

PROJECT PHASE 2

PART 1 : - Create statement queries

1. 'state' table –

```
CREATE TABLE `artgalleryproject`.`state` (
  `STATEAB` VARCHAR(10) NOT NULL ,
  `STATENAME` TEXT NOT NULL ,
  PRIMARY KEY (`STATEAB `)) ENGINE = InnoDB;
```

The screenshot shows the phpMyAdmin interface for the 'artgalleryproject' database. The 'Table structure' tab is selected, displaying the structure of the 'state' table. The table has two columns: 'STATEAB' (VARCHAR(10)) and 'STATENAME' (TEXT). Both columns are marked as 'NOT NULL' and have a 'utf8mb4_general_ci' collation. The 'STATEAB' column is the primary key. The 'Indexes' section shows a primary index named 'PRIMARY' of type 'BTREE' on the 'STATEAB' column. The 'Partitions' section indicates that no partitioning is defined. The 'Information' section provides details about the table's storage, including data size (16.0 KiB), index size (0 B), and creation/update times.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	STATEAB	varchar(10)	utf8mb4_general_ci		No	None		
2	STATENAME	text	utf8mb4_general_ci		No	None		

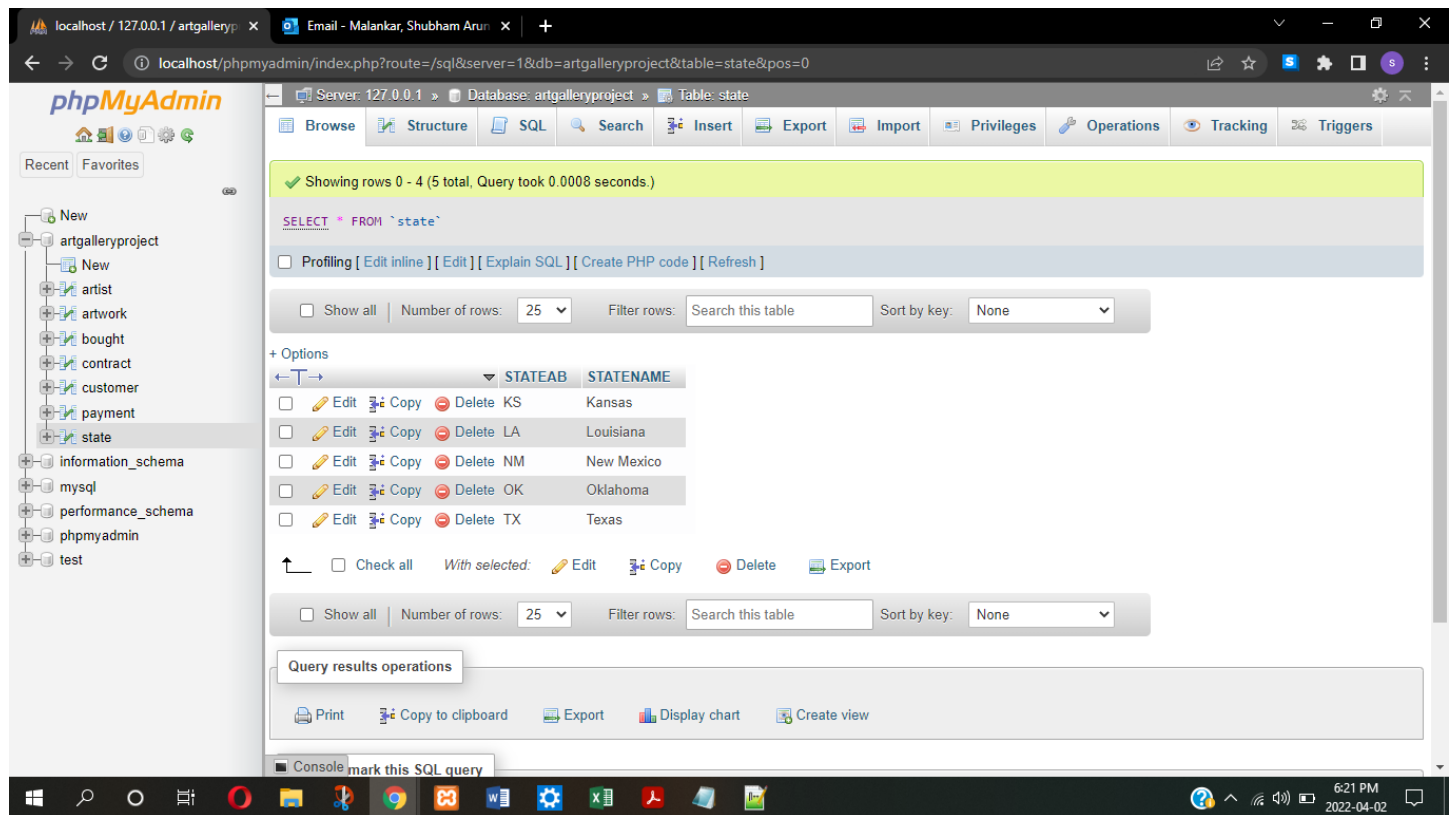
Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	STATEAB	6	A	No	

No partitioning defined!

Data			Format	
Data	16.0	KiB	Format	dynamic
Index	0	B	Collation	utf8mb4_general_ci
Overhead	0	B	Next autoindex	0
Effective	16.0	KiB	Creation	Apr 02, 2022 at 05:21 PM
Total	16.0	KiB	Last update	Apr 03, 2022 at 01:18 AM
Space usage			Last check	Apr 03, 2022 at 01:18 AM

Row statistics

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2. 'artist' table –

```
CREATE TABLE `artgalleryproject`.`artist` (
  `AID` INT(50) NOT NULL ,
  `NAME` TEXT NOT NULL ,
  `BIRTHDATE` DATE NOT NULL ,
  `DEATHDATE` DATE NULL DEFAULT NULL ,
  `COMMISSION` INT(50) NOT NULL ,
  `STREET` VARCHAR(500) NOT NULL ,
  `CITY` TEXT NOT NULL ,
  `STATEAB` VARCHAR(10) NOT NULL ,
  `ZIPCODE` VARCHAR(15) NOT NULL ,
  PRIMARY KEY (`AID`),
  FOREIGN KEY(STATEAB) REFERENCES state(STATEAB)) ENGINE = InnoDB;
```

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localhost/phpmyadmin/index.php?route=/table/structure&db=artgalleryproject&table=artist

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	AID	int(50)			No	None		
2	NAME	text	utf8mb4_general_ci		No	None		
3	BIRTHDATE	date			No	None		
4	DEATHDATE	date			Yes	NULL		
5	COMMISSION	int(50)			No	None		
6	STREET	varchar(500)	utf8mb4_general_ci		No	None		
7	CITY	text	utf8mb4_general_ci		No	None		
8	STATEAB	varchar(10)	utf8mb4_general_ci		No	None		
9	ZIPCODE	varchar(15)	utf8mb4_general_ci		No	None		

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	AID	20	A	No	
STATEAB	BTREE	No	No	STATEAB	6	A	No	

Partitions

No partitioning defined!

Information

Windows taskbar: 6:23 PM 2022-04-02

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localhost/phpmyadmin/index.php?route=/sql&server=1&db=artgalleryproject&table=artist&pos=0

Showing rows 0 - 20 (21 total, Query took 0.0019 seconds.) [AID: 1... - 21...]

SELECT * FROM `artist` ORDER BY `AID` ASC

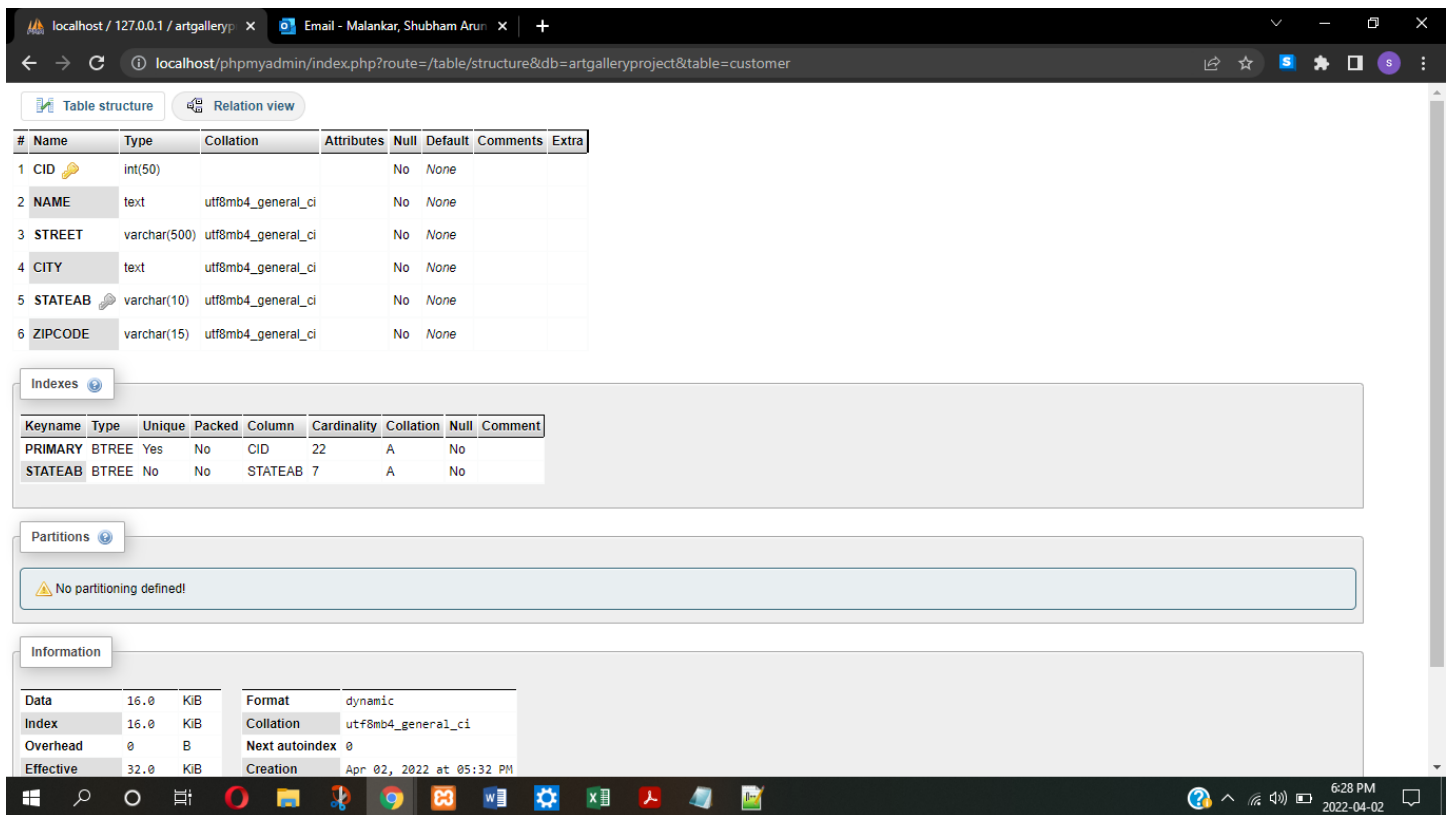
AID	NAME	BIRTHDATE	DEATHDATE	COMMISSION	STREET	CITY	STATEAB	ZIPCODE
1	Abed Abdi	2000-01-01	NULL		10 309 Hcounty Road	Abbott	TX	76621-0057
2	Ismail Gulg	1990-01-03	NULL		11 405 E Mesquite Street	Abbott	TX	76621-0057
3	Shakir Ali	1995-02-04	NULL		12 5000 Spectrum Street	Addison	TX	75001-6880
4	Abdur Rahman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

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3. 'customer' table –

```
CREATE TABLE `artgalleryproject`.`customer` (
  `CID` INT(50) NOT NULL ,
  `NAME` TEXT NOT NULL ,
  `STREET` VARCHAR(500) NOT NULL ,
  `CITY` TEXT NOT NULL ,
  `STATEAB` VARCHAR(10) NOT NULL ,
  `ZIPCODE` INT(10) NOT NULL ,
  PRIMARY KEY (`CID`),
  FOREIGN KEY(STATEAB) REFERENCES state(STATEAB)) ENGINE = InnoDB;
```



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localhost/phpmyadmin/index.php?route=/table/structure&db=artgalleryproject&table=customer

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	CID	int(50)			No	None		
2	NAME	text	utf8mb4_general_ci		No	None		
3	STREET	varchar(500)	utf8mb4_general_ci		No	None		
4	CITY	text	utf8mb4_general_ci		No	None		
5	STATEAB	varchar(10)	utf8mb4_general_ci		No	None		
6	ZIPCODE	varchar(15)	utf8mb4_general_ci		No	None		

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	CID	22	A	No	
STATEAB	BTREE	No	No	STATEAB	7	A	No	

Partitions

No partitioning defined!

Information

Data	16.0	KiB	Format	dynamic
Index	16.0	KiB	Collation	utf8mb4_general_ci
Overhead	0	B	Next autoindex	0
Effective	32.0	KiB	Creation	Apr 02, 2022 at 05:32 PM

6:28 PM 2022-04-02

Showing rows 0 - 21 (22 total, Query took 0.0022 seconds.) [CID: 1... - 22...]

SELECT * FROM `customer` ORDER BY `CID` ASC

CID	NAME	STREET	CITY	STATEAB	ZIPCODE
1	Mahbod Seraji	1500 E Exchange Road	Allen	TX	75002-4504
2	Shazadi Seraji	1500 E Exchange Road	Allen	TX	75002-4504
3	Nadia Hashimi	1405 Julian Street	Addison	TX	75001-4633
4	Tahmima Anam	11200 Graceland Lane	Frisco	TX	75033-0062
5	Elena Lee	800 Preston Road	Gunter	TX	75058-0001
6	Harper Lee	800 Preston Road	Gunter	TX	75058-0001
7	Scott Green	150 Main Road	Gunter	TX	75058-0001
8	Mary Green	150 Main Road	Gunter	TX	75058-0001
9	Tom Twain	1010 Spicewood Drive	Garland	TX	75044-2569
10	Maya Morrison	2018 N Travis Street	Sherman	TX	75090-0006
11	Jay Steinbeck	1092 Old Kaufman Road	Kemp	TX	75143-0001
12	Linda Steinbeck	6400 Shortland Drive	Dallas	TX	75248-7405
13	Randy Bradbury	1200 Speed Street	Marshall	TX	75670-0001
14	Wu Ming	125 Sterling Price Street	Tatum	TX	75691-0809
15	Dia Davidar	486 River Side Road	Baton Rouge	LA	70801-1106
16	Anil Desai	100 New Ramah Road	Castor	LA	71016-2402
17	Amitav Ghosh	200 W Main Street	Homer	LA	71040-1021
18	Ben Okri	500 Angi Road	Minden	LA	71055-1004
19	Helon Habila	1 Main Street	Sunspot	NM	88349-9800
20	Ana Castillo	PO BOX 560	Weed	NM	88364-9700
21	Carlos Fuentes	5000 Quay Road	Bard	NM	88411-9708
22	Cristina Fuentes	250 Bailey Road	Cuervo	NM	88417-6606

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4. 'artwork' table –

```
CREATE TABLE `artgalleryproject`.`artwork` (
  `AID` INT(50) NOT NULL ,
  `ARTID` INT(50) NOT NULL ,
  `TITLE` TEXT NOT NULL ,
  `CREATIONDATE` DATE NOT NULL ,
  `ACQUISITIONDATE` DATE NOT NULL ,
  `PRICE` DECIMAL(11,2) NOT NULL ,
  `FORM` TEXT NOT NULL ,
  PRIMARY KEY (`ARTID`),
  FOREIGN KEY(aid) REFERENCES artist(AID)) ENGINE = InnoDB;
```

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localhost/phpmyadmin/index.php?route=/table/structure&db=artgalleryproject&table=artwork

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	AID	int(50)			No	None		
2	ARTID	int(50)			No	None		
3	TITLE	text	utf8mb4_general_ci		No	None		
4	CREATIONDATE	date			No	None		
5	ACQUISITIONDATE	date			No	None		
6	PRICE	decimal(11,2)			No	None		
7	FORM	text	utf8mb4_general_ci		No	None		

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	ARTID	60	A	No	
AID	BTREE	No	No	AID	60	A	No	

Partitions

No partitioning defined!

Information

Data	16.0	KiB	Format	dynamic
Index	32.0	KiB	Collation	utf8mb4_general_ci

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localhost/phpmyadmin/index.php?route=/sql&db=artgalleryproject&table=artwork&pos=0

Showing rows 0 - 59 (60 total, Query took 0.0010 seconds.) [ARTID: 1... - 60...]

SELECT * FROM `artwork` ORDER BY `ARTID` ASC

AID	ARTID	TITLE	CREATIONDATE	ACQUISITIONDATE	PRICE	FORM
1	1	Refugee Camp	2020-09-09	2021-02-07	12000.00	painting
1	2	Waiting	2020-12-28	2021-02-07	15000.00	painting
1	3	Palestinian Women	2021-01-01	2021-02-07	1700.00	painting
2	4	Al Momin	1920-02-19	1921-03-09	20000.00	painting
2	5	God	1921-01-01	1921-07-08	22000.00	painting
3	6	Bird	2021-02-04	2021-05-04	40000.00	sculpture
3	7	Leaves	2021-01-04	2021-07-07	30000.00	sculpture
4	8	The Holy Man	2014-01-01	2014-01-02	10000.00	sculpture
5	9	Salvador Dali	2014-01-01	2015-01-01	190.00	print
6	10	Landscape	2019-01-25	2020-01-01	200.00	print
6	11	Musician	2020-01-25	2021-01-01	15000.00	sculpture
6	12	Sunset	2020-06-25	2021-08-01	19000.00	painting
7	13	Singawala	2015-05-20	2017-07-02	10000.00	painting
8	14	Shakuntala	2000-09-27	2001-08-19	50000.00	painting
9	15	Grey Horse	1989-07-01	1999-07-10	10000.00	painting
9	16	Blue Horse	1989-08-01	1999-08-15	20000.00	sculpture
9	17	The Lady	1989-09-01	1999-09-17	30000.00	painting
9	18	Horse in MoonLight	1989-10-01	1999-10-21	40000.00	painting
10	19	Flag	2000-01-01	2000-05-05	12000.00	painting
10	20	Three Flags	2000-09-19	2000-12-12	11500.00	painting
10	21	Corpse and Mirror	2015-01-01	2016-01-01	14000.00	painting
10	22	Map	2017-08-09	2018-12-12	19000.00	painting
11	23	Fishing Boats	1990-01-10	1991-10-19	12000.00	painting
11	24	The Gulf Stream	1992-03-04	1993-03-04	15000.00	painting
11	25	A Basket of Clams	1993-04-05	1994-04-05	16000.00	painting

10	21	Corpse and Mirror	2015-01-01	2016-01-01	14000.00	painting
10	22	Map	2017-08-09	2018-12-12	19000.00	painting
11	23	Fishing Boats	1990-01-10	1991-10-19	12000.00	painting
AID	ARTID	TITLE	CREATIONDATE	ACQUISITIONDATE	PRICE	FORM
11	25	A Basket of Clams	1993-04-05	1994-04-05	16000.00	painting
11	26	Glass Windows	1993-05-07	1993-07-29	12000.00	painting
11	27	Flower Garden	1999-05-01	1999-08-03	18000.00	painting
12	28	Mount Hood	1995-09-10	1995-09-12	200.00	print
12	29	Buffalo Trail	1995-09-10	1995-09-12	200.00	print
12	30	Indian Spear Fishing	1995-09-10	1995-09-12	200.00	print
12	31	Sunset in the Rockies	1995-09-10	1995-09-12	200.00	print
12	32	Donner Lake	1995-09-10	1995-09-12	200.00	print
12	33	Bridal Veil Falls	1995-09-10	1995-09-12	200.00	print
12	34	A Rustic Mill	1995-09-10	1995-09-12	200.00	print
12	35	Street in Nassau	1995-09-10	1995-09-12	200.00	print
12	36	Gates of The Yosemite	1995-09-10	1995-09-12	200.00	print
12	37	California Spring	1995-09-10	1995-09-12	200.00	print
12	38	The Wolf River	1995-09-10	1995-09-12	200.00	print
12	39	Mount Corcoran	1989-09-10	1995-09-12	40000.00	painting
13	40	Night Windows	2000-09-05	2000-12-05	30000.00	painting
13	41	Ground Swell	1990-06-20	2020-07-02	15000.00	painting
13	42	Morning Sun	1995-01-01	2020-07-02	12000.00	painting
13	43	Gas	1990-09-20	2020-07-02	22000.00	painting
13	44	Nighthawks	2000-09-11	2000-09-15	25000.00	sculpture
14	45	Oriental Poppies	2020-04-09	2021-06-19	20000.00	painting
14	46	Rocky Mountains	2014-09-18	2016-08-20	40000.00	painting
14	47	Canyon with Crows	2018-06-06	2018-06-08	50000.00	painting
14	48	Unexpected	2011-07-09	2011-07-11	300.00	print
14	49	Leaf Motif	2011-07-09	2011-07-11	350.00	print
14	50	Jimson Weed	2018-01-09	2019-07-04	18000.00	painting
14	51	The Black Place	2018-09-19	2019-11-12	22000.00	painting

12	38	The Wolf River	1995-09-10	1995-09-12	200.00	print
12	39	Mount Corcoran	1989-09-10	1995-09-12	40000.00	painting
13	40	Night Windows	2000-09-05	2000-12-05	30000.00	painting
AID	ARTID	TITLE	CREATIONDATE	ACQUISITIONDATE	PRICE	FORM
13	42	Morning Sun	1995-01-01	2020-07-02	12000.00	painting
13	43	Gas	1990-09-20	2020-07-02	22000.00	painting
13	44	Nighthawks	2000-09-11	2000-09-15	25000.00	sculpture
14	45	Oriental Poppies	2020-04-09	2021-06-19	20000.00	painting
14	46	Rocky Mountains	2014-09-18	2016-08-20	40000.00	painting
14	47	Canyon with Crows	2018-06-06	2018-06-08	50000.00	painting
14	48	Unexpected	2011-07-09	2011-07-11	300.00	print
14	49	Leaf Motif	2011-07-09	2011-07-11	350.00	print
14	50	Jimson Weed	2018-01-09	2019-07-04	18000.00	painting
14	51	The Black Place	2018-09-19	2019-11-12	22000.00	painting
14	52	Cow Skull	2019-07-16	2020-12-12	18000.00	painting
14	53	Sky Above Clouds	2018-07-15	2018-07-16	21000.00	painting
15	54	Four Head Bend	2020-07-09	2021-08-09	59000.00	painting
16	55	Win Some Lose Some	2015-07-04	2018-07-06	19000.00	painting
17	56	Polygraph	2018-04-05	2020-04-07	15000.00	sculpture
18	57	Old House in Seoul	2015-01-10	2017-01-09	17000.00	sculpture
19	58	Time Waterfall	2020-05-05	2021-01-08	29000.00	sculpture
20	59	Twilight Breeze	2020-10-08	2020-10-25	15000.00	painting
21	60	Mirror Grcden	2015-01-01	2016-07-07	10000.00	sculpture

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5. 'contract' table –

```
CREATE TABLE `artgalleryproject`.`contract` (
  `AID` INT(50) NOT NULL ,
  `COID` INT(50) NOT NULL ,
  `STARTDATE` DATE NOT NULL ,
  `ENDDATE` DATE NOT NULL ,
  `MRATE` INT(50) NOT NULL ,
  `ORNAME` TEXT NOT NULL ,
  PRIMARY KEY (`COID`, `AID`)) ENGINE = InnoDB;
```

The screenshot displays the phpMyAdmin interface for the 'artgalleryproject' database. The 'Table structure' tab is active, showing the following table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	AID	int(50)			No	None		
2	COID	int(50)			No	None		
3	STARTDATE	date			No	None		
4	ENDDATE	date			No	None		
5	MRATE	int(50)			No	None		
6	ORNAME	text	utf8mb4_general_ci		No	None		

The 'Indexes' tab shows a primary index on COID and AID:

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	COID	12	A	No	
				AID	12	A	No	

The 'Partitions' tab indicates that no partitioning is defined for this table.

The 'Information' tab provides details about the table's storage and format:

Item	Value	Unit	Item	Value
Data	16.0	KiB	Format	dynamic
Index	0	B	Collation	utf8mb4_general_ci
Overhead	0	B	Next autoindex	0
Effective	16.0	KiB	Creation	Apr 02, 2022 at 02:51 AM

Showing rows 0 - 11 (12 total, Query took 0.0010 seconds.) [AID: 5... - 16...]

SELECT * FROM `contract` ORDER BY `AID` ASC

AID	COID	STARTDATE	ENDDATE	MRATE	ORGNAME
5	1	2020-10-09	2021-10-09	2000	Dallas Museum of Art
5	2	2020-10-09	2021-10-09	2000	Kimbal Art Museum
5	3	2020-10-09	2021-10-09	2000	Arlington Museum of Art
8	1	2000-10-10	2001-09-09	1500	Dallas Museum of Art
8	2	2000-10-10	2001-09-09	1500	Kimbal Art Museum
8	3	2000-10-10	2001-09-09	1500	Arlington Museum of Art
14	1	2019-10-10	2020-09-09	1800	Arlington Museum of Art
16	1	2015-10-10	2016-09-09	1500	Kimbal Art Museum
16	2	2016-10-10	2017-09-09	1600	Kimbal Art Museum
16	3	2017-10-10	2018-09-09	1700	Kimbal Art Museum
16	4	2018-10-10	2019-09-09	1700	Kimbal Art Museum
16	5	2019-10-10	2020-09-09	1800	Kimbal Art Museum

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6. 'bought' table –

```
CREATE TABLE `artgalleryproject`.`bought` (
  `ARTID` INT(50) NOT NULL ,
  `CID` INT(50) NOT NULL ,
  `SALEDATE` DATE NOT NULL ,
  FOREIGN KEY(ARTID) REFERENCES artwork(ARTID),
  FOREIGN KEY(CID) REFERENCES customer(CID)) ENGINE = InnoDB;
```

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localhost/phpmyadmin/index.php?route=/table/structure&db=artgalleryproject&table=bought

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	ARTID	int(50)			No	None		
2	CID	int(50)			No	None		
3	SALEDATE	date			No	None		

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
ARTID	BTREE	No	No	ARTID	22	A	No	
CID	BTREE	No	No	CID	22	A	No	

Partitions

No partitioning defined!

Information

Data	16.0	KiB	Format	dynamic
Index	32.0	KiB	Collation	utf8mb4_general_ci
Overhead	0	B	Next autoindex	0
Effective	48.0	KiB	Creation	Apr 01, 2022 at 04:32 PM
Total	48.0	KiB	Last update	Apr 03, 2022 at 01:38 AM
Space usage			Last check	Apr 03, 2022 at 01:38 AM

Row statistics

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localhost/phpmyadmin/index.php?route=/sql&server=1&db=artgalleryproject&table=bought&pos=0

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 21 (22 total. Query took 0.0014 seconds.)

SELECT * FROM `bought`

ARTID	CID	SALEDATE
1	1	2021-07-08
1	2	2021-07-08
3	3	2021-08-08
6	4	2021-07-07
11	5	2021-08-08
11	6	2021-08-08
11	7	2021-08-08
11	8	2021-08-08
13	9	2020-08-09
16	10	2020-07-07
20	11	2000-12-19
20	12	2000-12-19
22	13	2020-12-10
28	14	2021-09-12
35	15	2019-03-03
38	16	2018-02-02
42	17	2020-10-10
49	18	2020-08-09
50	19	2020-08-09
59	20	2020-07-07
60	21	2018-09-10
60	22	2018-09-10

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7. 'payment' table –

```
CREATE TABLE `artgalleryproject`.`payment` (
  `PID` INT(50) NOT NULL ,
  `ARTID` INT(50) NOT NULL ,
  `UPFRONTDATE` DATE NOT NULL ,
  `FINALDATE` DATE NULL DEFAULT NULL ,
  PRIMARY KEY (`PID`),
  FOREIGN KEY(ARTID) REFERENCES artwork(ARTID)) ENGINE = InnoDB;
```

The screenshot shows the phpMyAdmin interface for the 'artgalleryproject' database. The 'Table structure' tab is selected, displaying the following table structure:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	PID	int(50)			No	None		
2	ARTID	int(50)			No	None		
3	UPFRONTDATE	date			No	None		
4	FINALDATE	date			Yes	NULL		

The 'Indexes' tab is also visible, showing the following indexes:

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	PID	60	A	No	
ARTID	BTREE	No	No	ARTID	60	A	No	

The 'Partitions' tab shows a message: "No partitioning defined!". The 'Information' tab shows the following details:

Item	Value	Unit
Data	16.0	KiB
Index	16.0	KiB
Overhead	0	B
Effective	32.0	KiB
Total	32.0	KiB

Additional information includes:

- Format: dynamic
- Collation: utf8mb4_general_ci
- Next autoindex: 0
- Creation: Apr 01, 2022 at 04:35 PM
- Last update: Apr 03, 2022 at 01:41 AM
- Last check: Apr 03, 2022 at 01:41 AM

Shubham M

localhost / 127.0.0.1 / artgalleryp x Email - Malankar, Shubham Arun x +

localhost/phpmyadmin/index.php?route=/sql&db=artgalleryproject&table=payment&pos=0

Showing rows 0 - 59 (60 total, Query took 0.0010 seconds.) [ARTID: 1... - 60...]

SELECT * FROM `payment` ORDER BY `ARTID` ASC

PID	ARTID	UPFRONTDATE	FINALDATE
1	1	2021-02-08	2021-07-08
2	2	2021-02-08	NULL
3	3	2021-02-08	2021-08-08
4	4	1921-03-11	NULL
5	5	1921-07-08	NULL
6	6	2021-05-04	2021-07-07
7	7	2021-07-07	NULL
8	8	2014-01-02	NULL
9	9	2015-01-01	NULL
10	10	2020-01-01	NULL
11	11	2021-01-01	2021-08-08
12	12	2021-08-01	NULL
13	13	2017-07-02	2020-08-09
14	14	2001-08-19	NULL
15	15	1999-07-10	NULL
16	16	1999-08-15	2020-07-07
17	17	1999-09-17	NULL
18	18	1999-10-21	NULL
19	19	2000-05-05	NULL
20	20	2000-12-12	2000-12-19
21	21	2016-01-01	NULL
22	22	2018-12-12	2020-12-10
23	23	1991-10-19	NULL
24	24	1993-03-04	NULL
25	25	1994-04-05	NULL

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localhost/phpmyadmin/index.php?route=/sql&db=artgalleryproject&table=payment&pos=0

Showing rows 0 - 59 (60 total, Query took 0.0010 seconds.) [ARTID: 1... - 60...]

SELECT * FROM `payment` ORDER BY `ARTID` ASC

20	20	2000-12-12	2000-12-19
21	21	2016-01-01	NULL
22	22	2018-12-12	2020-12-10
24	24	1993-03-04	NULL
25	25	1994-04-05	NULL
26	26	1993-07-29	NULL
27	27	1999-08-03	NULL
28	28	1995-09-12	2021-09-12
29	29	1995-09-12	NULL
30	30	1995-09-12	NULL
31	31	1995-09-12	NULL
32	32	1995-09-12	NULL
33	33	1995-09-12	NULL
34	34	1995-09-12	NULL
35	35	1995-09-12	2019-03-03
36	36	1995-09-12	NULL
37	37	1995-09-12	NULL
38	38	1995-09-12	2018-02-02
39	39	1995-09-12	NULL
40	40	2000-12-05	NULL
41	41	2020-07-02	NULL
42	42	2020-07-02	2020-10-10
43	43	2020-07-02	NULL
44	44	2000-09-15	NULL
45	45	2021-06-19	NULL
46	46	2016-08-20	NULL
47	47	2018-06-08	NULL
48	48	2011-07-11	NULL
49	49	2011-07-11	2020-08-09
50	50	2019-07-04	2020-08-09

Shubham M

localhost / 127.0.0.1 / artgalleryp

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+

localhost/phpmyadmin/index.php?route=/sql&db=artgalleryproject&table=payment&pos=0

35	35	1995-09-12	2019-03-03
36	36	1995-09-12	NULL
37	37	1995-09-12	NULL
PID	ARTID	UPFRONTDATE	FINALDATE
39	39	1995-09-12	NULL
40	40	2000-12-05	NULL
41	41	2020-07-02	NULL
42	42	2020-07-02	2020-10-10
43	43	2020-07-02	NULL
44	44	2000-09-15	NULL
45	45	2021-06-19	NULL
46	46	2016-08-20	NULL
47	47	2018-06-08	NULL
48	48	2011-07-11	NULL
49	49	2011-07-11	2020-08-09
50	50	2019-07-04	2020-08-09
51	51	2019-11-12	NULL
52	52	2020-12-12	NULL
53	53	2018-07-16	NULL
54	54	2021-08-09	NULL
55	55	2018-07-06	NULL
56	56	2020-04-07	NULL
57	57	2017-01-09	NULL
58	58	2021-01-08	NULL
59	59	2020-10-25	2021-01-01
60	60	2016-07-07	2018-09-10

Back

Print

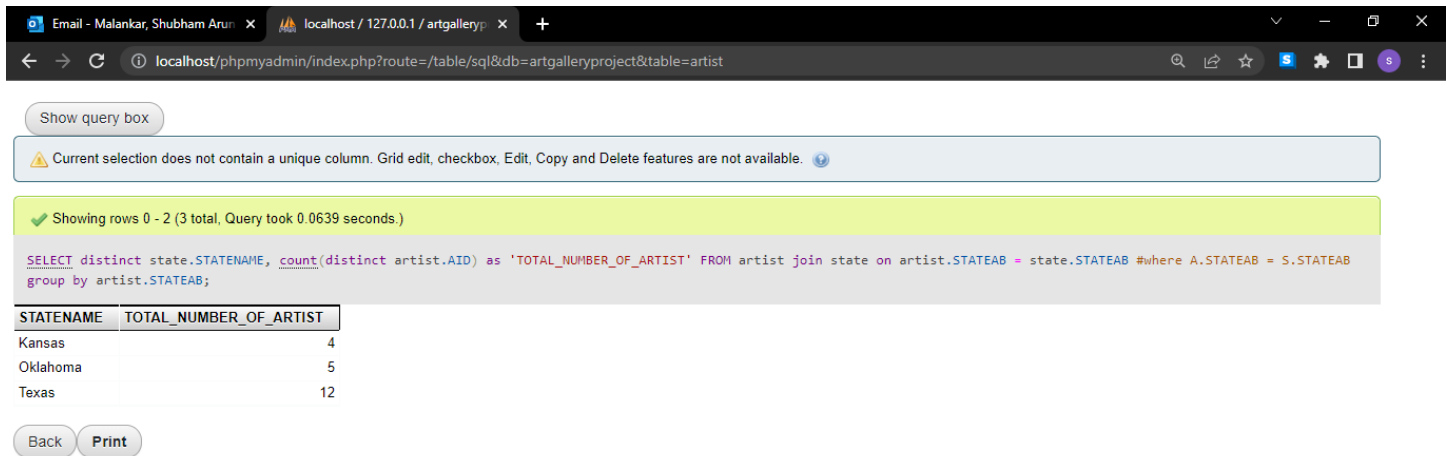
Windows taskbar with icons for File Explorer, Edge, Chrome, and various applications.

6:44 PM
2022-04-02

PART 2 :-

Q1 Retrieve the total number of artists in each state along with the state name (not the state abbreviation).

Ans – SELECT distinct S.STATENAME, count(distinct A.AID) as 'TOTAL_NUMBER_OF_ARTIST' FROM artist JOIN state on artist.STATEAB = state.STATEAB group by A.STATEAB



Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 2 (3 total, Query took 0.0639 seconds.)

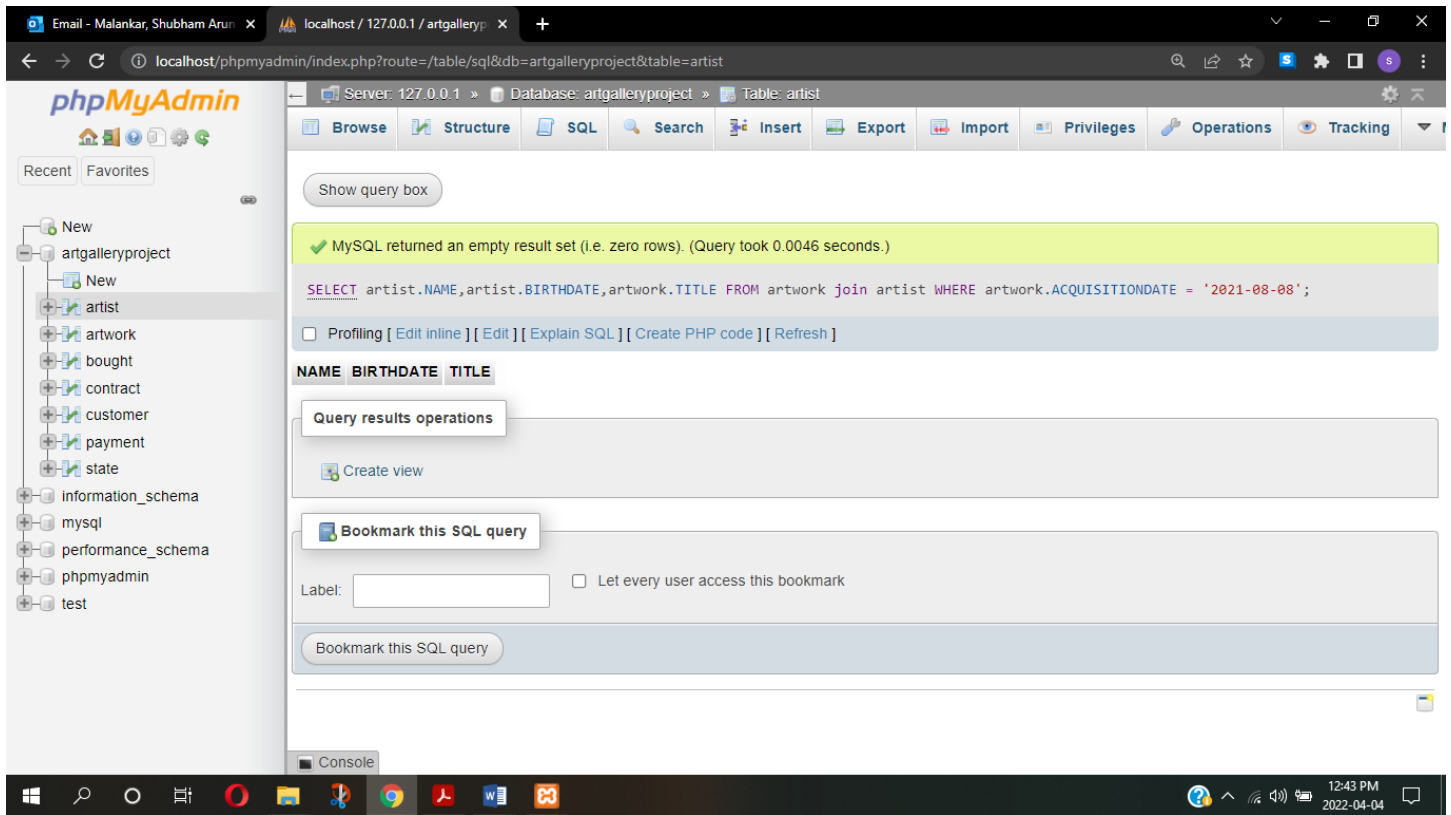
```
SELECT distinct state.STATENAME, count(distinct artist.AID) as 'TOTAL_NUMBER_OF_ARTIST' FROM artist join state on artist.STATEAB = state.STATEAB #where A.STATEAB = S.STATEAB group by artist.STATEAB;
```

STATENAME	TOTAL_NUMBER_OF_ARTIST
Kansas	4
Oklahoma	5
Texas	12

Back Print

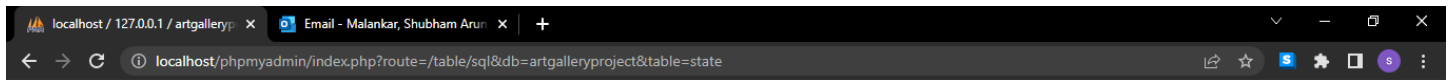
Q2 Retrieve the artist's name, date of birth, and the title of artwork that was sold on August 8, 2021.

Ans – SELECT artist.NAME, artist.BIRTHDATE, artwork.TITLE FROM artwork join artist WHERE artwork.ACQUISITIONDATE = '2021-08-08'



Q3 Retrieve the names and address (Street, City, State Abbreviation, and Zipcode) of all the artists in our database whose first name start with a vowel.

Ans — `SELECT artist.NAME,artist.STREET,artist.CITY,artist.STATEAB,artist.ZIPCODE from artist where artist.NAME like 'A%' or artist.NAME like 'E%' or artist.NAME like 'I%' or artist.NAME like 'O%' or artist.NAME like 'U%' ORDER BY `artist`.`NAME` ASC`



Showing rows 0 - 6 (7 total, Query took 0.0050 seconds.) [NAME: [BLOB - 12 B]... - [BLOB - 9 B]...]

```
SELECT artist.NAME,artist.STREET,artist.CITY,artist.STATEAB,artist.ZIPCODE from artist where artist.NAME like 'A%' or artist.NAME like 'E%' or artist.NAME like 'I%' or artist.NAME like 'O%' or artist.NAME like 'U%' ORDER BY `artist`.`NAME` ASC;
```

NAME	STREET	CITY	STATEAB	ZIPCODE
Abdur Rahman	1000 County Road	Bradley	Ok	73011-0121
Abed Abdi	309 Hcounty Road	Abbott	TX	76621-0057
Albert Bierstadt	400 Spruce Street	Leavenworth	KS	66048-0001
Edward Hopper	1500 255th Street	Hillsdale	KS	66036-0061
Ekene Maduka	15TH Street	Plano	TX	75086-0015
Ismail Gulg	405 E Mesquite Street	Abbott	TX	76621-0057
Olu Amoda	200 Travis Street	Sherman	TX	75090-0005

Back Print



Q4 Retrieve the names of the artists, list of their artwork (title) when the acquisition price is higher than \$20,000 and less than \$40,000. Order the result by the price of the artworks.

Ans – SELECT R.NAME, W.TITLE, W.PRICE from artist R, artwork W where w.PRICE > 20000 and w.PRICE < 40000 and R.AID = W.AID ORDER BY `W`.`PRICE` DESC

localhost/127.0.0.1/artgalleryp x Email - Malankar, Shubham Arun x +

localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 8 (9 total, Query took 0.0146 seconds.) [PRICE: 30000.00... - 21000.00...]

```
SELECT R.NAME, W.TITLE, W.PRICE from artist R, artwork W where w.PRICE > 20000 and w.PRICE < 40000 and R.AID = W.AID ORDER BY `W`.`PRICE` DESC;
```

NAME	TITLE	PRICE
Shakir Ali	Leaves	30000.00
Sunil Das	The Lady	30000.00
Edward Hopper	Night Windows	30000.00
Tatsuo Miyajima	Time Waterfall	29000.00
Edward Hopper	Nighthawks	25000.00
Ismail Gulg	God	22000.00
Edward Hopper	Gas	22000.00
Georgia O'Keeffe	The Black Place	22000.00
Georgia O'Keeffe	Sky Above Clouds	21000.00

Back Print

Windows taskbar: 7:02 PM 2022-04-02

Q5 Retrieve the titles, acquisition price, and the artists names of the 10 least expensive artworks in the gallery.

Ans – SELECT W.TITLE, R.NAME as ARTISTNAME, W.PRICE from artist R, artwork W where R.AID = W.AID ORDER BY `W`.`PRICE` ASC limit 10;

localhost / 127.0.0.1 / artgallery.p ... Email - Malankar, Shubham Arun ...

localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 9 (10 total, Query took 0.0133 seconds.) [PRICE: 190.00... - 200.00...]

```
SELECT W.TITLE, R.NAME as ARTISTNAME, W.PRICE from artist R, artwork W where R.AID = W.AID ORDER BY `W`.`PRICE` ASC limit 10;
```

TITLE	ARTISTNAME	PRICE
Salvador Dali	Kalipada Ghoshal	190.00
Landscape	Manishi Dey	200.00
Mount Hood	Albert Bierstadt	200.00
Buffalo Trail	Albert Bierstadt	200.00
Indian Spear Fishing	Albert Bierstadt	200.00
Sunset in the Rockies	Albert Bierstadt	200.00
Donner Lake	Albert Bierstadt	200.00
Bridal Veil Falls	Albert Bierstadt	200.00
A Rustic Mill	Albert Bierstadt	200.00
Street in Nassau	Albert Bierstadt	200.00

Back Print

7:11 PM 2022-04-02

Q6 Retrieve the artist name, artwork title, and the acquisition price for all artworks of artists who hale from Kansas and has an artwork whose acquisition price is between \$8,000.00 and \$15,000.00. List the result in a descending order by the price of the artwork. The price should be stated with \$, appropriate commas, and up to 2 decimal places. (Example: \$12,000.00)

Ans – SELECT R.NAME, W.TITLE, CONCAT('\$',FORMAT(W.PRICE,2)) as ACQUISITIONPRICE from artist R, artwork W where R.AID = W.AID and R.STATEAB = 'KS' and W.PRICE >= '8000' and W.PRICE <= '15000' ORDER BY `W`.`PRICE` DESC;

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localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=artist

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 3 (4 total, Query took 0.0142 seconds.)

```
SELECT R.NAME, W.TITLE, CONCAT('$',FORMAT(W.PRICE,2)) as ACQUISITIONPRICE from artist R, artwork W where R.AID = W.AID and R.STATEAB = 'KS' and W.PRICE >= '8000' and W.PRICE <= '15000' ORDER BY `W`.`PRICE` DESC limit 11;
```

NAME	TITLE	ACQUISITIONPRICE
Manishi Dey	Musician	\$15,000.00
Edward Hopper	Ground Swell	\$15,000.00
Edward Hopper	Morning Sun	\$12,000.00
Nandalal Bose	Singawala	\$10,000.00

Back Print

Q7 Retrieve a list of state names, artist names from each of the states, and the total number of artworks by each artist to have been listed in the Art Gallery. Order the list by the number of their artworks. Exclude Texas artists from the list.

Ans - SELECT s.STATENAME, R.NAME as ARTISTNAME, COUNT(distinct W.ARTID) as NumberOfArtwork from artist R, artwork W, state S where R.AID = W.AID and S.STATENAME != 'Texas' and S.STATEAB = R.STATEAB group by R.NAME ORDER BY NumberOfArtwork DESC;

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localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 8 (9 total, Query took 0.0212 seconds.)

```
SELECT s.STATENAME, R.NAME AS ARTISTNAME, COUNT(distinct W.ARTID) as NumberOfArtwork from artist R, artwork W, state S where R.AID = W.AID and S.STATENAME != 'Texas' and S.STATEAB = R.STATEAB group by R.NAME ORDER BY NumberOfArtwork DESC;
```

STATENAME	ARTISTNAME	NumberOfArtwork
Kansas	Albert Bierstadt	12
Kansas	Edward Hopper	5
Kansas	Manishi Dey	3
Oklahoma	Abdur Rahman	1
Oklahoma	Kalipada Ghoshal	1
Oklahoma	Li Chen	1
Kansas	Nandalal Bose	1
Oklahoma	Tatsuo Miyajima	1
Oklahoma	Zhan Wang	1

Back Print

Q8 Retrieve, the minimum, maximum, average, and total price of listed artwork of the artists from the state of Kansas. The price should be stated with \$, appropriate commas, and up to 2 decimal places. (Example: \$12,000.00)

Ans - SELECT CONCAT('\$', FORMAT(Min(W.Price),2)) as MINIMUMPRICE ,CONCAT('\$',
FORMAT(Max(W.Price),2)) as MAXIMUMPRICE, CONCAT('\$', FORMAT(AVG(W.Price),2)) as AVERAGEPRICE,
CONCAT('\$', FORMAT(SUM(W.Price),2) as TOTALPRICE from artist R, artwork W, state S where R.AID = W.AID
and S.STATENAME = 'Kansas' and S.STATEAB = R.STATEAB;

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localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=artist

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✓ Showing rows 0 - 0 (1 total, Query took 0.0117 seconds.)

```
SELECT CONCAT('$',FORMAT(Min(W.Price),2)) as MINIMUMPRICE, CONCAT('$',FORMAT(Max(W.Price),2)) as MAXIMUMPRICE, CONCAT('$',FORMAT(AVG(W.Price),2)) as AVERAGEPRICE,
CONCAT('$',FORMAT(SUM(W.Price),2)) as TOTALPRICE from artist R, artwork W, state S where R.AID = W.AID and S.STATENAME = 'Kansas' and S.STATEAB = R.STATEAB;
```

MINIMUMPRICE	MAXIMUMPRICE	AVERAGEPRICE	TOTALPRICE
\$200.00	\$40,000.00	\$9,066.67	\$190,400.00

Back Print

Q9 Retrieve the states, the total number of customers from each state. (Your query will be considered incorrect if it returns the state abbreviation instead of the full state name)

Ans — `SELECT distinct(s.STATENAME), COUNT(C.CID) as TOTALCUSTOMER from customer C, state S where C.STATEAB = S.STATEAB group by S.STATEAB;`



Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 2 (3 total, Query took 0.0135 seconds.)

```
SELECT distinct(s.STATEAB), COUNT(C.CID) as TOTALCUSTOMER from customer C, state S where C.STATEAB = S.STATEAB group by S.STATEAB;
```

STATEAB	TOTALCUSTOMER
Louisiana	4
New Mexico	4
Texas	14

Back Print

Q10 Retrieve the artist name, artwork title and the acquisition price of the most expensive artwork acquired by the gallery so far.

Ans — select A.NAME as ARTISTNAME, R.TITLE, R.PRICE FROM artist A, artwork R WHERE A.AID = R.AID ORDER BY R.PRICE DESC LIMIT 1;

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✓ Showing rows 0 - 0 (1 total, Query took 0.0142 seconds.) [PRICE: 59000.00... - 59000.00...]

```
select A.NAME AS ARTISTNAME, R.TITLE, R.PRICE FROM artist A, artwork R WHERE A.AID = R.AID ORDER BY R.PRICE DESC LIMIT 1;
```

ARTISTNAME	TITLE	PRICE
Modupeola Fadugba	Four Head Bend	59000.00

Back Print

Q11 Retrieve a list of records that each consists of the customer's name, and the title of the artwork they bought, and their price for all the artwork that was bought by only one customer. How will you verify that the results of your query are correct?

Ans – SELECT C.NAME as CUSTOMERNAME, R.TITLE, CONCAT('\$', FORMAT(R.PRICE,2)) as ACQUISITIONDATE FROM (SELECT count(B.ARTID) AS NUMBEROFBUYERS, B.ARTID, B.CID FROM bought B GROUP BY B.ARTID ORDER BY NUMBEROFBUYERS DESC) t1, customer C, artwork R WHERE t1.NUMBEROFBUYERS=1 and C.CID = t1.CID AND t1.ARTID = R.ARTID ORDER BY `C`.`CID` DESC

Showing rows 0 - 11 (12 total, Query took 0.0062 seconds.)

```
SELECT C.NAME as CUSTOMERNAME,R.TITLE, CONCAT('$', FORMAT(R.PRICE,2)) as ACQUISITIONDATE FROM (SELECT count(B.ARTID) AS NUMBEROFBUYERS,B.ARTID,B.CID FROM bought B GROUP BY B.ARTID ORDER BY NUMBEROFBUYERS DESC) t1, customer C, artwork R WHERE t1.NUMBEROFBUYERS=1 and C.CID = t1.CID AND t1.ARTID = R.ARTID ORDER BY `C`.`CID` DESC;
```

CUSTOMERNAME	TITLE	ACQUISITIONDATE
Ana Castillo	Twilight Breeze	\$15,000.00
Helon Habila	Jimson Weed	\$18,000.00
Ben Okri	Leaf Motif	\$350.00
Amitav Ghosh	Morning Sun	\$12,000.00
Anil Desai	The Wolf River	\$200.00
Dia Davidar	Street in Nassau	\$200.00
Wu Ming	Mount Hood	\$200.00
Randy Bradbury	Map	\$19,000.00
Maya Morrison	Blue Horse	\$20,000.00
Tom Twain	Singawala	\$10,000.00
Tahmima Anam	Bird	\$40,000.00
Nadia Hashimi	Palesteanian Women	\$1,700.00

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Verify the result - I have sorted out the records of customer who bought only one painting using the subquery and GROUPED the customers according to it. Further we joined artwork, customer tables.

Q12 Retrieve a list of records that is comprised of the state name, artist name, artform, and the number of pieces sold by the type of artform. Sort the list of records by the State name, artist's name, artform, and the number of pieces sold. How can you verify that your query returns correct answers?

Ans – SELECT artist.NAME as ARTISTNAME,state.STATENAME,artwork.FORM,artwork.ARTID, COUNT(artwork.ARTID) AS NUMBEROFPIECES FROM artwork join bought join artist join state ON artwork.ARTID = bought.ARTID AND artist.AID = artwork.AID AND state.STATEAB = artist.STATEAB GROUP BY artwork.FORM,artwork.ARTID

Showing rows 0 - 15 (16 total, Query took 0.0739 seconds.)

```
SELECT artist.NAME as ARTISTNAME, state.STATENAME, artwork.FORM, artwork.ARTID, COUNT(artwork.ARTID) AS NUMBEROFPIECES FROM artwork join bought join artist join state ON artwork.ARTID = bought.ARTID AND artist.AID = artwork.AID AND state.STATEAB = artist.STATEAB GROUP BY artwork.FORM, artwork.ARTID;
```

ARTISTNAME	STATENAME	FORM	ARTID	NUMBEROFPIECES
Abed Abdi	Texas	painting	1	2
Abed Abdi	Texas	painting	3	1
Nandalal Bose	Kansas	painting	13	1
Jasper Johns	Texas	painting	20	2
Jasper Johns	Texas	painting	22	1
Edward Hopper	Kansas	painting	42	1
Georgia O'Keeffe	Texas	painting	50	1
Li Chen	Oklahoma	painting	59	1
Albert Bierstadt	Kansas	print	28	1
Albert Bierstadt	Kansas	print	35	1
Albert Bierstadt	Kansas	print	38	1
Georgia O'Keeffe	Texas	print	49	1
Shakir Ali	Texas	sculpture	6	1
Manishi Dey	Kansas	sculpture	11	4
Sunil Das	Texas	sculpture	16	1
Zhan Wang	Oklahoma	sculpture	60	2

Explanation – here we follow the reverse approach,

1. We first find the number pieces sold with respect to artform
2. We group them by artid.
3. once we have the artid we can easily find artist name and state name from artist and state tables respectively.

Q13 Retrieve a list of records that each consists of the customer's name, the state that hale from, and the title of the artwork they bought, for all the artwork that was bought by a group of two or more people.

Ans – `SELECT B.ARTID, C.NAME as CUSTOMERNAME, S.STATENAME, R.TITLE from bought B, customer C, artwork R, state S WHERE B.CID = C.CID AND B.ARTID = R.ARTID AND S.STATEAB = C.STATEAB AND B.ARTID IN (SELECT t1.ARTID FROM (SELECT count(B.ARTID) AS NUMBEROFBUYERS, B.ARTID FROM bought B GROUP BY B.ARTID ORDER BY NUMBEROFBUYERS DESC) t1 where t1.NUMBEROFBUYERS > 1);`

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localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 9 (10 total, Query took 0.0066 seconds.)

```
select B.ARTID,C.NAME as CUSTOMERNAME,S.STATENAME, R.TITLE from bought B, customer C, artwork R,state S WHERE B.CID = C.CID AND B.ARTID = R.ARTID AND S.STATEAB = C.STATEAB AND B.ARTID IN (SELECT t1.ARTID FROM (SELECT count(B.ARTID) AS NUMBEROFBUYERS,B.ARTID FROM bought B GROUP BY B.ARTID ORDER BY NUMBEROFBUYERS DESC) t1 where t1.NUMBEROFBUYERS > 1);
```

ARTID	CUSTOMERNAME	STATENAME	TITLE
60	Carlos Fuentes	New Mexico	Mirror Grden
60	Cristina Fuentes	New Mexico	Mirror Grden
1	Mahbod Seraji	Texas	Refugee Camp
1	Shazadi Seraji	Texas	Refugee Camp
11	Elena Lee	Texas	Musician
11	Harper Lee	Texas	Musician
11	Scott Green	Texas	Musician
11	Mary Green	Texas	Musician
20	Jay Steinbeck	Texas	Three Flags
20	Linda Steinbeck	Texas	Three Flags

Back Print

Q14 Execute a command to delete a record that violates a referential integrity constraint. State the message produced by the DBMS.

Ans – DELETE FROM `state` WHERE STATEAB = 'TX'

localhost / 127.0.0.1 / artgalleryp x Email - Malankar, Shubham Arun x Chapter 7

localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

☐ Bind parameters

Bookmark this SQL query:

Delimiter ; ☐ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Simulate query Go

Hide query box

Error

SQL query: Copy

```
DELETE FROM `state` WHERE STATEAB = 'TX';
```

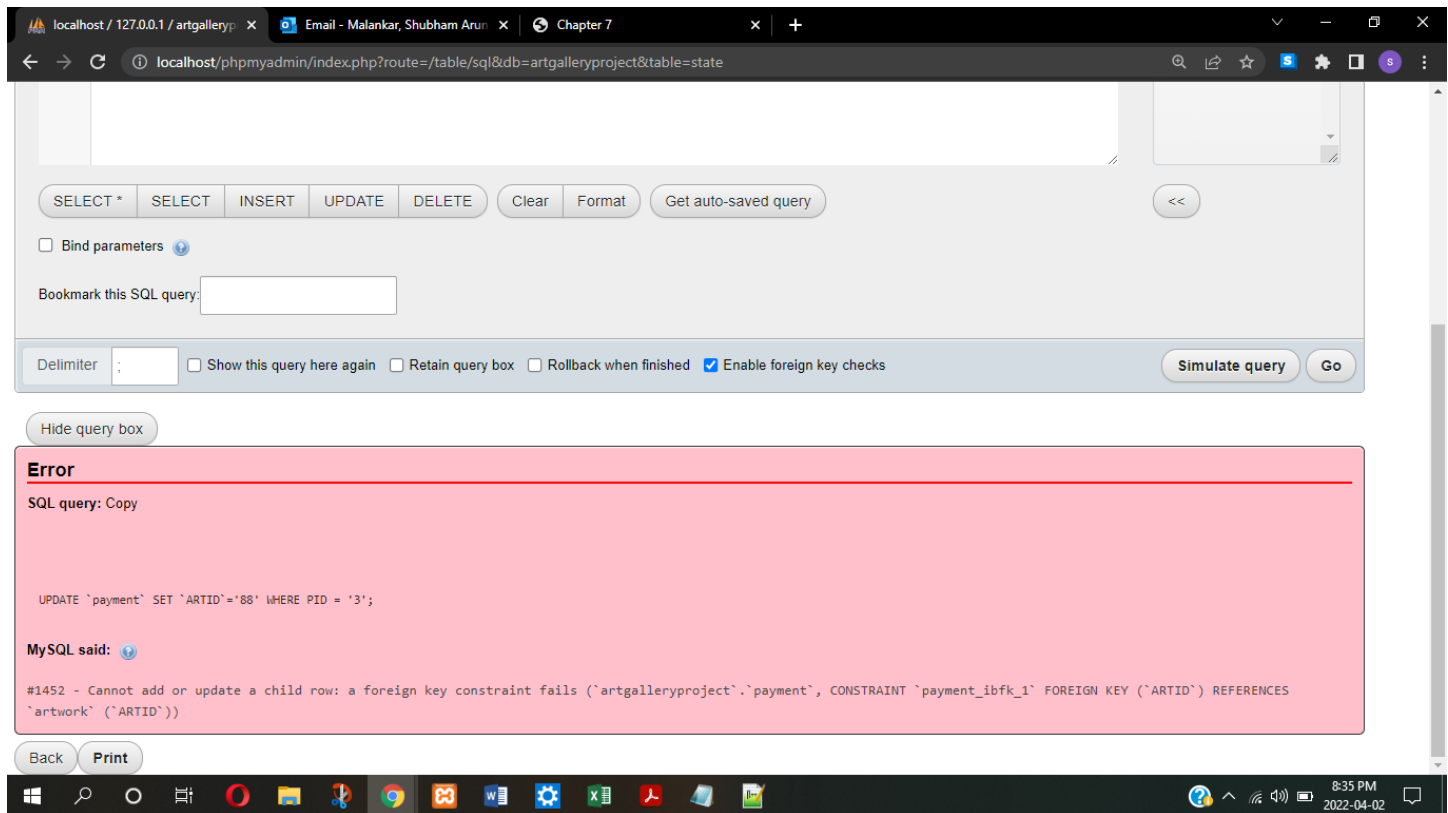
MySQL said:

```
#1451 - Cannot delete or update a parent row: a foreign key constraint fails ('artgalleryproject`.`artist`, CONSTRAINT `artist_ibfk_1` FOREIGN KEY (`STATEAB`) REFERENCES `state` (`STATEAB`))
```

Back Print

Q15 Execute an update command for PAYMENTS table that attempts to update a record and thereby violates the foreign key constraint. State the message produced by the DBMS.

Ans – UPDATE `payment` SET `ARTID`='88' WHERE PID = '3'



Q16 Execute 3 insert commands for artist table that attempt to insert records, such that the records violate the explicit schema-based constraints (Key, Entity Integrity, Referential Integrity constraints). Make each of the 3 records violate a different types of integrity constraint. Include the insert statements and the error messages produced.

Ans - Key integrity violation - INSERT INTO `artist`(` AID`, `NAME`, `BIRTHDATE`, `DEATHDATE`, `COMMISSION`, `STREET`, `CITY`, `STATEAB`, `ZIPCODE`) VALUES ('3','Shubham Malankar','1997-03-12','0000-00-00','20','444 Vasudev street','Arlington','Texas','76013-1454')

The screenshot shows the phpMyAdmin interface with the following details:

- Navigation:** localhost / 127.0.0.1 / artgalleryp, Email - Malankar, Shubham Arun, Chapter 7.
- URL:** localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state
- Query Bar:** SELECT *, SELECT, INSERT, UPDATE, DELETE, Clear, Format, Get auto-saved query.
- Options:** Bind parameters, Bookmark this SQL query, Delimiter: ;, Show this query here again, Retain query box, Rollback when finished, Enable foreign key checks (checked), Go.
- Error Message:**

Error

SQL query: Copy

```
INSERT INTO `artist`(`AID`, `NAME`, `BIRTHDATE`, `DEATHDATE`, `COMMISSION`, `STREET`, `CITY`, `STATEAB`, `ZIPCODE`) VALUES ('3','Shubham Malankar','1997-03-12','0000-00-00','20','444 Vasudev stree
```

MySQL said: #1062 - Duplicate entry '3' for key 'PRIMARY'
- Buttons:** Back, Print.
- Taskbar:** Windows taskbar with various application icons and system clock showing 8:37 PM, 2022-04-02.

Entity integrity violation - INSERT INTO `artist`(`AID`, `NAME`, `BIRTHDATE`, `DEATHDATE`, `COMMISSION`, `STREET`, `CITY`, `STATEAB`, `ZIPCODE`) VALUES (null,'Shubham Malankar','1997-03-12','0000-00-00','20','444 Vasudev street','Arlington','Texas','76013-1454')

The screenshot shows the phpMyAdmin interface with the following details:

- Navigation:** localhost / 127.0.0.1 / artgalleryp, Email - Malankar, Shubham Arun, Chapter 7.
- URL:** localhost/phpmyadmin/index.php?route=/table/sql&db=artgalleryproject&table=state
- Query Bar:** SELECT *, SELECT, INSERT, UPDATE, DELETE, Clear, Format, Get auto-saved query.
- Options:** Bind parameters, Bookmark this SQL query, Delimiter: ;, Show this query here again, Retain query box, Rollback when finished, Enable foreign key checks (checked), Go.
- Error Message:**

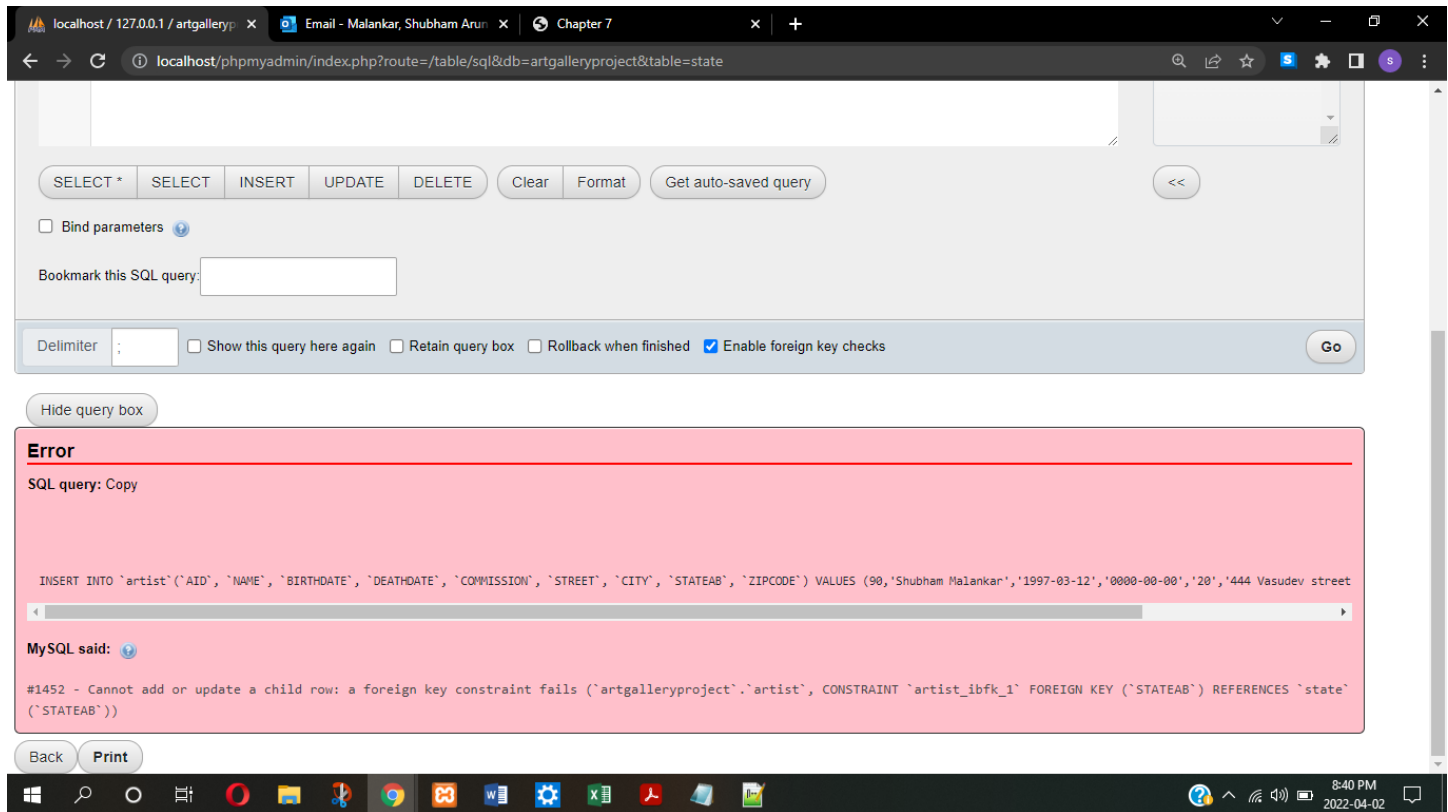
Error

SQL query: Copy

```
INSERT INTO `artist`(`AID`, `NAME`, `BIRTHDATE`, `DEATHDATE`, `COMMISSION`, `STREET`, `CITY`, `STATEAB`, `ZIPCODE`) VALUES (null,'Shubham Malankar','1997-03-12','0000-00-00','20','444 Vasudev stre
```

MySQL said: #1048 - Column 'AID' cannot be null
- Buttons:** Back, Print.
- Taskbar:** Windows taskbar with various application icons and system clock showing 8:37 PM, 2022-04-02.

Referential integrity violation - INSERT INTO `artist`(`AID`,`NAME`,`BIRTHDATE`,`DEATHDATE`,`COMMISSION`,`STREET`,`CITY`,`STATEAB`,`ZIPCODE`) VALUES (90,'Shubham Malankar','1997-03-12','0000-00-00','20','444 Vasudev street','Arlington','OH','76013-1454')



References –

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4. <https://stackoverflow.com/questions/15144393/using-sql-to-compare-counts-of-identifiers-from-two-tables>
5. https://www.w3schools.com/sql/func_mysql_format.asp
6. Fundamentals of Database Systems 7th edition by Elmasri and Navathe