

--Q 1. 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 Name AS ArtistName, COUNT(ArtworkID) AS ArtworkCount
FROM Artists A
LEFT JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
GROUP BY Name
ORDER BY ArtworkCount DESC;
```

148 %
Results Messages

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

```
--2. List the titles of artworks created by artists from 'Spanish' and 'Dutch' nationalities, and order  
--them by the year in ascending order.
```

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

148 %

Results Messages

	Title	Year
1	Starry Night	1889
2	Guernica	1937

--Q 1. Retrieve the
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--3. Find the names of all artists who have artworks in the 'Painting' category, and the number of
--artworks they have in this category.

```
SELECT A.Name , COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
JOIN Categories C ON Ar.CategoryID = C.CategoryID
WHERE C.Name = 'Painting'
GROUP BY A.Name
```

148 %

Results Messages

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

```
--Q 4. List the names of artworks from the 'Modern Art Masterpieces' exhibition, along with their  
--artists and categories
```

```
SELECT Ar.Title, A.Name AS ArtistName, C.Name AS CategoryName  
FROM Artworks Ar  
JOIN Artists A ON Ar.ArtistID = A.ArtistID  
JOIN Categories C ON Ar.CategoryID = C.CategoryID  
JOIN ExhibitionArtworks EA ON Ar.ArtworkID = EA.ArtworkID  
JOIN Exhibitions E ON EA.ExhibitionID = E.ExhibitionID  
WHERE E.Title = 'Modern Art Masterpieces';
```

148 %

Results Messages

	Title	ArtistName	CategoryName
1	Starry Night	Vincent van Gogh	Painting
2	Mona Lisa	Leonardo da Vinci	Painting
3	Guernica	Pablo Picasso	Painting

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

```
SELECT A.Name AS ArtistName, COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
GROUP BY A.Name
HAVING COUNT(Ar.ArtworkID) > 2
```

148 %

Results Messages

ArtistName	ArtworkCount
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```
-- Q 6. Find the titles of artworks that were exhibited in both 'Modern Art Masterpieces' and  
-- 'Renaissance Art' exhibitions
```

```
SELECT Ar.Title AS ArtworkTitle  
FROM Artworks Ar  
JOIN ExhibitionArtworks EA1 ON Ar.ArtworkID = EA1.ArtworkID  
JOIN Exhibitions E1 ON EA1.ExhibitionID = E1.ExhibitionID  
JOIN ExhibitionArtworks EA2 ON Ar.ArtworkID = EA2.ArtworkID  
JOIN Exhibitions E2 ON EA2.ExhibitionID = E2.ExhibitionID  
WHERE E1.Title = 'Modern Art Masterpieces'  
AND E2.Title = 'Renaissance Art';
```

148 %

Results Messages

	ArtworkTitle
1	Mona Lisa

--Q 7. Find the total number of artworks in each category

```
SELECT C.Name AS CategoryName, COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Categories C
LEFT JOIN Artworks Ar ON C.CategoryID = Ar.CategoryID
GROUP BY C.Name
ORDER BY ArtworkCount DESC;
```

148 %

Results Messages

	CategoryName	ArtworkCount
1	Painting	3
2	Photography	0
3	Sculpture	0

--Q 8. List artists who have more than 3 artworks in the gallery

```
SELECT A.Name AS ArtistName, COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
GROUP BY A.Name
HAVING COUNT(Ar.ArtworkID) > 3
```

148 %

Results Messages

ArtistName	ArtworkCount
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--Q 9. Find the artworks created by artists from a specific nationality (e.g., Spanish).

```
SELECT Ar.Title
FROM Artworks Ar
JOIN Artists A ON Ar.ArtistID = A.ArtistID
WHERE A.Nationality = 'Spanish';
```

148 %

Results Messages

	Title
1	Guernica

--Q 10. List exhibitions that feature artwork by both Vincent van Gogh and Leonardo da Vinci.

```
SELECT E.Title AS ExhibitionTitle
FROM Exhibitions E
JOIN ExhibitionArtworks EA ON E.ExhibitionID = EA.ExhibitionID
JOIN Artworks Ar ON EA.ArtworkID = Ar.ArtworkID
JOIN Artists A ON Ar.ArtistID = A.ArtistID
WHERE A.Name IN ('Vincent van Gogh', 'Leonardo da Vinci')
GROUP BY E.ExhibitionID, E.Title
HAVING COUNT(DISTINCT A.Name) = 2;
```

148 %

Results Messages

ExhibitionTitle	
1	Modern Art Masterpieces

--Q 11. Find all the artworks that have not been included in any exhibition.

```
SELECT Ar.Title AS ArtworkTitle, A.Name AS ArtistName, Ar.Year, Ar.Description
FROM Artworks Ar
JOIN Artists A ON Ar.ArtistID = A.ArtistID
LEFT JOIN ExhibitionArtworks EA ON Ar.ArtworkID = EA.ArtworkID
WHERE EA.ExhibitionID IS NULL;
```

148 %

Results Messages

ArtworkTitle	ArtistName	Year	Description
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--Q 12. List artists who have created artworks in all available categories.

```
SELECT A.Name AS ArtistName
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
JOIN Categories C ON Ar.CategoryID = C.CategoryID
GROUP BY A.ArtistID, A.Name
HAVING COUNT(DISTINCT C.CategoryID) = (SELECT COUNT(*) FROM Categories);
```

148 %

Results Messages

ArtistName

--Q 13. List the total number of artworks in each category.

```
SELECT C.Name AS CategoryName, COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Categories C
LEFT JOIN Artworks Ar ON C.CategoryID = Ar.CategoryID
GROUP BY C.CategoryID, C.Name
ORDER BY ArtworkCount DESC;
```

48 %

Results Messages

	CategoryName	ArtworkCount
1	Painting	3
2	Sculpture	0
3	Photography	0

--Q 14. Find the artists who have more than 2 artworks in the gallery

```
SELECT A.Name AS ArtistName, COUNT(Ar.ArtworkID) AS ArtworkCount
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
GROUP BY A.ArtistID, A.Name
HAVING COUNT(Ar.ArtworkID) > 2
ORDER BY ArtworkCount DESC;
```

147 %

Results Messages

ArtistName	ArtworkCount
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```
--Q 15. List the categories with the average year of artworks they contain,  
--only for categories with more than 1 artwork.  
SELECT C.Name AS CategoryName, AVG(Ar.Year) AS AverageYear  
FROM Categories C  
JOIN Artworks Ar ON C.CategoryID = Ar.CategoryID  
GROUP BY C.CategoryID, C.Name  
HAVING COUNT(Ar.ArtworkID) > 1  
ORDER BY AverageYear DESC;
```

147 %

Results Messages

	CategoryName	AverageYear
1	Painting	1776

--Q 16. Find the artworks that were exhibited in the 'Modern Art Masterpieces' exhibition.

```
SELECT Ar.Title AS ArtworkTitle, A.Name AS ArtistName, Ar.Year, Ar.Description
FROM Artworks Ar
JOIN ExhibitionArtworks EA ON Ar.ArtworkID = EA.ArtworkID
JOIN Exhibitions E ON EA.ExhibitionID = E.ExhibitionID
JOIN Artists A ON Ar.ArtistID = A.ArtistID
WHERE E.Title = 'Modern Art Masterpieces';
```

147 %

Results Messages

	ArtworkTitle	ArtistName	Year	Description
1	Starry Night	Vincent van Gogh	1889	A famous painting by Vincent van Gogh.
2	Mona Lisa	Leonardo da Vinci	1503	The iconic portrait by Leonardo da Vinci.
3	Guernica	Pablo Picasso	1937	Pablo Picasso's powerful anti-war mural.

--Q 17. Find the categories where the average year of artworks is
--greater than the average year of all artworks.

```
SELECT C.Name AS CategoryName, AVG(Ar.Year) AS AverageYear
FROM Categories C
JOIN Artworks Ar ON C.CategoryID = Ar.CategoryID
GROUP BY C.CategoryID, C.Name
HAVING AVG(Ar.Year) > (SELECT AVG(Year) FROM Artworks);
```

147 %

Results Messages

CategoryName	AverageYear
--------------	-------------

--Q 18. List the artworks that were not exhibited in any exhibition

```
SELECT Ar.Title AS ArtworkTitle, A.Name AS ArtistName, Ar.Year, Ar.Description
FROM Artworks Ar
JOIN Artists A ON Ar.ArtistID = A.ArtistID
LEFT JOIN ExhibitionArtworks EA ON Ar.ArtworkID = EA.ArtworkID
WHERE EA.ExhibitionID IS NULL;
```

147 %

Results Messages

ArtworkTitle	ArtistName	Year	Description
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--Q 19. Show artists who have artworks in the same category as "Mona Lisa."

```
-- SELECT DISTINCT A.Name AS ArtistName
FROM Artists A
JOIN Artworks Ar ON A.ArtistID = Ar.ArtistID
WHERE Ar.CategoryID = (
    SELECT CategoryID
    FROM Artworks
    WHERE Title = 'Mona Lisa'
);
```

147 %

Results Messages

	ArtistName
1	Leonardo da Vinci
2	Pablo Picasso
3	Vincent van Gogh

--Q 20. List the names of artists and the number of artworks they have in the gallery.

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

147 %

Results Messages

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