SECTION 1

Create a web interface and perform the following operations through the interface and display appropriate results.

Artist Table   [Add a new record]   [Search a record]

SQL Query: SELECT * FROM ARTIST

aID	Name	Birth Date	Death Date	Commission	Street	City	StateAb	ZipCode	Action
1	Abed Abdi	2000-01-01	null	10	309 Hcounty Road	Abbott	TX	76621-0057	Edit Delete
2	Ismail Gulg	1990-01-03	null	11	405 E Mesquite Street	Abbott	TX	76621-0057	Edit Delete
3	Shakir Ali	1995-02-04	null	12	5000 Spectrum Street	Addison	TX	75001-6880	Edit Delete
4	Abdur Rahman	1970-02-05	null	10	1000 County Road	Bradley	Ok	73011-0121	Edit Delete
5	Kalipada Ghoshal	1994-01-01	null	10	Boundary Road	Bradley	OK	73011-9600	Edit Delete
6	Manishi Dey	1994-07-15	null	11	450 Main Street	Mound City	KS	66056-0001	Edit Delete
7	Nandalal BoseD	1980-01-09	null	15	S Metcalf Road	Louisburg	KS	66053-0541	Edit Delete
8	Raja Ravi Varma	1970-09-19	null	12	2000 Forest Grove blvd	Allen	TX	75002-8811	Edit Delete
9	Sunil Das	1985-08-01	null	10	4000 Woodcreek Road	Carrollton	TX	75006-1911	Edit Delete
10	Jasper Johns	1970-01-02	null	12	2500 Sunset Ridge Drive	Rockwall	TX	75032-0006	Edit Delete
11	Winslow Homer	1990-02-09	null	11	11300 Juniper Lane	Irving	TX	75039-0101	Edit Delete
12	Albert Bierstadt	1999-09-10	null	10	400 Spruce Street	Leavenworth	KS	66048-0001	Edit Delete
13	Edward Hopper	2000-01-20	null	11	1500 255th Street	Hillsdale	KS	66036-0061	Edit Delete
14	Georgia O'Keeffe	1997-11-05	null	11	3000 Weiss Lane	Irving	TX	75039-0006	Edit Delete
15	Modupeola Fadugba	2001-08-05	null	11	1112 18TH Street	Plano	TX	75086-0019	Edit Delete
16	Ekene Maduka	1990-02-09	null	12	15TH Street	Plano	TX	75086-0015	Edit Delete
17	Olu Amoda	1994-07-15	null	14	200 Travis Street	Sherman	TX	75090-0005	Edit Delete
18	Koki Tanaka	1994-07-15	null	12	5000 W Holiday Road	Fate	TX	75087-2136	Edit Delete
19	Tatsuo Miyajima	1999-07-07	null	11	Bella Ranch Drive	Choctaw	OK	73020-0017	Edit Delete
20	Li Chen	2000-01-20	null	12	2090 County Road	Cement	OK	73017-1100	Edit Delete
21	Zhan Wang	1999-03-03	null	12	1600 N Santa Fe	Edmond	OK	73003-3661	Edit Delete

Language used: PHP
PHP Version: 8.0.10

Q1: Display the Artist details based on any one of the following: name, city, and commission.

By Name:

Enter Name [Enter Name]
Submit

Enter City [Enter City]
Submit

Enter Commission [Enter Commission]
Submit

SELECT * FROM ARTIST WHERE name='Abed Abdi'

aID	Name	Birth Date	Death Date	Commission	Street	City	StateAb	ZipCode
1	Abed Abdi	2000-01-01	null	10	309 Hcounty Road	Abbott	TX	76621-0057

By City:

Enter Name [Enter Name]
Submit

Enter City [Enter City]
Submit

Enter Commission [Enter Commission]
Submit

SELECT * FROM ARTIST WHERE city='Abbott'

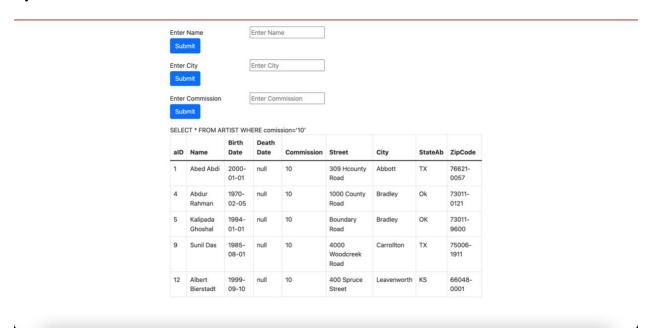| aID	Name	Birth Date	Death Date	Commission	Street	City	StateAb	ZipCode
1	Abed Abdi	2000-01-01	null	10	309 Hcounty Road	Abbott	TX	76621-0057
2	Ismail Gulg	1990-01-03	null	11	405 E Mesquite Street	Abbott	TX	76621-0057

By Commission:

Q2: Insert a new artist "Rahim DograN", in the ARTIST table in the database. You should insert values for all the attributes in the ARTIST table. Link the new artist with the state of Texas in the states table.

Interface:

Query Execution:

Insert Record

Enter ID	Enter ID
Enter Name	Enter Name
Enter Birth Date	mm/dd/yyyy
Enter Death Date	mm/dd/yyyy
Enter Commission	Enter Commission
Enter Street	Enter Street
Enter City	Enter City
Enter State	KS ∨
Enter Zip Code	Enter Zip Code

Insert Record

SQL Query:INSERT INTO `ARTIST`(`aID`, `name`, `birthdate`, `deathDate`, `comission`, `street`, `city`, `stateAb`, `zipcode`) VALUES ('22', 'Rahim DograN', '1994-01-01', NULL, '14', '1111 S North St', 'Dallas', 'TX', '76019-1122')

Artist added Successfully.   View Artists

15	Modupeola Fadugba	2001-08-05	null	11	1112 18TH Street	Plano	TX	75086-0019	Edit	Delete
16	Ekene Maduka	1990-02-09	null	12	15TH Street	Plano	TX	75086-0015	Edit	Delete
17	Olu Amoda	1994-07-15	null	14	200 Travis Street	Sherman	TX	75090-0005	Edit	Delete
18	Koki Tanaka	1994-07-15	null	12	5000 W Holiday Road	Fate	TX	75087-2136	Edit	Delete
19	Tatsuo Miyajima	1999-07-07	null	11	Bella Ranch Drive	Choctaw	OK	73020-0017	Edit	Delete
20	Li Chen	2000-01-20	null	12	2090 County Road	Cement	OK	73017-1100	Edit	Delete
21	Zhan Wang	1999-03-03	null	12	1600 N Santa Fe	Edmond	OK	73003-3661	Edit	Delete
22	Rahim DograN	1994-01-01	null	14	1111 S North St	Dallas	TX	76019-1122	Edit	Delete

Language used: PHP
PHP Version: 8.0.10

Q3: Update the artist name 'Nandalal BoseD' to 'Nandalal Bose' in the ARTIST record that you just added.

Before Update

Artist Table   Add a new record

aID	Name	Birth Date	Death Date	Commission	Street	City	StateAb	ZipCode	Action
1	Abed Abdi	2000-01-01	null	10	309 Hcounty Road	Abbott	TX	76621-0057	Edit Delete
2	Ismail Gulg	1990-01-03	null	11	405 E Mesquite Street	Abbott	TX	76621-0057	Edit Delete
3	Shakir Ali	1995-02-04	null	12	5000 Spectrum Street	Addison	TX	75001-6880	Edit Delete
4	Abdur Rahman	1970-02-05	null	10	1000 County Road	Bradley	Ok	73011-0121	Edit Delete
5	Kalipada Ghoshal	1994-01-01	null	10	Boundary Road	Bradley	OK	73011-9600	Edit Delete
6	Manishi Dey	1994-07-15	null	11	450 Main Street	Mound City	KS	66056-0001	Edit Delete
7	Nandalal Bose	1980-01-09	null	15	S Metcalf Road	Louisburg	KS	66053-0541	Edit Delete

After Updating:

SQL Query: UPDATE ARTIST SET name='Nandalal BoseD', birthdate='1980-01-09', deathDate=NULL, comission='15', street='S Metcalf Road', city='Louisburg', stateAb='KS', zipcode='66053-0541' WHERE aID='7'

Artist updated Successfully.   View Artists

Update Record

Enter ID	7
Enter Name	Nandalal BoseD
Enter Birth Date	01/09/1980
Enter Death Date	mm/dd/yyyy
Enter Commission	15
Enter Street	S Metcalf Road
Enter City	Louisburg
Enter State	KS
Enter Zip Code	66053-0541

Update Records

Artist Table

aID	Name	Birth Date	Death Date	Commission	Street	City	StateAb	ZipCode	Action
1	Abed Abdi	2000-01-01	null	10	309 Hcounty Road	Abbott	TX	76621-0057	Edit Delete
2	Ismail Gulg	1990-01-03	null	11	405 E Mesquite Street	Abbott	TX	76621-0057	Edit Delete
3	Shakir Ali	1995-02-04	null	12	5000 Spectrum Street	Addison	TX	75001-6880	Edit Delete
4	Abdur Rahman	1970-02-05	null	10	1000 County Road	Bradley	Ok	73011-0121	Edit Delete
5	Kalipada Ghoshal	1994-01-01	null	10	Boundary Road	Bradley	OK	73011-9600	Edit Delete
6	Manishi Dey	1994-07-15	null	11	450 Main Street	Mound City	KS	66056-0001	Edit Delete
7	Nandalal BoseD	1980-01-09	null	15	S Metcalf Road	Louisburg	KS	66053-0541	Edit Delete

Q4: Delete the artist record that you just added to the database

Confirmation for Delete Query:

12	Albert Bierstadt	1999-09-10	null	10	400 Spruce Street	Leavenworth	KS	66048-0001	Edit Delete

Delete Artist   ×

| 13 | Edward Hopper | 2000-01- | | | | | | 66036-0061 | Edit Delete |
| 14 | Georgia O'Keeffe | 1997-11- | | | | | | 75039-0006 | Edit Delete |

Are you sure you want to delete the record?

Perform "DELETE FROM ARTIST WHERE aID=22"

| 15 | Modupeola Fadugba | 2001-08- | | | | | | 75086-0019 | Edit Delete |
| 16 | Ekene Maduka | 1990-02- | | | | | | 75086-0015 | Edit Delete |

Delete   Close

17	Olu Amoda	1994-07-15	null	14	200 Travis Street	Sherman	TX	75090-0005	Edit Delete
18	Koki Tanaka	1994-07-15	null	12	5000 W Holiday Road	Fate	TX	75087-2136	Edit Delete
19	Tatsuo Miyajima	1999-07-07	null	11	Bella Ranch Drive	Choctaw	OK	73020-0017	Edit Delete
20	Li Chen	2000-01-20	null	12	2090 County Road	Cement	OK	73017-1100	Edit Delete
21	Zhan Wang	1999-03-03	null	12	1600 N Santa Fe	Edmond	OK	73003-3661	Edit Delete
22	Rahim DograN	1994-01-01	null	14	1111 S North St	Dallas	TX	76019-1122	Edit Delete

Language used: PHP
PHP Version: 8.0.10

After Deletion:

11	Winslow Homer	1990-02-09	null	11	11300 Juniper Lane	Irving	TX	75039-0101	Edit	Delete
12	Albert Bierstadt	1999-09-10	null	10	400 Spruce Street	Leavenworth	KS	66048-0001	Edit	Delete
13	Edward Hopper	2000-01-20	null	11	1500 255th Street	Hillsdale	KS	66036-0061	Edit	Delete
14	Georgia O'Keeffe	1997-11-05	null	11	3000 Weiss Lane	Irving	TX	75039-0006	Edit	Delete
15	Modupeola Fadugba	2001-08-05	null	11	1112 18TH Street	Plano	TX	75086-0019	Edit	Delete
16	Ekene Maduka	1990-02-09	null	12	15TH Street	Plano	TX	75086-0015	Edit	Delete
17	Olu Amoda	1994-07-15	null	14	200 Travis Street	Sherman	TX	75090-0005	Edit	Delete
18	Koki Tanaka	1994-07-15	null	12	5000 W Holiday Road	Fate	TX	75087-2136	Edit	Delete
19	Tatsuo Miyajima	1999-07-07	null	11	Bella Ranch Drive	Choctaw	OK	73020-0017	Edit	Delete
20	Li Chen	2000-01-20	null	12	2090 County Road	Cement	OK	73017-1100	Edit	Delete
21	Zhan Wang	1999-03-03	null	12	1600 N Santa Fe	Edmond	OK	73003-3661	Edit	Delete

Language used: PHP
PHP Version: 8.0.10

Section 2: View Based Queries

Q1: **Create a view ArtworkInfo that has the following attributes: AcqYear (the year the artwork was acquired by the art gallery), AcqMonth (the month, the artwork was acquired by the art gallery - January, February etc.), ArtistName (name of the artist), DOB (Artis's birthDate), ArtistState (State where the artist lives), Title (title of the artwork), Form (form of the artwork – painting/sculpture etc.), ArtworkPrice (Price of the artwork), creationDate (the date when the artwork was created), AcquisitionDate (the date the artwork was acquired by the), UpfrontDate (the date the first payment is made to the artist), SaleDate (the date of the sale of the artwork – null value if the artwork is not sold), FinalDate (the date the artist receives the final payment after the sale of the artwork- null value if artwork is not sold), CustomerName (Name of the customer(s) who bought the artwork - null value if the artwork is not bought), CustomerState (the state where the customer lives). Use the tables as needed. The records should be sorted by the AcqYear, AcqMonth month (March, April, May, … and NOT alphabetically by month name- April, March, May, ..), and the ArtistName.**

```
CREATE VIEW ArtworkInfo AS

(SELECT YEAR(A1.acquisitionDate) AS 'AcqYear', MONTHNAME(A1.acquisitionDate) AS
'AcqMonth',

A2.name AS 'ArtistName', A2.birthdate AS 'DOB', A2.stateAb AS 'ArtistState',

A1.title AS 'Title', A1.form AS 'Form', A1.price AS 'ArtworkPrice',

A1.createDate AS 'creationDate', A1.acquisitionDate AS 'AcquistionDate',

P.upfrontDate AS 'UpfrontDate', B.saleDate AS 'Sale Date', P.finalDate AS 'FinalDate',

C.name AS 'CustomerName', C.stateAb AS 'CustomerState'

FROM ARTWORK A1
INNER JOIN ARTIST A2 ON A2.aID = A1.aID
LEFT OUTER JOIN BOUGHT B ON B.artID = A1.artID
LEFT OUTER JOIN CUSTOMER C ON C.cID = B.cID
LEFT OUTER JOIN PAYMENTS P ON P.artID = A1.artID);
```

Showing rows 0 - ... (Query took 0.0013 seconds.)

`SELECT * FROM `artworkinfo``

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> Show all | Number of rows: 25 v   Filter rows: Search this table

+ Options

			AcqYear	AcqMonth	ArtistName	DOB	ArtistState	Title	Form	ArtworkPrice	creationDate	AcquistionDate	UpfrontDate	Sale Date	FinalDate	CustomerName	CustomerState
Edit	Copy	Delete	2021	February	Abed Abdi	2000-01-01	TX	Refugee Camp	painting	12000	2020-09-09	2021-02-07	2021-02-08	2021-07-08	2021-07-08	Mahbod Seraji	TX
Edit	Copy	Delete	2021	February	Abed Abdi	2000-01-01	TX	Refugee Camp	painting	12000	2020-09-09	2021-02-07	2021-02-08	2021-07-08	2021-07-08	Shazadi Seraji	TX
Edit	Copy	Delete	2021	February	Abed Abdi	2000-01-01	TX	Waiting	painting	15000	2020-12-28	2021-02-07	2021-02-08	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2021	February	Abed Abdi	2000-01-01	TX	Palestenian Women	painting	1700	2021-01-01	2021-02-07	2021-02-08	2021-08-08	2021-08-08	Nadia Hashimi	TX
Edit	Copy	Delete	1921	March	Ismail Gulg	1990-01-03	TX	Al Momin	painting	20000	1920-02-19	1921-03-09	1921-03-11	NULL	NULL	NULL	NULL
Edit	Copy	Delete	1921	July	Ismail Gulg	1990-01-03	TX	God	painting	22000	1921-01-01	1921-07-08	1921-07-08	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2021	May	Shakir Ali	1995-02-04	TX	Bird	sculpture	40000	2021-02-04	2021-05-04	2021-05-04	2021-07-07	2021-07-07	Tahmima Anam	TX
Edit	Copy	Delete	2021	July	Shakir Ali	1995-02-04	TX	Leaves	sculpture	30000	2021-01-04	2021-07-07	2021-07-07	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2014	January	Abdur Rahman	1970-02-05	Ok	The Holy Man	sculpture	10000	2014-01-01	2014-01-02	2014-01-02	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2015	January	Kalipada Ghoshal	1994-01-01	OK	Salvador Dali	print	190	2014-01-01	2015-01-01	2015-01-01	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2020	January	Manishi Dey	1994-07-15	KS	Landscape	print	200	2019-01-25	2020-01-01	2020-01-01	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2021	January	Manishi Dey	1994-07-15	KS	Musician	sculpture	15000	2020-01-25	2021-01-01	2021-01-01	2021-08-08	2021-08-08	Elena Lee	TX
Edit	Copy	Delete	2021	January	Manishi Dey	1994-07-15	KS	Musician	sculpture	15000	2020-01-25	2021-01-01	2021-01-01	2021-08-08	2021-08-08	Harper Lee	TX
Edit	Copy	Delete	2021	January	Manishi Dey	1994-07-15	KS	Musician	sculpture	15000	2020-01-25	2021-01-01	2021-01-01	2021-08-08	2021-08-08	Scott Green	TX
Edit	Copy	Delete	2021	January	Manishi Dey	1994-07-15	KS	Musician	sculpture	15000	2020-01-25	2021-01-01	2021-01-01	2021-08-08	2021-08-08	Mary Green	TX
Edit	Copy	Delete	2021	August	Manishi Dey	1994-07-15	KS	Sunset	painting	19000	2020-06-25	2021-08-01	2021-08-01	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2017	July	Nandalal Bose	1980-01-09	KS	Singawala	painting	10000	2015-05-20	2017-07-02	2017-07-02	2020-08-09	2020-08-09	Tom Twain	TX
Edit	Copy	Delete	2001	August	Raja Ravi Varma	1970-09-19	TX	Shakuntala	painting	50000	2000-09-27	2001-08-19	2001-08-19	NULL	NULL	NULL	NULL

| Console | | | | | | | | | | | | | Bookmarks | Options | History | Clear | NULL |

Edit	Copy	Delete	1999	August	Sunil Das	1985-08-01	TX	Blue Horse	sculpture	20000	1989-08-01	1999-08-15	1999-08-15	2020-07-07	2020-07-07	Maya Mor Options
Edit	Copy	Delete	1999	September	Sunil Das	1985-08-01	TX	The Lady	painting	30000	1989-09-01	1999-09-17	1999-09-17	NULL	NULL	NULL	
Edit	Copy	Delete	1999	October	Sunil Das	1985-08-01	TX	Horse in MoonLight	painting	40000	1989-10-01	1999-10-21	1999-10-21	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2000	May	Jasper Johns	1970-01-02	TX	Flag	painting	12000	2000-01-01	2000-05-05	2000-05-05	NULL	NULL	NULL	NULL
Edit	Copy	Delete	2000	December	Jasper Johns	1970-01-02	TX	Three Flags	painting	11500	2000-09-19	2000-12-12	2000-12-12	2000-12-19	2000-12-19	Jay Steinbeck	TX
Edit	Copy	Delete	2000	December	Jasper Johns	1970-01-02	TX	Three Flags	painting	11500	2000-09-19	2000-12-12	2000-12-12	2000-12-19	2000-12-19	Linda Steinbeck	TX

Q2: Use the view ArtworkInfo to list the names of the artists, their state, customer name, and the customer state for artists whose artwork has been bought by a customer who lives in a state other than where the artist lives. Write a query to verify that your list of Artist names is correct.

SELECT `ArtistName`, `ArtistState`, `CustomerName`, `CustomerState`
FROM artworkinfo A
WHERE NOT A.ArtistState = A.CustomerState;

Showing rows 0 - 13 (14 total, Query took 0.0033 seconds.)

SELECT `ArtistName`, `ArtistState`, `CustomerName`, `CustomerState` FROM artworkinfo A WHERE NOT A.ArtistState = A.CustomerState;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ∨   Filter rows: Search this table

+ Options

ArtistName	ArtistState	CustomerName	CustomerState
Manishi Dey	KS	Elena Lee	TX
Manishi Dey	KS	Harper Lee	TX
Manishi Dey	KS	Scott Green	TX
Manishi Dey	KS	Mary Green	TX
Nandalal Bose	KS	Tom Twain	TX
Albert Bierstadt	KS	Wu Ming	TX
Albert Bierstadt	KS	Dia Davidar	LA
Albert Bierstadt	KS	Anil Desai	LA
Edward Hopper	KS	Amitav Ghosh	LA
Georgia O'Keeffe	TX	Ben Okri	LA
Georgia O'Keeffe	TX	Helon Habila	NM
Li Chen	OK	Ana Castillo	NM
Zhan Wang	OK	Carlos Fuentes	NM
Zhan Wang	OK	Cristina Fuentes	NM

Verification of Q2 without using ArtworkInfo

SELECT A.name AS 'Artist Name', A.stateAb AS 'Artist State', C.name AS 'Customer Name', C.stateAb AS 'Customer State'
FROM ARTIST A, CUSTOMER C, ARTWORK A2, BOUGHT B
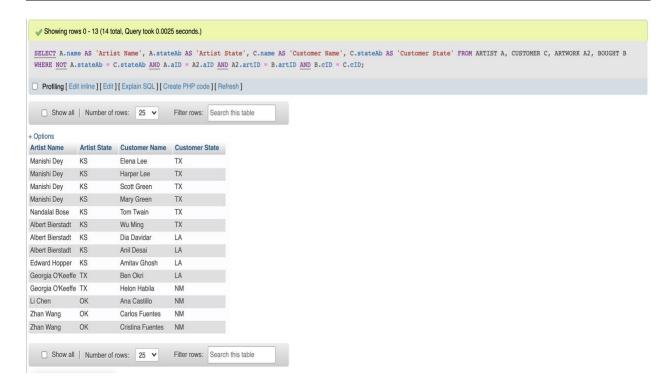WHERE NOT A.stateAb = C.stateAb AND A.aID = A2.aID AND A2.artID = B.artID AND B.cID = C.cID;

Showing rows 0 - 13 (14 total, Query took 0.0025 seconds.)

SELECT A.name AS 'Artist Name', A.stateAb AS 'Artist State', C.name AS 'Customer Name', C.stateAb AS 'Customer State' FROM ARTIST A, CUSTOMER C, ARTWORK A2, BOUGHT B WHERE NOT A.stateAb = C.stateAb AND A.aID = A2.aID AND A2.artID = B.artID AND B.cID = C.cID;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ∨ | Filter rows: Search this table

+ Options

Artist Name	Artist State	Customer Name	Customer State
Manishi Dey	KS	Elena Lee	TX
Manishi Dey	KS	Harper Lee	TX
Manishi Dey	KS	Scott Green	TX
Manishi Dey	KS	Mary Green	TX
Nandalal Bose	KS	Tom Twain	TX
Albert Bierstadt	KS	Wu Ming	TX
Albert Bierstadt	KS	Dia Davidar	LA
Albert Bierstadt	KS	Anil Desai	LA
Edward Hopper	KS	Amitav Ghosh	LA
Georgia O'Keeffe	TX	Ben Okri	LA
Georgia O'Keeffe	TX	Helon Habila	NM
Li Chen	OK	Ana Castillo	NM
Zhan Wang	OK	Carlos Fuentes	NM
Zhan Wang	OK	Cristina Fuentes	NM

Show all | Number of rows: 25 ∨ | Filter rows: Search this table

Q3: Use the view to list the names of artists and the number of customers they have so far. Sort the result by the artist name.

SELECT `ArtistName`, COUNT(`CustomerName`) AS 'No. of Customers'
FROM artworkinfo
GROUP BY `ArtistName`
ORDER BY `ArtistName`;

Showing rows 0 - 20 (21 total, Query took 0.0015 seconds.) [ArtistName: **ABDUR RAHMAN... - ZHAN WANG...**]

SELECT `ArtistName`, COUNT(`CustomerName`) AS 'No. of Customers' FROM artworkinfo GROUP BY `ArtistName` ORDER BY `ArtistName`;

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

+ Options

ArtistName ▲ 1	No. of Customers
Abdur Rahman	0
Abed Abdi	3
Albert Bierstadt	3
Edward Hopper	1
Ekene Maduka	0
Georgia O'Keeffe	2
Ismail Gulg	0
Jasper Johns	3
Kalipada Ghoshal	0
Koki Tanaka	0
Li Chen	1
Manishi Dey	4
Modupeola Fadugba	0
Nandalal Bose	1
Olu Amoda	0
Raja Ravi Varma	0
Shakir Ali	1
Sunil Das	1
Tatsuo Miyajima	0
Winslow Homer	0
Zhan Wang	2

Q4: Use the view to list the names of artists and the number of artworks they have so far available in the Art Gallery.

```
SELECT `ArtistName`, COUNT(*) AS 'No. of Artworks Available'
FROM artworkinfo
WHERE `Sale Date` IS NULL
GROUP BY `ArtistName`;
```

Showing rows 0 - 17 (18 total, Query took 0.0018 seconds.)

SELECT `ArtistName`, COUNT(*) AS 'No. of Artworks Available' FROM artworkinfo WHERE `Sale Date` IS NULL GROUP BY `ArtistName`;

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table

+ Options

ArtistName	No. of Artworks Available
Abdur Rahman	1
Abed Abdi	1
Albert Bierstadt	9
Edward Hopper	4
Ekene Maduka	1
Georgia O'Keeffe	7
Ismail Gulg	2
Jasper Johns	2
Kalipada Ghoshal	1
Koki Tanaka	1
Manishi Dey	2
Modupeola Fadugba	1
Olu Amoda	1
Raja Ravi Varma	1
Shakir Ali	1
Sunil Das	3
Tatsuo Miyajima	1
Winslow Homer	5

Q5: Use the view ArtworkInfo to list the names of the artists along with the number of artworks, minimum, and maximum price of their artwork.

How can you verify that your results are correct?

SELECT `ArtistName`, COUNT(DISTINCT `Title`) AS 'No. of Artworks',
MAX(`ArtworkPrice`) AS 'Maximum Price', MIN(`ArtworkPrice`) AS 'Minimum Price'
FROM `artworkinfo`
GROUP BY `ArtistName`;

| Browse | Structure | SQL | Search | Insert | Export | Privileges | Operations | Tracking |

Showing rows 0 - 20 (21 total, Query took 0.0055 seconds.)

```
SELECT `ArtistName`, COUNT(DISTINCT `Title`) AS 'No. of Artworks', MAX(`ArtworkPrice`) AS 'Maximum Price', MIN(`ArtworkPrice`) AS 'Minimum Price' FROM `artworkinfo`
GROUP BY `ArtistName`;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾   Filter rows: Search this table

+ Options

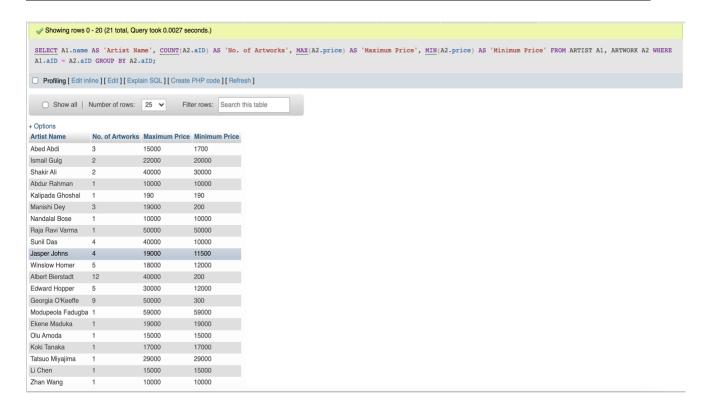| ArtistName	No. of Artworks	Maximum Price	Minimum Price
Abdur Rahman	1	10000	10000
Abed Abdi	3	15000	1700
Albert Bierstadt	12	40000	200
Edward Hopper	5	30000	12000
Ekene Maduka	1	19000	19000
Georgia O'Keeffe	9	50000	300
Ismail Gulg	2	22000	20000
Jasper Johns	4	19000	11500
Kalipada Ghoshal	1	190	190
Koki Tanaka	1	17000	17000
Li Chen	1	15000	15000
Manishi Dey	3	19000	200
Modupeola Fadugba	1	59000	59000
Nandalal Bose	1	10000	10000
Olu Amoda	1	15000	15000
Raja Ravi Varma	1	50000	50000
Shakir Ali	2	40000	30000
Sunil Das	4	40000	10000
Tatsuo Miyajima	1	29000	29000
Winslow Homer	5	18000	12000
Zhan Wang	1	10000	10000

Verification of Q5 without using ArtworkInfo:

SELECT A1.name AS 'Artist Name', COUNT(A2.aID) AS 'No. of Artworks', MAX(A2.price)
AS 'Maximum Price', MIN(A2.price) AS 'Minimum Price'
FROM ARTIST A1, ARTWORK A2
WHERE A1.aID = A2.aID
GROUP BY A2.aID;

Showing rows 0 - 20 (21 total, Query took 0.0027 seconds.)

SELECT A1.name AS 'Artist Name', COUNT(A2.aID) AS 'No. of Artworks', MAX(A2.price) AS 'Maximum Price', MIN(A2.price) AS 'Minimum Price' FROM ARTIST A1, ARTWORK A2 WHERE A1.aID = A2.aID GROUP BY A2.aID;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

+ Options

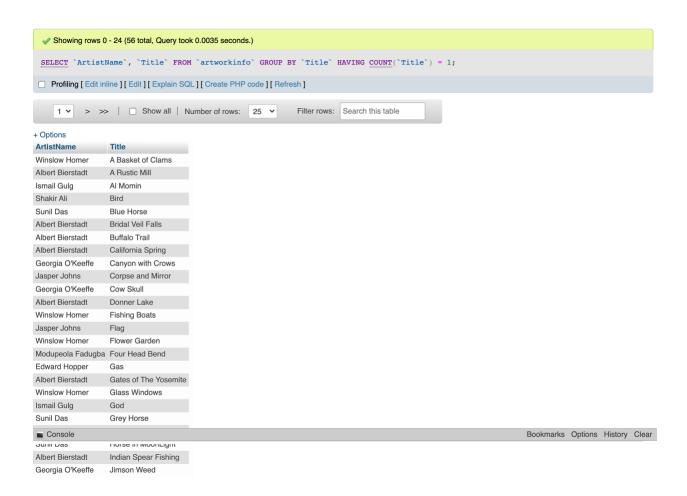| Artist Name	No. of Artworks	Maximum Price	Minimum Price
Abed Abdi	3	15000	1700
Ismail Gulg	2	22000	20000
Shakir Ali	2	40000	30000
Abdur Rahman	1	10000	10000
Kalipada Ghoshal	1	190	190
Manishi Dey	3	19000	200
Nandalal Bose	1	10000	10000
Raja Ravi Varma	1	50000	50000
Sunil Das	4	40000	10000
Jasper Johns	4	19000	11500
Winslow Homer	5	18000	12000
Albert Bierstadt	12	40000	200
Edward Hopper	5	30000	12000
Georgia O'Keeffe	9	50000	300
Modupeola Fadugba	1	59000	59000
Ekene Maduka	1	19000	19000
Olu Amoda	1	15000	15000
Koki Tanaka	1	17000	17000
Tatsuo Miyajima	1	29000	29000
Li Chen	1	15000	15000
Zhan Wang	1	10000	10000

Q6: Use the view ArtworkInfo to list the names of the artists along with the artwork titles and the number of owners if the artwork was owned by more than 1 customer.

SELECT `ArtistName`, `Title`, COUNT(`Title`) AS 'No. of Owners'
FROM `artworkinfo`
GROUP BY `Title`
HAVING COUNT(`Title`) > 1;

✔ Showing rows 0 - 3 (4 total, Query took 0.0027 seconds.)

SELECT `ArtistName`, `Title`, COUNT(`Title`) AS 'No. of Owners' FROM `artworkinfo` GROUP BY `Title` HAVING COUNT(`Title`) > 1;

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ∨   Filter rows: Search this table

+ Options

ArtistName	Title	No. of Owners
Zhan Wang	Mirror Grden	2
Manishi Dey	Musician	4
Abed Abdi	Refugee Camp	2
Jasper Johns	Three Flags	2

☐ Show all | Number of rows: 25 ∨   Filter rows: Search this table

Q7: Use the view ArtworkInfo to list the names of the artists and the artwork titles if the artwork was owned by only 1 customer

SELECT `ArtistName`, `Title`
FROM `artworkinfo`
GROUP BY `Title`
HAVING COUNT(`Title`) = 1;

Showing rows 0 - 24 (56 total, Query took 0.0035 seconds.)

SELECT `ArtistName`, `Title` FROM `artworkinfo` GROUP BY `Title` HAVING COUNT(`Title`) = 1;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

1 ▾ > >> | □ Show all | Number of rows: 25 ▾ Filter rows: Search this table

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ArtistName	Title
Winslow Homer	A Basket of Clams
Albert Bierstadt	A Rustic Mill
Ismail Gulg	Al Momin
Shakir Ali	Bird
Sunil Das	Blue Horse
Albert Bierstadt	Bridal Veil Falls
Albert Bierstadt	Buffalo Trail
Albert Bierstadt	California Spring
Georgia O'Keeffe	Canyon with Crows
Jasper Johns	Corpse and Mirror
Georgia O'Keeffe	Cow Skull
Albert Bierstadt	Donner Lake
Winslow Homer	Fishing Boats
Jasper Johns	Flag
Winslow Homer	Flower Garden
Modupeola Fadugba	Four Head Bend
Edward Hopper	Gas
Albert Bierstadt	Gates of The Yosemite
Winslow Homer	Glass Windows
Ismail Gulg	God
Sunil Das	Grey Horse

■ Console   Bookmarks Options History Clear

Sunil Das	Horse in MoonLight
Albert Bierstadt	Indian Spear Fishing
Georgia O'Keeffe	Jimson Weed

Honor Code:

HONOR CODE

I pledge, on my honor, to uphold
UT Arlington tradition of academic
integrity, a tradition that values hard
work and honest effort in pursuit of
academic excellence.

I promise that I will submit only work
that I personally create or that I
contribute to group collaborations, and
I will appropriately reference any work
from other sources. I will follow the
highest standards of integrity and
uphold the spirit of the honor code.

I will not participate in any form of
cheating/sharing the questions/solutions.

PVShah

November 29, 2021
Parshva Shah
1001838879

HONOR CODE :

I pledge, on my honor, to upload UT Arlington's tradition of
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integrity and uphold the spirit of the Honor Code

I will not participate in any form of cheating / sharing the
questions / solutions

Correia

Glen Correia
ID: 1001980331
Date: November 29, 2021