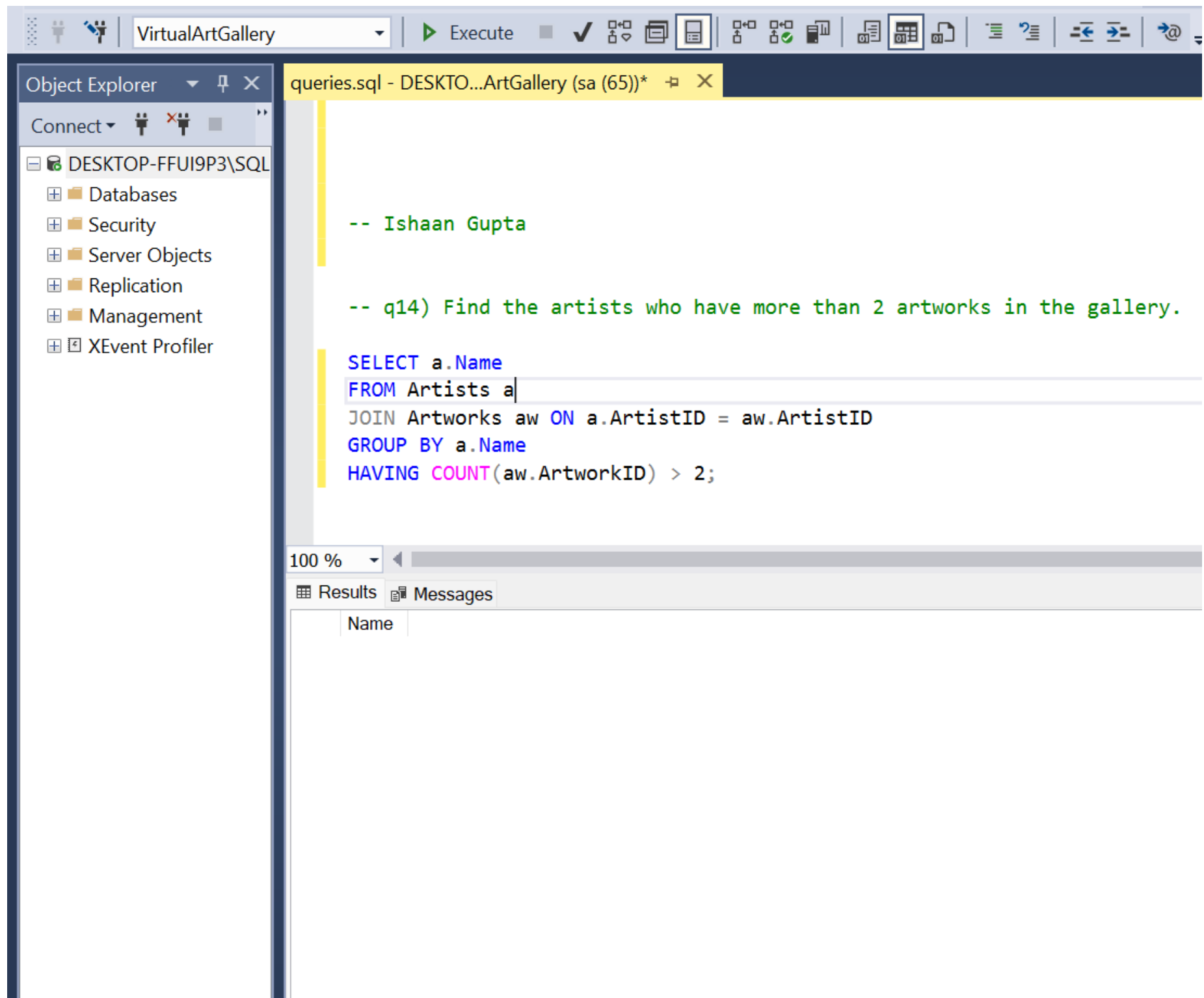
SELECT c.Name AS CategoryName, COUNT(aw.ArtworkID) AS ArtworkCount
FROM Categories c
LEFT JOIN Artworks aw ON c.CategoryID = aw.CategoryID
GROUP BY c.CategoryID, c.Name;
```

100 %

Results Messages

	CategoryName	ArtworkCount
1	Painting	3
2	Sculpture	0
3	Photography	0

Query executed successfully.




```
-- q16) Find the artworks that were exhibited in the 'Modern Art Masterpieces' exhibition.
```

```
SELECT aw.Title
FROM Artworks aw
JOIN Artists a ON aw.ArtistID = a.ArtistID
JOIN ExhibitionArtworks ea ON aw.ArtworkID = ea.ArtworkID
JOIN Exhibitions e ON ea.ExhibitionID = e.ExhibitionID
WHERE e.Title = 'Modern Art Masterpieces';
```

100 % ▾

Results Messages

	Title
1	Starry Night
2	Mona Lisa
3	Guernica

VirtualArtGallery

Execute

Object Explorer

Connect

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))*

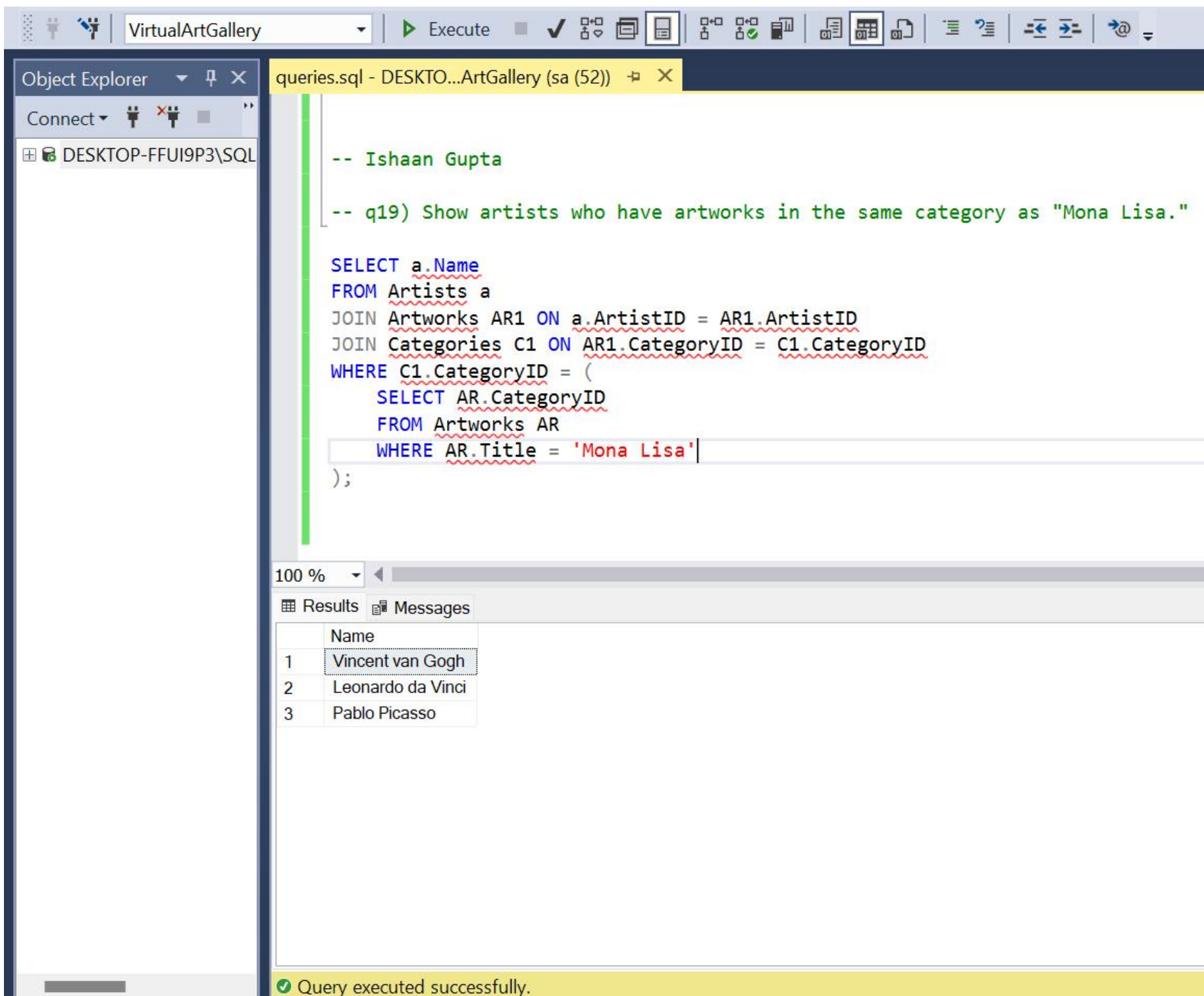
```
-- Ishaan Gupta  
-- q18) List the artworks that were not exhibited in any exhibition.  
  
SELECT aw.Title  
FROM Artworks aw  
LEFT JOIN ExhibitionArtworks ea ON aw.ArtworkID = ea.ArtworkID  
WHERE ea.ExhibitionID IS NULL;
```

100 %

Results Messages

Title

Query executed successfully.



Object Explorer

Connect ▼

DESKTOP-FFUI9P3\SQL

queries.sql - DESKTO...ArtGallery (sa (52))* 100% X

-- Ishaan Gupta

```
-- q20) List the names of artists and the number of artworks they have in the gallery
```


```
SELECT a.Name, COUNT(aw.ArtworkID) AS ArtworkCount
FROM Artists a
LEFT JOIN Artworks aw ON a.ArtistID = aw.ArtistID
GROUP BY a.Name;
```

100 % ▾

Results Messages

	Name	ArtworkCount
1	Leonardo da Vinci	1
2	Pablo Picasso	1
3	Vincent van Gogh	1

✔ Query executed successfully.

 DES