```sql
1    -- 1. Retrieve the full name of artists along with the names of the museums where their works are displayed.
2
3  ● select full_name as Artist_Name, museum.name as Museum_Name from artist
4    join work
5    on artist.artist_id = work.artist_id
6    join museum
7    on museum.museum_id = work.museum_id
8    group by Artist_Name, Museum_Name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Artist_Name	Museum_Name
Pierre-Auguste Renoir	The Barnes Foundation
Pierre-Auguste Renoir	MusÃ©e d'Orsay
Pierre-Auguste Renoir	Philadelphia Museum of Art
Pierre-Auguste Renoir	The J. Paul Getty Museum
Pierre-Auguste Renoir	The Art Institute of Chicago
Pierre-Auguste Renoir	The Metropolitan Museum of Art
Pierre-Auguste Renoir	National Gallery
Alexandre Cabanel	Philadelphia Museum of Art
Alexandre Cabanel	The Metropolitan Museum of Art
Alexandre Cabanel	MusÃ©e d'Orsay
Maximilien Luce	MusÃ©e d'Orsay
August Macke	Thussen-Bornemisza Museum

Result 2 ×

Read Only

```sql
-- 2. Group By and Count:
-- How many works does each artist have in the database?
-- Display the artist's full name along with the count of their works, ordered by the count in descending order.

select full_name as Artist_Name, count(work.work_id) as Count_of_Works from artist
join work
on artist.artist_id = work.artist_id
group by Artist_Name
order by Count_of_Works desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Artist_Name	Count_of_Works
Peter Paul Rubens	56
Claude Monet	45
Jean Baptiste Vanmour	30
Francesco Guardi	28
Jan Steen	28
Anton Raphael Mengs	27
Francisco De Goya	27
John Singleton Copley	27
Ivan Aivazovskiy	25
Paul CÃ©zanne	25
Rembrandt Van Rijn	24
Gerard Ter Borch	23

```sql
1    -- 3. Order By and Limit:
2    -- List the top 5 museums with the highest number of works displayed in the database, along with their respective counts.
3
4 •  select museum.name as Museum_Name, count(work.work_id) as Count_of_Works from museum
5    join work
6    on museum.museum_id = work.museum_id
7    group by Museum_Name
8    order by Count_of_Works desc
9    limit 5;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Museum_Name	Count_of_Works
The Metropolitan Museum of Art	536
Rijksmuseum	352
National Gallery	314
National Gallery of Art	175
National Maritime Museum	131

```sql
1    -- 4. Join, Order By, and Limit:
2    -- Display the names and styles of the works along with the corresponding museum names,
3    -- ordered by the museum name in ascending order. Limit the results to 10.
4
5 •  select museum.name as Museum_Name, work.name as Painting_Name, work.style as Style from museum
6    join work
7    on museum.museum_id = work.museum_id
8    order by Museum_Name asc
9    limit 10;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Museum_Name	Painting_Name	Style
Cleveland Museum Of Art	Memento Mori To This Favour	Realism
Cleveland Museum Of Art	Sleeping Peasant near Fields	
Cleveland Museum Of Art	Portrait of George Pitt, First Baron Rivers	Rococo
Cleveland Museum Of Art	View of Rome	American Landscape
Cleveland Museum Of Art	View of Schroon Mountain, Essex County, New ...	American Landscape
Cleveland Museum Of Art	Portrait of Mrs Leneve	Baroque
Cleveland Museum Of Art	Wild Boars in the Snow	Realism
Cleveland Museum Of Art	Fort George Island, Florida	American Landscape
Cleveland Museum Of Art	Portrait of King Charles II of England	Baroque
Cleveland Museum Of Art	View of Florence	American Landscape

Result 5 ✕

Read Only

```sql
1      -- 5.Join, Group By, and Sum:
2      -- Show the total sale price for each artist's works.
3      -- Display the artist's full name along with the total sale price, ordered by the total sale price in descending order.
4
5      select full_name as Artist_Name, sum(sale_price) as Sales_Price from artist
6      join work
7      on artist.artist_id = work.artist_id
8      join product_size
9      on work.work_id = product_size.work_id
10     group by Artist_Name
11     order by Sales_Price desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

Artist_Name	Sales_Price
Peter Paul Rubens	173845
Claude Monet	104545
Jean Baptiste Vanmour	96920
John Singleton Copley	92705
Francesco Guardi	90300
Jan Steen	87155
Adriaan De Lelie	80640
Anton Raphael Mengs	79545
Francisco De Goya	78910
Rembrandt Van Rijn	78540
Thomas Sully	76025
Paul CÃ©zanne	72210

Result 6 ✕   🛈 Read Only

```sql
-- 6. Join, Group By, and Having:
-- List artists who have more than 3 works in the database, along with the count of their works.

select artist.full_name as Artist_Name, count(work.work_id) as Work_Count from artist
    join work
    on artist.artist_id = work.artist_id
    group by Artist_Name
    having Work_Count > 3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Artist_Name	Work_Count
Abraham Mignon	6
Adriaan De Lelie	15
Aelbert Cuyp	21
Albert André	5
Albert Bierstadt	11
Albrecht Durer	10
Alexandre Cabanel	4
Alfred Henry Maurer	4
Alfred Sisley	11
Amedeo Modigliani	15
André Derain	9
Antoine-Jean Gros	5

Result 7 x

Read Only

```sql
    -- 7. Join, Where, and Order By:
    -- Retrieve the names of works and their corresponding artists' full names for works
    -- that have a sale price smaller than their regular price.

    select full_name as Artist_Name, work.name as Work_Name, sale_price as Sales_Price, regular_price as Regular_Price from artist
    join work
    on artist.artist_id = work.artist_id
    join product_size
    on work.work_id = product_size.work_id
    where sale_price < regular_price;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Artist_Name	Work_Name	Sales_Price	Regular_Price
Albrecht Adam	Horses at the Porch	305	535
Albrecht Adam	Horses at the Porch	325	575
Albrecht Adam	Horses at the Porch	375	675
Albrecht Adam	Horses at the Porch	405	735
Albrecht Adam	Horses at the Porch	495	915
Albrecht Adam	Horses at the Porch	675	1275
Albrecht Adam	Horses at the Porch	805	1535
AdÃ©laÃ¯ de Labille-Guiard	Madame de Genlis	305	545
AdÃ©laÃ¯ de Labille-Guiard	Madame de Genlis	325	585
AdÃ©laÃ¯ de Labille-Guiard	Madame de Genlis	375	685
AdÃ©laÃ¯ de Labille-Guiard	Madame de Genlis	405	745
AdÃ©laÃ¯ de Labille-Guiard	Madame de Genlis	495	925

Result 8 ×

Read Only

```sql
    -- 8. Join, Group By, and Average:
    -- Calculate the average height and width of the artworks in the database. Display the average height and width.

    select work.name as Work_Name,
    round(avg(canvas_size.height), 2) as Avg_Height,
    round(avg(canvas_size.width), 2) as Avg_Width
    from work join product_size on
    work.work_id = product_size.work_id
    join canvas_size on
    product_size.size_id = canvas_size.size_id
    group by Work_Name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Work_Name	Avg_Height	Avg_Width
Still Life with Flowers and a Watch	0	27.00
Still Life with Fruit and a Beaker on a Cock's Foot	0	27.00
Still Life with Fruit and a Goldfinch	0	27.00
Still Life with Fruit and Oysters	0	27.00
Still Life with Fruit, Oysters, and a Porcelain Bowl	0	27.00
The Overturned Bouquet	0	27.00
Horses at the Porch	24.7	38.80
Madame de Genlis	44.86	35.29
Portrait of Madame Labille-Guyard and Her Pupils	38.29	34.86
Portrait of the Painter Vincent	44.86	35.29
Portrait de la Famille de l'Artiste Posant Devant l...	39.4	50.40
Portrait of Auguste Vestris, French Dancer	39.78	31.44

Result 9 ×

Read Only

```sql
1    -- Join, Group By, and Max:
2    -- 9 Find the maximum sale price among all the works in each museum.
3    -- Display the museum name along with the maximum sale price.
4
5  • select museum.name as Museum_Name, max(product_size.sale_price) as Maximum_Sales_Price
6    from museum join work
7    on museum.museum_id = work.museum_id
8    join product_size
9    on work.work_id = product_size.work_id
10   group by Museum_Name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Museum_Name	Maximum_Sales_Price
Rijksmuseum	1055
The State Hermitage Museum	1005
Los Angeles County Museum of Art	1005
The Metropolitan Museum of Art	1005
MusÃ©e du Louvre	925
National Gallery of Art	1025
National Gallery	1085
The Tate Gallery	1005
The J. Paul Getty Museum	1025
Cleveland Museum Of Art	1005
Thussen-Bornemisza Museum	1005
The Prado Museum	1115

Result 10

Read Only

```sql
1    -- Join, Group By, and Concatenate:
2    -- 10. Concatenate the first name and last name of artists along with their nationality, separated by a comma.
3    -- Display the concatenated string along with the count of works by each artist, ordered by the count in descending order.
4
5    select concat(artist.first_name, ',', artist.last_name, ',', artist.nationality) as Artist_Info, count(work.artist_id) as Work_Count
6    from artist join work
7    on artist.artist_id = work.artist_id
8    group by Artist_Info
9    order by Work_Count desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Artist_Info	Work_Count
Peter,Rubens,Flemish	56
Claude,Monet,French	45
Jean,Vanmour,Flemish	30
Francesco,Guardi,Italian	28
Jan,Steen,Dutch	28
Anton,Mengs,German	27
Francisco,De Goya,Spanish	27
John,Copley,American	27
Ivan,Aivazovskiy,Russian	25
Paul,Cezanne,French	25
Rembrandt,Van Rijn,Dutch	24
Gerard,Ter Borch,Dutch	23

Result 11 x   Read Only