

DATABASE SYSTEMS (5330 – 006)

PROJECT PHASE – II

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Part-1: Database Implementation For Arlington Sprouts Store

CREATE STATEMENTS

```
CREATE DATABASE arlington_sprouts_schema;
USE arlington_sprouts_schema;
```

1)

```
CREATE TABLE STORE (
    sId INT PRIMARY KEY,
    Sname VARCHAR(100) NOT NULL,
    Street VARCHAR(100) NOT NULL,
    City VARCHAR(50) NOT NULL,
    StateAb CHAR(2) NOT NULL,
    ZipCode CHAR(12) NOT NULL,
    Sdate DATE NOT NULL,
    Telno VARCHAR(20) NOT NULL,
    URL VARCHAR(500) NOT NULL
);
```

The screenshot shows a database interface with the following details:

- Query Result:** Shows a single row (0-0) with the message "Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)".
- SQL Statement:** The query "SELECT * FROM STORE" is displayed.
- Table Headers:** The table has columns: sId, Sname, Street, City, StateAb, ZipCode, Sdate, Telno, URL.
- Data Row:** One row is shown: sId=1, Sname="Arlington Sprouts-1", Street="1 Cooper Street", City="Arlington", StateAb="TX", ZipCode="76019-0012", Sdate="2023-01-10", Telno="8172721111", URL="www.ArlingtonSprouts-1.com".
- Action Buttons:** Options include Edit, Copy, Delete, and Export.
- Table Tools:** Includes "Show all", "Number of rows: 25", and a search bar.
- Other:** A "Profiling [Edit in..." button is visible.

2)

```
CREATE TABLE VENDOR (
    vld INT PRIMARY KEY,
    Vname VARCHAR(100) NOT NULL,
    Street VARCHAR(100) NOT NULL,
    City VARCHAR(50) NOT NULL,
    StateAb CHAR(2) NOT NULL,
    Zipcode CHAR(12) NOT NULL
);
```

Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)

```
SELECT * FROM VENDOR
```

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

+ Options

	vld	Vname	Street	City	StateAb	Zipcode
<input type="checkbox"/>	1	Organic Nature	1500 E Exchange Road	Allen	TX	75002-4504
<input type="checkbox"/>	2	Green Valley	1405 Julian Street	Addison	TX	75001-4633
<input type="checkbox"/>	3	Green Mountains	800 Preston Road	Gunter	TX	75058-0001
<input type="checkbox"/>	4	Whole Foods	1010 Spicewood Drive	Garland	TX	75044-2569
<input type="checkbox"/>	5	LA Queen	500 Angi Road	Minden	LA	71055-1004
<input type="checkbox"/>	6	Castor Sprouts	100 New Ramah Road	Castor	LA	71016-2402

Check all With selected:

3)

```
CREATE TABLE VENDOR_STORE (
    vld INT,
    sld INT,
    PRIMARY KEY (vld, sld),
    FOREIGN KEY (vld) REFERENCES VENDOR(vld) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (sld) REFERENCES STORE(sld) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)

```
SELECT * FROM VENDOR_STORE
```

Show all | Number of rows: Filter rows: Sort by key:

+ Options

	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	vld	sld
1	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	1	1
2	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	2	1
3	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	3	1
4	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	4	1
5	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	5	1
6	<input type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Copy"/>	<input type="button" value="Delete"/>	6	1

Check all With selected:

4)

```
CREATE TABLE CONTRACT (
    vId INT,
    ctId INT,
    Sdate DATE NOT NULL,
    Ctime TIME NOT NULL,
    Cname VARCHAR(100) NOT NULL,
    FOREIGN KEY (vId) REFERENCES VENDOR(vId) ON UPDATE CASCADE ON DELETE RESTRICT,
    PRIMARY KEY (vId, ctId)
);
```

✓ Showing rows 0 - 11 (12 total, Query took 0.0001 seconds.)

```
SELECT * FROM CONTRACT
```

Show all

Number of rows: 25

Filter rows:

Search this table

Sc

+ Options

	vId	ctId	Sdate	Ctime	Cname
<input type="checkbox"/>  Edit  Copy  Delete	2	1	2024-06-24	13:00:00	Sprout Buddies
<input type="checkbox"/>  Edit  Copy  Delete	2	2	2024-07-01	13:00:00	Sprout Buddies
<input type="checkbox"/>  Edit  Copy  Delete	2	3	2024-07-07	13:00:00	Sprout Buddies
<input type="checkbox"/>  Edit  Copy  Delete	2	4	2024-07-14	14:00:00	Sprout Sandwiches
<input type="checkbox"/>  Edit  Copy  Delete	3	1	2024-06-25	15:00:00	Sprout Greens
<input type="checkbox"/>  Edit  Copy  Delete	4	1	2024-06-25	16:00:00	Sprout Certifications
<input type="checkbox"/>  Edit  Copy  Delete	4	2	2024-06-26	16:00:00	Sprout Certifications
<input type="checkbox"/>  Edit  Copy  Delete	5	1	2024-07-26	13:00:00	Sprout Certifications
<input type="checkbox"/>  Edit  Copy  Delete	5	2	2024-07-26	14:00:00	Sprout Buddies
<input type="checkbox"/>  Edit  Copy  Delete	5	3	2024-07-26	15:00:00	Sprout Sandwiches
<input type="checkbox"/>  Edit  Copy  Delete	5	4	2024-07-26	16:00:00	Sprout Sandwiches
<input type="checkbox"/>  Edit  Copy  Delete	5	5	2024-07-26	17:00:00	Microgreens



Check all

With selected:

 Edit

 Copy

 Delete

 Export

5)

```
CREATE TABLE ITEM (
    id INT PRIMARY KEY,
    Iname VARCHAR(100) NOT NULL,
    Sprice DECIMAL(10, 2) NOT NULL
);
```

Showing rows 0 - 13 (14 total, Query took 0.0001 seconds.)

```
SELECT * FROM ITEM
```

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

+ Options

	id	Iname	Sprice
<input type="checkbox"/>	1	Broccoli Sprouts	3.00
<input type="checkbox"/>	2	Kale Sprouts	3.00
<input type="checkbox"/>	3	Alfalfa Sprouts	3.00
<input type="checkbox"/>	4	Mung Sprouts	4.00
<input type="checkbox"/>	5	Chickpeas Sprouts	4.00
<input type="checkbox"/>	6	Onion Sprouts	4.00
<input type="checkbox"/>	7	Soyabean Sprouts	5.00
<input type="checkbox"/>	8	Clover Sprouts	3.00
<input type="checkbox"/>	9	Kidney Beans Sprouts	4.00
<input type="checkbox"/>	10	Adzuki Bean Sprouts	4.00
<input type="checkbox"/>	11	Beet Sprouts	5.00
<input type="checkbox"/>	12	Green Pea Sprouts	5.00
<input type="checkbox"/>	13	Radish Sprouts	6.00
<input type="checkbox"/>	14	Lentil Sprouts	4.00

Check all | With selected: Edit Copy Delete | Export

6)

```
CREATE TABLE VENDOR_ITEM (
    vId INT,
    iId INT,
    Vprice DECIMAL(10, 2) NOT NULL,
    PRIMARY KEY (vId, iId),
    FOREIGN KEY (vId) REFERENCES VENDOR(vId) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (iId) REFERENCES ITEM(iId) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 23 (24 total, Query took 0.0002 seconds.)

```
SELECT * FROM VENDOR_ITEM
```

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

+ Options

	vId	iId	Vprice
<input type="checkbox"/>	1	1	2.00
<input type="checkbox"/>	1	2	2.00
<input type="checkbox"/>	1	3	1.00
<input type="checkbox"/>	1	14	1.00
<input type="checkbox"/>	2	4	3.00
<input type="checkbox"/>	2	5	2.00
<input type="checkbox"/>	2	6	2.00
<input type="checkbox"/>	2	13	4.00
<input type="checkbox"/>	3	7	3.00
<input type="checkbox"/>	3	8	2.00
<input type="checkbox"/>	3	9	2.00
<input type="checkbox"/>	3	10	2.00
<input type="checkbox"/>	4	11	3.00
<input type="checkbox"/>	4	12	3.00
<input type="checkbox"/>	4	13	2.00
<input type="checkbox"/>	4	14	2.00

7)

```
CREATE TABLE OLDPRICE (
    id INT,
    Sprice DECIMAL(10, 2) NOT NULL,
    Sdate DATE NOT NULL,
    Edate DATE ,
    PRIMARY KEY (id, Sdate),
    FOREIGN KEY (id) REFERENCES ITEM(id) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 17 (18 total, Query took 0.0002 seconds.)

```
SELECT * FROM OLDPRICE
```

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

+ Options

	← T →	id	Sprice	Sdate	Edate
<input type="checkbox"/>	Edit Copy Delete	1	3.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	2	3.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	3	1.00	2023-01-20	2023-01-25
<input type="checkbox"/>	Edit Copy Delete	3	2.00	2023-01-26	2023-01-28
<input type="checkbox"/>	Edit Copy Delete	3	3.00	2023-01-29	NULL
<input type="checkbox"/>	Edit Copy Delete	4	4.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	5	4.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	6	4.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	7	5.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	8	3.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	9	4.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	10	4.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	11	5.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	12	5.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	13	6.00	2023-01-20	NULL
<input type="checkbox"/>	Edit Copy Delete	14	2.00	2023-01-20	2023-01-27
<input type="checkbox"/>	Edit Copy Delete	14	3.00	2023-01-28	2023-01-30
<input type="checkbox"/>	Edit Copy Delete	14	4.00	2023-01-31	2023-02-10

Check all With selected: Edit Copy Delete

8)

```
CREATE TABLE CUSTOMER (
    cld INT PRIMARY KEY,
    Cname VARCHAR(60) NOT NULL,
    Street VARCHAR(100) NOT NULL,
    City VARCHAR(50) NOT NULL,
    StateAb CHAR(2) NOT NULL,
    Zipcode CHAR(12) NOT NULL
);
```

Showing rows 0 - 20 (21 total, Query took 0.0002 seconds.)

```
SELECT * FROM CUSTOMER
```

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None ▾

+ Options

	← T →	▼	cld	Cname	Street	City	StateAb	Zipcode
<input type="checkbox"/>				1	Abed Abdi	309 Hounty Road	Abbott	TX 76621-0057
<input type="checkbox"/>				2	Ismail Gulg	405 E Mesquite Street	Abbott	TX 76621-0057
<input type="checkbox"/>				3	Shakir Ali	5000 Spectrum Street	Addison	TX 75001-6880
<input type="checkbox"/>				4	Abdur Rahman	1000 County Road	Bradley	OK 73011-0121
<input type="checkbox"/>				5	Kalipada Ghoshal	Boundary Road	Bradley	OK 73011-9600
<input type="checkbox"/>				6	Manishi Dey	450 Main Street	Mound City	KS 66056-0001
<input type="checkbox"/>				7	Nandalal Bose	S Metcalf Road	Louisburg	KS 66053-0541
<input type="checkbox"/>				8	Raja Ravi Varma	2000 Forest Grove blvd	Allen	TX 75002-8811
<input type="checkbox"/>				9	Sunil Das	4000 Woodcreek Road	Carrollton	TX 75006-1911
<input type="checkbox"/>				10	Jasper Johns	2500 Sunset Ridge Drive	Rockwall	TX 75032-0006
<input type="checkbox"/>				11	Winslow Homer	11300 Juniper Lane	Irving	TX 75039-0101
<input type="checkbox"/>				12	Albert Bierstadt	400 Spruce Street	Leavenworth	KS 66048-0001
<input type="checkbox"/>				13	Edward Hopper	1500 255th Street	Hillsdale	KS 66036-0061
<input type="checkbox"/>				14	Georgia O'Keeffe	3000 Weiss Lane	Irving	TX 75039-0006
<input type="checkbox"/>				15	Modupeola Fadugba	1112 18TH Street	Plano	TX 75086-0019
<input type="checkbox"/>				16	Ekene Maduka	15TH Street	Plano	TX 75086-0015
<input type="checkbox"/>				17	Olu Amoda	200 Travis Street	Sherman	TX 75090-0005
<input type="checkbox"/>				18	Koki Tanaka	5000 W Holiday Road	Fate	TX 75087-2136
<input type="checkbox"/>				19	Tatsuo Miyajima	Bella Ranch Drive	Choctaw	OK 73020-0017
<input type="checkbox"/>				20	Li Chen	2090 County Road	Cement	OK 73017-1100
<input type="checkbox"/>				21	Zhan Wang	1600 N Santa Fe	Edmond	OK 73003-3661

9)

```
CREATE TABLE ORDERS (
    old INT PRIMARY KEY,
    sId INT,
    Odate DATE NOT NULL,
    Ddate DATE NOT NULL,
    Amount DECIMAL(10, 2) NOT NULL,
    cId INT NOT NULL,
    FOREIGN KEY (sId) REFERENCES STORE(sId) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (cId) REFERENCES CUSTOMER(cId) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 24 (27 total, Query took 0.0002 seconds.)

```
SELECT * FROM ORDERS
```

1 > >> | Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	old	sId	Odate	Ddate	Amount	cId	
<input type="checkbox"/>	Edit Copy Delete	1	1	2023-01-20	2023-01-21	3.00	1
<input type="checkbox"/>	Edit Copy Delete	2	1	2023-01-20	2023-01-21	3.00	2
<input type="checkbox"/>	Edit Copy Delete	3	1	2023-01-20	2023-01-21	4.00	3
<input type="checkbox"/>	Edit Copy Delete	4	1	2023-01-20	2023-01-21	12.00	4
<input type="checkbox"/>	Edit Copy Delete	5	1	2023-01-20	2023-01-21	4.00	5
<input type="checkbox"/>	Edit Copy Delete	6	1	2023-01-20	2023-01-21	27.00	6
<input type="checkbox"/>	Edit Copy Delete	7	1	2023-01-20	2023-01-21	4.00	7
<input type="checkbox"/>	Edit Copy Delete	8	1	2023-01-20	2023-01-21	5.00	8
<input type="checkbox"/>	Edit Copy Delete	9	1	2023-01-20	2023-01-21	5.00	9
<input type="checkbox"/>	Edit Copy Delete	10	1	2023-01-20	2023-01-21	5.00	10
<input type="checkbox"/>	Edit Copy Delete	11	1	2023-01-20	2023-01-21	3.00	11
<input type="checkbox"/>	Edit Copy Delete	12	1	2023-01-25	2023-01-26	4.00	12
<input type="checkbox"/>	Edit Copy Delete	13	1	2023-01-25	2023-01-26	4.00	13
<input type="checkbox"/>	Edit Copy Delete	14	1	2023-01-25	2023-01-26	4.00	14
<input type="checkbox"/>	Edit Copy Delete	15	1	2023-01-25	2023-01-26	22.00	2
<input type="checkbox"/>	Edit Copy Delete	16	1	2023-01-25	2023-01-26	5.00	5
<input type="checkbox"/>	Edit Copy Delete	17	1	2023-01-25	2023-01-26	6.00	9
<input type="checkbox"/>	Edit Copy Delete	18	1	2023-01-30	2023-01-31	6.00	15
<input type="checkbox"/>	Edit Copy Delete	19	1	2023-01-30	2023-01-31	3.00	16
<input type="checkbox"/>	Edit Copy Delete	20	1	2023-01-30	2023-01-31	3.00	17
<input type="checkbox"/>	Edit Copy Delete	21	1	2023-01-30	2023-01-31	4.00	2
<input type="checkbox"/>	Edit Copy Delete	22	1	2023-01-30	2023-01-31	4.00	9
<input type="checkbox"/>	Edit Copy Delete	23	1	2023-02-05	2023-02-06	4.00	18
<input type="checkbox"/>	Edit Copy Delete	24	1	2023-02-05	2023-02-06	4.00	19
<input type="checkbox"/>	Edit Copy Delete	25	1	2023-02-05	2023-02-06	4.00	20

10)

```
CREATE TABLE ORDER_ITEM (
    old INT,
    sld INT,
    ild INT,
    lcount INT NOT NULL,
    PRIMARY KEY (old, ild),
    FOREIGN KEY (old) REFERENCES ORDERS(old) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (sld) REFERENCES STORE(sld) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (ild) REFERENCES ITEM(ild) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 24 (33 total, Query took 0.0002 seconds.)

```
SELECT * FROM ORDER_ITEM
```

1 < > >> | Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	old	sld	ild	lcount
<input type="checkbox"/>	1	1	1	1
<input type="checkbox"/>	2	1	2	1
<input type="checkbox"/>	3	1	4	1
<input type="checkbox"/>	4	1	5	1
<input type="checkbox"/>	4	1	6	2
<input type="checkbox"/>	5	1	5	1
<input type="checkbox"/>	6	1	5	1
<input type="checkbox"/>	6	1	6	2
<input type="checkbox"/>	6	1	7	3
<input type="checkbox"/>	7	1	6	1
<input type="checkbox"/>	8	1	7	1
<input type="checkbox"/>	9	1	7	1
<input type="checkbox"/>	10	1	7	1
<input type="checkbox"/>	11	1	8	1
<input type="checkbox"/>	12	1	9	1
<input type="checkbox"/>	13	1	10	1
<input type="checkbox"/>	14	1	10	1
<input type="checkbox"/>	15	1	4	1
<input type="checkbox"/>	15	1	5	1
<input type="checkbox"/>	15	1	6	1
<input type="checkbox"/>	15	1	7	2
<input type="checkbox"/>	16	1	12	1
<input type="checkbox"/>	17	1	13	1
<input type="checkbox"/>	18	1	13	1
<input type="checkbox"/>	19	1	1	1

11)

```
CREATE TABLE STORE_ITEM (
    sld INT,
    ild INT,
    Scount INT NOT NULL,
    PRIMARY KEY (sld, ild),
    FOREIGN KEY (sld) REFERENCES STORE(sld) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (ild) REFERENCES ITEM(ild) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 13 (14 total, Query took 0.0002 seconds.)

```
SELECT * FROM STORE_ITEM
```

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

+ Options

		sld	ild	Scount
<input type="checkbox"/>	Edit Copy Delete	1	1	10
<input type="checkbox"/>	Edit Copy Delete	1	2	10
<input type="checkbox"/>	Edit Copy Delete	1	3	10
<input type="checkbox"/>	Edit Copy Delete	1	4	10
<input type="checkbox"/>	Edit Copy Delete	1	5	10
<input type="checkbox"/>	Edit Copy Delete	1	6	10
<input type="checkbox"/>	Edit Copy Delete	1	7	10
<input type="checkbox"/>	Edit Copy Delete	1	8	10
<input type="checkbox"/>	Edit Copy Delete	1	9	10
<input type="checkbox"/>	Edit Copy Delete	1	10	12
<input type="checkbox"/>	Edit Copy Delete	1	11	13
<input type="checkbox"/>	Edit Copy Delete	1	12	10
<input type="checkbox"/>	Edit Copy Delete	1	13	16
<input type="checkbox"/>	Edit Copy Delete	1	14	15

Check all With selected: Edit Copy Delete Export

12)

```
CREATE TABLE STORE_CUSTOMER (
    sld INT,
    cld INT,
    PRIMARY KEY (sld, cld),
    FOREIGN KEY (sld) REFERENCES STORE(sld) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (cld) REFERENCES CUSTOMER(cld) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 20 (21 total, Query took 0.0002 seconds.)

```
SELECT * FROM STORE_CUSTOMER
```

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

+ Options

	sld	cld
<input type="checkbox"/>	1	1
<input type="checkbox"/>	1	2
<input type="checkbox"/>	1	3
<input type="checkbox"/>	1	4
<input type="checkbox"/>	1	5
<input type="checkbox"/>	1	6
<input type="checkbox"/>	1	7
<input type="checkbox"/>	1	8
<input type="checkbox"/>	1	9
<input type="checkbox"/>	1	10
<input type="checkbox"/>	1	11
<input type="checkbox"/>	1	12
<input type="checkbox"/>	1	13
<input type="checkbox"/>	1	14
<input type="checkbox"/>	1	15
<input type="checkbox"/>	1	16
<input type="checkbox"/>	1	17
<input type="checkbox"/>	1	18
<input type="checkbox"/>	1	19
<input type="checkbox"/>	1	20
<input type="checkbox"/>	1	21

Check all With selected:

13)

```
CREATE TABLE EMPLOYEE (
    sId INT NOT NULL,
    SSN INT PRIMARY KEY,
    Ename VARCHAR(50) NOT NULL,
    Etype VARCHAR(1) NOT NULL,
    Bdate DATE NOT NULL,
    Edate DATE,
    Sdate DATE NOT NULL,
    Level VARCHAR(20),
    Asalary DECIMAL(10, 2),
    Agency VARCHAR(100),
    Hsalary DECIMAL(10, 2),
    Institute VARCHAR(100),
    Itype VARCHAR(50),
    Street VARCHAR(100) NOT NULL,
    City VARCHAR(50) NOT NULL,
    StateAb CHAR(2) NOT NULL,
    Zipcode CHAR(12) NOT NULL,
    FOREIGN KEY (sId) REFERENCES STORE(sId) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)

SELECT * FROM EMPLOYEE

Profile

	sId	SSN	Ename	Etype	Bdate	Edate	Sdate	Level	Asalary	Agency	Hsalary	Institute	Itype	Street	City	StateAb	Zipcode		
<input type="checkbox"/>	Edit	Copy	Delete	1	123456666	Olampliosi Pi	T	2005-02-01	NULL	2023-01-20	NULL	NULL	Top Performers	10.00	NULL	NULL	100 Varsity Circle	Arlington TX	76019-1111
<input type="checkbox"/>	Edit	Copy	Delete	1	123456777	Radha Gupta	T	2005-01-20	NULL	2023-01-20	NULL	NULL	AR Manpower	10.00	NULL	NULL	200 Nedderman Dr.	Arlington TX	76019-1111
<input type="checkbox"/>	Edit	Copy	Delete	1	123456780	Cao Peng	I	2008-01-20	NULL	2023-01-20	NULL	NULL	NULL	NULL	UTA	U	12 W. Mitchell St.	Arlington TX	76019-1111
<input type="checkbox"/>	Edit	Copy	Delete	1	123456781	Giun Seong	I	2007-01-01	NULL	2023-01-20	NULL	NULL	NULL	NULL	Arlington High School	S	12 S. Pecan St.	Arlington TX	76019-1111
<input type="checkbox"/>	Edit	Copy	Delete	1	123456788	Christian Cart	F	2001-01-02	NULL	2023-01-20	Associate 1	25000.00	NULL	NULL	NULL	NULL	20 Main Street	Arlington TX	76019-1111
<input type="checkbox"/>	Edit	Copy	Delete	1	123456789	Mary Durer	F	2000-01-20	NULL	2023-01-20	Associate 2	30000.00	NULL	NULL	NULL	NULL	11 Cooper Street	Arlington TX	76019-1111

Check all With selected: Edit Copy Delete Export

Part-2: Query & Results For Arlington Sprouts Store

Question 1)

```
SELECT cname, street, city, stateab, zipcode  
FROM CUSTOMER  
WHERE cname LIKE '% J%'  
    OR cname LIKE '% M%'
```

Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

```
SELECT cname, street, city, stateab, zipcode FROM CUSTOMER WHERE cname LIKE '% J%' OR cname LIKE '% M%'
```

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

+ Options

	cname	street	city	stateab	zipcode
<input type="checkbox"/>	Jasper Johns	2500 Sunset Ridge Drive	Rockwall	TX	75032-0006
<input type="checkbox"/>	Ekene Maduka	15TH Street	Plano	TX	75086-0015
<input type="checkbox"/>	Tatsuo Miyajima	Bella Ranch Drive	Choctaw	OK	73020-0017

Check all With selected:

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

Query results operations

Question 2)

SELECT

```
v.vname AS 'Vendor Name',
c cname AS 'Course Name',
c.sdate AS 'Course Date',
TIME_FORMAT(c.ctime, "%h:%i %p") AS 'Course Time'
```

FROM

VENDOR AS v

JOIN CONTRACT AS c

ON

c.vid = v.vid

WHERE

c.ctime > "14:00:00"

ORDER BY

c.ctime

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
1 SELECT
2     v.vname AS 'Vendor Name',
3     c cname AS 'Course Name',
4     c.sdate AS 'Course Date',
5     TIME_FORMAT(c.ctime, "%h:%i %p") AS 'Course Time'
6 FROM
```

Enable foreign key checks

Go **Cancel**

Show all | Number of rows: **All** Filter rows: **Search this table** Sort by key: **None**

+ Options

Vendor Name	Course Name	Course Date	Course Time
Green Mountains	Sprout Greens	2024-06-25	03:00 PM
LA Queen	Sprout Sandwiches	2024-07-26	03:00 PM
Whole Foods	Sprout Certifications	2024-06-25	04:00 PM
Whole Foods	Sprout Certifications	2024-06-26	04:00 PM
LA Queen	Sprout Sandwiches	2024-07-26	04:00 PM
LA Queen	Microgreens	2024-07-26	05:00 PM

Question 3)

```
SELECT
    v.vname,
    ITEM.iname,
    CONCAT('$', FORMAT(vi.vprice, 2)) AS 'Vendor Price',
    CONCAT('$', FORMAT(ITEM.sprice, 2)) AS 'Store Price'
FROM
    VENDOR_ITEM AS vi
INNER JOIN VENDOR AS v
ON
    v.vid = vi.vid
INNER JOIN ITEM ON ITEM.iid = vi.iid
```

Showing rows 0 - 23 (24 total, Query took 0.0004 seconds.)

```
SELECT v.vname, ITEM.iname, CONCAT('$', FORMAT(vi.vprice, 2)) AS 'Vendor Price',
v.vid = vi.vid INNER JOIN ITEM ON ITEM.iid = vi.iid
```

Show all | Number of rows: 25 Filter rows:

+ Options

vname	iname	Vendor Price	Store Price
Organic Nature	Broccoli Sprouts	\$2.00	\$3.00
Organic Nature	Kale Sprouts	\$2.00	\$3.00
Organic Nature	Alfalfa Sprouts	\$1.00	\$3.00
Organic Nature	Lentil Sprouts	\$1.00	\$4.00
Green Valley	Mung Sprouts	\$3.00	\$4.00
Green Valley	Chickpeas Sprouts	\$2.00	\$4.00
Green Valley	Onion Sprouts	\$2.00	\$4.00
Green Valley	Radish Sprouts	\$4.00	\$6.00
Green Mountains	Soyabean Sprouts	\$3.00	\$5.00
Green Mountains	Clover Sprouts	\$2.00	\$3.00
Green Mountains	Kidney Beans Sprouts	\$2.00	\$4.00
Green Mountains	Adzuki Bean Sprouts	\$2.00	\$4.00
Whole Foods	Beet Sprouts	\$3.00	\$5.00
Whole Foods	Green Pea Sprouts	\$3.00	\$5.00
Whole Foods	Radish Sprouts	\$2.00	\$6.00
Whole Foods	Lentil Sprouts	\$2.00	\$4.00
LA Queen	Soyabean Sprouts	\$3.00	\$5.00
LA Queen	Beet Sprouts	\$2.00	\$5.00
LA Queen	Radish Sprouts	\$5.00	\$6.00
LA Queen	Lentil Sprouts	\$3.00	\$4.00
Castor Sprouts	Soyabean Sprouts	\$2.00	\$5.00
Castor Sprouts	Clover Sprouts	\$1.00	\$3.00
Castor Sprouts	Kidney Beans Sprouts	\$3.00	\$4.00
Castor Sprouts	Adzuki Bean Sprouts	\$4.00	\$4.00

Question 4)

```
SELECT ITEM.INAME AS 'Item Name',
       CONCAT('$', FORMAT(ITEM.SPRICE, 2)) AS 'Store Price'
  FROM ITEM
 ORDER BY ITEM.SPRICE DESC,
          ITEM.INAME ASC
 LIMIT 10
```

Show query box

Showing rows 0 - 9 (10 total, Query took 0.0003 seconds.)

```
SELECT ITEM.INAME AS 'Item Name', CONCAT('$', FORMAT(ITEM.SPRICE, 2)) AS 'Store Price'
```

+ Options

	Item Name	Store Price
<input type="checkbox"/>	Edit Copy Delete Radish Sprouts	\$6.00
<input type="checkbox"/>	Edit Copy Delete Beet Sprouts	\$5.00
<input type="checkbox"/>	Edit Copy Delete Green Pea Sprouts	\$5.00
<input type="checkbox"/>	Edit Copy Delete Soyabean Sprouts	\$5.00
<input type="checkbox"/>	Edit Copy Delete Adzuki Bean Sprouts	\$4.00
<input type="checkbox"/>	Edit Copy Delete Chickpeas Sprouts	\$4.00
<input type="checkbox"/>	Edit Copy Delete Kidney Beans Sprouts	\$4.00
<input type="checkbox"/>	Edit Copy Delete Lentil Sprouts	\$4.00
<input type="checkbox"/>	Edit Copy Delete Mung Sprouts	\$4.00
<input type="checkbox"/>	Edit Copy Delete Onion Sprouts	\$4.00

Check all With selected: Edit Copy Delete Export

Question 5)

```
SELECT VENDOR.VNAME,
       ITEM.INAME,
       CONCAT('$', FORMAT(VI.VPRICE, 2)) AS 'Vendor Price',
       CONCAT('$', FORMAT(ITEM.SPRICE, 2)) AS 'Item Price'
  FROM VENDOR_ITEM AS VI
 INNER JOIN ITEM ON ITEM.IID = VI.IID
 INNER JOIN VENDOR ON VENDOR.VID = VI.VID
 WHERE ITEM.SPRICE > 2 * VI.VPRICE;
```

✓ Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT VENDOR.VNAME, ITEM.INAME, CONCAT('$', FORMAT(VI.VPRICE, 2)) AS
ITEM.IID = VI.IID INNER JOIN VENDOR ON VENDOR.VID = VI.VID WHERE ITEM
```

Show all

| Number of rows:

25 ▾

Filter rows:

Search this

+ Options

VNAME	INAME	Vendor Price	Item Price
Organic Nature	Alfalfa Sprouts	\$1.00	\$3.00
Organic Nature	Lentil Sprouts	\$1.00	\$4.00
Whole Foods	Radish Sprouts	\$2.00	\$6.00
LA Queen	Beet Sprouts	\$2.00	\$5.00
Castor Sprouts	Soyabean Sprouts	\$2.00	\$5.00
Castor Sprouts	Clover Sprouts	\$1.00	\$3.00

Question 6)

```
SELECT VENDOR.VNAME,
       ITEM.INAME,
       CONCAT('$', FORMAT(VI.VPRICE, 2)) AS 'Vendor Price',
       CONCAT('$', FORMAT(ITEM.SPRICE, 2)) AS 'Item Price'
  FROM VENDOR_ITEM AS VI
 INNER JOIN ITEM ON ITEM.IID = VI.IID
 INNER JOIN VENDOR ON VENDOR.VID = VI.VID
 WHERE ABS(ITEM.SPRICE - VI.VPRICE) = 2
 ORDER BY VENDOR.VNAME;
```

✓ Showing rows 0 - 11 (12 total, Query took 0.0004 seconds.) [VNAME:]

```
SELECT VENDOR.VNAME, ITEM.INAME, CONCAT('$', FORMAT(VI.VPRICE, 2)) AS 'Vendor Price', CONCAT('$', FORMAT(ITEM.SPRICE, 2)) AS 'Item Price'
  FROM VENDOR_ITEM AS VI
 INNER JOIN ITEM ON ITEM.IID = VI.IID
 INNER JOIN VENDOR ON VENDOR.VID = VI.VID
 WHERE ABS(ITEM.SPRICE - VI.VPRICE) = 2
 ORDER BY VENDOR.VNAME;
```

Show all

Number of rows:

25 ▾

Filter rows:

Search t

+ Options

VNAME	INAME	Vendor Price	Item Price
Castor Sprouts	Clover Sprouts	\$1.00	\$3.00
Green Mountains	Soyabean Sprouts	\$3.00	\$5.00
Green Mountains	Kidney Beans Sprouts	\$2.00	\$4.00
Green Mountains	Adzuki Bean Sprouts	\$2.00	\$4.00
Green Valley	Chickpeas Sprouts	\$2.00	\$4.00
Green Valley	Onion Sprouts	\$2.00	\$4.00
Green Valley	Radish Sprouts	\$4.00	\$6.00
LA Queen	Soyabean Sprouts	\$3.00	\$5.00
Organic Nature	Alfalfa Sprouts	\$1.00	\$3.00
Whole Foods	Beet Sprouts	\$3.00	\$5.00
Whole Foods	Green Pea Sprouts	\$3.00	\$5.00
Whole Foods	Lentil Sprouts	\$2.00	\$4.00

Question 7)

```
SELECT ORDERS.ODATE AS 'Order Date',
       CUSTOMER.CNAME AS 'Customer Name',
       CONCAT('$', FORMAT(ORDERS.AMOUNT, 2)) AS 'Amount',
       N.ITEM_COUNT AS 'Items Ordered'
  FROM ORDERS
 INNER JOIN CUSTOMER ON CUSTOMER.CID = ORDERS.CID
 INNER JOIN
   (SELECT OI.OID,
          COUNT(*) AS ITEM_COUNT
     FROM ORDER_ITEM AS OI GROUP BY OI.OID) AS N ON N.OID = ORDERS.OID
 ORDER BY ORDERS.ODATE ASC,
          CUSTOMER.CNAME ASC;
```

✓ Showing rows 0 - 26 (27 total, Query took 0.0005 seconds.)

```
SELECT ORDERS.ODATE AS 'Order Date', CUSTOMER.CNAME AS 'Customer Name',
       ORDERS.CID INNER JOIN (SELECT OI.OID, COUNT(*) AS ITEM_COUNT FROM ORDER_ITEM AS OI GROUP BY OI.OID) AS N ON N.OID = ORDERS.OID
 ORDER BY ORDERS.ODATE ASC,
```

Show all | Number of rows: 50 Filter rows:

+ Options

Order Date	Customer Name	Amount	Items Ordered
2023-01-20	Abdur Rahman	\$12.00	2
2023-01-20	Abed Abdi	\$3.00	1
2023-01-20	Ismail Gulg	\$3.00	1
2023-01-20	Jasper Johns	\$5.00	1
2023-01-20	Kalipada Ghoshal	\$4.00	1
2023-01-20	Manishi Dey	\$27.00	3
2023-01-20	Nandalal Bose	\$4.00	1
2023-01-20	Raja Ravi Varma	\$5.00	1
2023-01-20	Shakir Ali	\$4.00	1
2023-01-20	Sunil Das	\$5.00	1
2023-01-20	Winslow Homer	\$3.00	1
2023-01-25	Albert Bierstadt	\$4.00	1
2023-01-25	Edward Hopper	\$4.00	1
2023-01-25	Georgia O'Keeffe	\$4.00	1
2023-01-25	Ismail Gulg	\$22.00	4
2023-01-25	Kalipada Ghoshal	\$5.00	1
2023-01-25	Sunil Das	\$6.00	1
2023-01-30	Ekene Maduka	\$3.00	1
2023-01-30	Ismail Gulg	\$4.00	1
2023-01-30	Modupeola Fadugba	\$6.00	1
2023-01-30	Olu Amoda	\$3.00	1
2023-01-30	Sunil Das	\$4.00	1
2023-02-05	Koki Tanaka	\$4.00	1
2023-02-05	Li Chen	\$4.00	1
2023-02-05	Tatsuo Miyajima	\$4.00	1
2023-02-10	Zhan Wang	\$4.00	1
2023-02-12	Zhan Wang	\$4.00	1

Question 8)

```
SELECT ODATE AS 'Order Date',
       CONCAT('$', FORMAT(SUM(AMOUNT), 2)) AS 'Sum AMT',
       CONCAT('$', FORMAT(AVG(AMOUNT), 2)) AS 'Avg AMT',
       CONCAT('$', FORMAT(MAX(AMOUNT), 2)) AS 'Max AMT'
  FROM ORDERS GROUP BY ODATE;
```

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT ODATE AS 'Order Date', CONCAT('$', FORMAT(SUM(AMOUNT), 2)) AS 'Sum AMT', CONCAT('$', FORMAT(AVG(AMOUNT), 2)) AS 'Avg AMT', CONCAT('$', FORMAT(MAX(AMOUNT), 2)) AS 'Max AMT'
  FROM ORDERS GROUP BY ODATE
```

Show all

Number of rows: 25

Filter rows:

Search this table

Sort by

+ Options

		Order Date	Sum AMT	Avg AMT	Max AMT
<input type="checkbox"/>	 Edit  Copy  Delete	2023-01-20	\$75.00	\$6.82	\$27.00
<input type="checkbox"/>	 Edit  Copy  Delete	2023-01-25	\$45.00	\$7.50	\$22.00
<input type="checkbox"/>	 Edit  Copy  Delete	2023-01-30	\$20.00	\$4.00	\$6.00
<input type="checkbox"/>	 Edit  Copy  Delete	2023-02-05	\$12.00	\$4.00	\$4.00
<input type="checkbox"/>	 Edit  Copy  Delete	2023-02-10	\$4.00	\$4.00	\$4.00
<input type="checkbox"/>	 Edit  Copy  Delete	2023-02-12	\$4.00	\$4.00	\$4.00



Check all

With selected:

 Edit

 Copy

 Delete

 Export

Question 9)

```
SELECT O.ODEATE AS "Order Date",
       C.CNAME AS "Customer Name",
       CONCAT('$', FORMAT(O.AMOUNT, 2)) AS "Amount"
  FROM ORDERS O
 INNER JOIN CUSTOMER C ON O.CID = C.CID
 WHERE O.AMOUNT =
   (SELECT MIN(AMOUNT)
      FROM ORDERS
     WHERE CID = O.CID)
 OR O.AMOUNT =
   (SELECT MAX(AMOUNT)
      FROM ORDERS
     WHERE CID = O.CID)
 ORDER BY O.AMOUNT;
```

✓ Showing rows 0 - 24 (25 total, Query took 0.0010 seconds.)

```
SELECT O.ODEATE AS "Order Date", C.CNAME AS "Customer Name", CON
WHERE CID = O.CID) OR O.AMOUNT = (SELECT MAX(AMOUNT) FROM ORDER
```

Show all | Number of rows: 50 ▾ Filter rows:

+ Options

Order Date	Customer Name	Amount
2023-01-20	Abed Abdi	\$3.00
2023-01-20	Ismail Gulg	\$3.00
2023-01-20	Winslow Homer	\$3.00
2023-01-30	Ekene Maduka	\$3.00
2023-01-30	Olu Amoda	\$3.00
2023-02-05	Koki Tanaka	\$4.00
2023-02-05	Tatsuo Miyajima	\$4.00
2023-01-30	Sunil Das	\$4.00
2023-02-05	Li Chen	\$4.00
2023-02-10	Zhan Wang	\$4.00
2023-02-12	Zhan Wang	\$4.00
2023-01-20	Shakir Ali	\$4.00
2023-01-25	Albert Bierstadt	\$4.00
2023-01-25	Edward Hopper	\$4.00
2023-01-20	Kalipada Ghoshal	\$4.00
2023-01-25	Georgia O'Keeffe	\$4.00
2023-01-20	Nandalal Bose	\$4.00
2023-01-20	Jasper Johns	\$5.00
2023-01-25	Kalipada Ghoshal	\$5.00
2023-01-20	Raja Ravi Varma	\$5.00
2023-01-25	Sunil Das	\$6.00
2023-01-30	Modupeola Fadugba	\$6.00
2023-01-20	Abdur Rahman	\$12.00
2023-01-25	Ismail Gulg	\$22.00
2023-01-20	Manishi Dey	\$27.00

Question 10)

```
SELECT MIN_O.ODATE AS "MinOrder Date",
       MIN_O.CNAME AS "MinCustomer Name", CONCAT('$', FORMAT(MIN_O.AMOUNT, 2)) AS
MINAMOUNT,      MAX_O.ODATE AS "MaxOrder Date",      MAX_O.CNAME AS
"MaxCustomer Name",      CONCAT('$', FORMAT(MAX_O.AMOUNT, 2)) AS MAXAMOUNT
FROM (SELECT C.CNAME,      O.ODATE,      O.AMOUNT
      FROM CUSTOMER C  JOIN ORDERS O ON C.CID = O.CID  WHERE O.AMOUNT =
(SELECT MIN(O2.AMOUNT)      FROM ORDERS O2)  ORDER BY C.CNAME
      LIMIT 1) AS MIN_O CROSS JOIN (SELECT C.CNAME,      O.ODATE,      O.AMOUNT
      FROM CUSTOMER C  JOIN ORDERS O ON C.CID = O.CID  WHERE O.AMOUNT =
(SELECT MAX(O2.AMOUNT)      FROM ORDERS O2)  ORDER BY C.CNAME  LIMIT 1) AS
MAX_O;
```

Showing rows 0 - 0 (1 total, Query took 0.0008 seconds.)

```
SELECT MIN_O.ODATE AS "MinOrder Date", MIN_O.CNAME AS "MinCustomer Name", CONCAT('$', FORMAT(MIN_O.AMOUNT, 2)) AS
"MaxCustomer Name", CONCAT('$', FORMAT(MAX_O.AMOUNT, 2)) AS MAXAMOUNT FROM (SELECT C.CNAME, O.ODATE, O.AMOUNT FROM (
MIN(O2.AMOUNT) FROM ORDERS O2) ORDER BY C.CNAME LIMIT 1) AS MIN_O CROSS JOIN (SELECT C.CNAME, O.ODATE, O.AMOUNT FROM
(SELECT MAX(O2.AMOUNT) FROM ORDERS O2) ORDER BY C.CNAME LIMIT 1) AS MAX_O
```

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

+ Options

MinOrder Date	MinCustomer Name	MINAMOUNT	MaxOrder Date	MaxCustomer Name	MAXAMOUNT
2023-01-20	Abed Abdi	\$3.00	2023-01-20	Manishi Dey	\$27.00

Question 11)

Version 1- Using with (not supported by phpmyadmin)

WITH subquery as (

```
    SELECT MIN(amount) AS min_amt, MAX(amount) AS max_amt, SUM(amount) AS total_amt,
    COUNT(*) AS num_orders, odate
    FROM orders
    GROUP BY odate
)
```

```
SELECT Orders.odate as OrderDate, CONCAT("MIN:",count(*)) as "# orders",
CONCAT("$",FORMAT(sum(min_amt),2)) as Amount
FROM subquery
```

```
JOIN orders ON subquery.odate = orders.odate AND subquery.min_amt = orders.amount where
subquery.num_orders>1 group by Orders.odate
union
```

```
SELECT Orders.odate as "Order Date", CONCAT("MAX:",count(*)) as "# orders",
CONCAT("$",FORMAT(sum(max_amt),2)) as Amount
FROM subquery
```

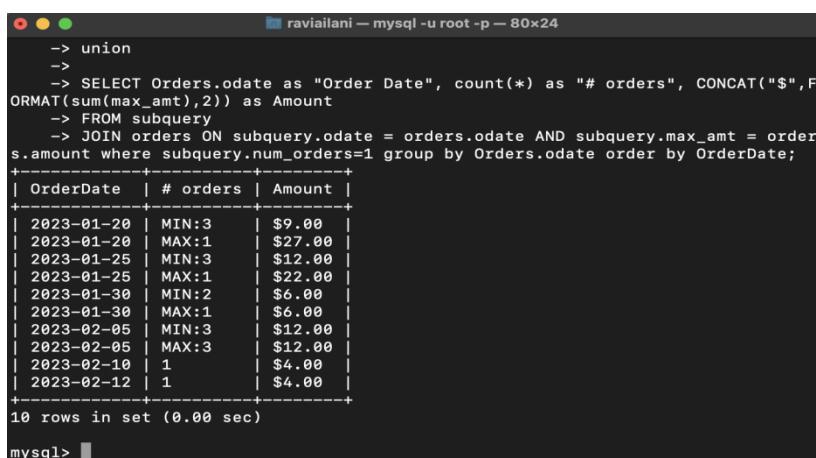
```
JOIN orders ON subquery.odate = orders.odate AND subquery.max_amt = orders.amount where
subquery.num_orders>1 group by Orders.odate
```

union

```
SELECT Orders.odate as "Order Date", count(*) as "# orders",
CONCAT("$",FORMAT(sum(max_amt),2)) as Amount
```

FROM subquery

```
JOIN orders ON subquery.odate = orders.odate AND subquery.max_amt = orders.amount where
subquery.num_orders=1 group by Orders.odate order by OrderDate;
```



The screenshot shows a terminal window titled 'ravialani — mysql -u root -p — 80x24'. The command history at the top includes several parts of the query, starting with 'union' and ending with 'order by OrderDate;'. Below the history is a table output with three columns: 'OrderDate', '# orders', and 'Amount'. The data consists of 10 rows, each representing a date and its corresponding statistics. The last row shows '10 rows in set (0.00 sec)'.

OrderDate	# orders	Amount
2023-01-20	MIN:3	\$9.00
2023-01-20	MAX:1	\$27.00
2023-01-25	MIN:3	\$12.00
2023-01-25	MAX:1	\$22.00
2023-01-30	MIN:2	\$6.00
2023-01-30	MAX:1	\$6.00
2023-02-05	MIN:3	\$12.00
2023-02-05	MAX:3	\$12.00
2023-02-10	1	\$4.00
2023-02-12	1	\$4.00

Version-2

```
SELECT ORDERS.ODATE AS ORDERDATE,
       CONCAT("MIN:", COUNT(*)) AS "# orders",
       CONCAT("$", FORMAT(SUM(MIN_AMT),
2)) AS AMOUNT
FROM
(SELECT MIN(AMOUNT) AS MIN_AMT,
       MAX(AMOUNT) AS MAX_AMT,
       SUM(AMOUNT) AS TOTAL_AMT,
       COUNT(*) AS NUM_ORDERS,
       ODATE
FROM ORDERS
GROUP BY ODATE) SUBQUERY
JOIN ORDERS ON SUBQUERY.ODATE = ORDERS.ODATE
AND SUBQUERY.MIN_AMT = ORDERS.AMOUNT
WHERE SUBQUERY.NUM_ORDERS>1
GROUP BY ORDERS.ODATE
UNION
SELECT ORDERS.ODATE AS "Order Date",
       CONCAT("MAX:", COUNT(*)) AS "# orders",
       CONCAT("$", FORMAT(SUM(MAX_AMT), 2)) AS AMOUNT
FROM
(SELECT MIN(AMOUNT) AS MIN_AMT,
       MAX(AMOUNT) AS MAX_AMT,
       SUM(AMOUNT) AS TOTAL_AMT,
       COUNT(*) AS NUM_ORDERS,
       ODATE
FROM ORDERS
GROUP BY ODATE) SUBQUERY
JOIN ORDERS ON SUBQUERY.ODATE = ORDERS.ODATE
AND SUBQUERY.MAX_AMT = ORDERS.AMOUNT
WHERE SUBQUERY.NUM_ORDERS>1
GROUP BY ORDERS.ODATE
UNION
SELECT ORDERS.ODATE AS "Order Date",
       COUNT(*) AS "# orders",
       CONCAT("$", FORMAT(SUM(MAX_AMT), 2)) AS AMOUNT
FROM
(SELECT MIN(AMOUNT) AS MIN_AMT,
       MAX(AMOUNT) AS MAX_AMT,
       SUM(AMOUNT) AS TOTAL_AMT,
       COUNT(*) AS NUM_ORDERS,
       ODATE
FROM ORDERS
GROUP BY ODATE) SUBQUERY
JOIN ORDERS ON SUBQUERY.ODATE = ORDERS.ODATE
AND SUBQUERY.MAX_AMT = ORDERS.AMOUNT
WHERE SUBQUERY.NUM_ORDERS=1
GROUP BY ORDERS.ODATE
ORDER BY ORDERDATE;
```

 Showing rows 0 - 9 (10 total, Query took 0.0009 seconds.)

```
SELECT ORDERS.ODATE AS ORDERDATE, CONCAT("MIN:", COUNT(*)) AS "# orders", CONCAT("$", FORMAT(SUM(MIN_AMT), 2)) AS AMOUNT FROM
(SELECT MIN(AMOUNT) AS MIN_AMT, MAX(AMOUNT) AS MAX_AMT, SUM(AMOUNT) AS TOTAL_AMT, COUNT(*) AS NUM_ORDERS, ODATE FROM ORDERS
GROUP BY ODATE) SUBQUERY JOIN ORDERS ON SUBQUERY.ODATE = ORDERS.ODATE AND SUBQUERY.MIN_AMT = ORDERS.AMOUNT WHERE
SUBQUERY.NUM_ORDERS>1 GROUP BY ORDERS.ODATE UNION SELECT ORDERS.ODATE AS "order Date", CONCAT("MAX:", COUNT(*)) AS "# orders",
CONCAT("$", FORMAT(SUM(MAX_AMT), 2)) AS AMOUNT FROM (SELECT MIN(AMOUNT) AS MIN_AMT, MAX(AMOUNT) AS MAX_AMT,
SUM(AMOUNT) AS TOTAL_AMT, COUNT(*) AS NUM_ORDERS, ODATE FROM ORDERS GROUP BY ODATE) SUBQUERY JOIN ORDERS ON SUBQUERY.ODATE =
ORDERS.ODATE AND SUBQUERY.MAX_AMT = ORDERS.AMOUNT WHERE SUBQUERY.NUM_ORDERS>1 GROUP BY ORDERS.ODATE UNION SELECT
ORDERS.O[...]
```

Profiling [Edit] [Refresh]

Show all | Number of rows: 25 ▾

Filter rows: Search this table

+ Options

ORDERDATE	# orders	AMOUNT
2023-01-20	MAX:1	\$27.00
2023-01-20	MIN:3	\$9.00
2023-01-25	MIN:3	\$12.00
2023-01-25	MAX:1	\$22.00
2023-01-30	MIN:2	\$6.00
2023-01-30	MAX:1	\$6.00
2023-02-05	MAX:3	\$12.00
2023-02-05	MIN:3	\$12.00
2023-02-10	1	\$4.00
2023-02-12	1	\$4.00

Question 12)

```
SELECT CUSTOMER.CNAME,
       CONCAT('$', FORMAT(SUM(AMOUNT), 2)) AS 'Total Amount'
  FROM ORDERS
 INNER JOIN CUSTOMER ON CUSTOMER.CID = ORDERS.CID GROUP BY CUSTOMER.CID
 ORDER BY SUM(AMOUNT) ASC;
```

✓ Showing rows 0 - 20 (21 total, Query took 0.0004 seconds.)

```
SELECT CUSTOMER.CNAME, CONCAT(' $ ', FORMAT(SUM(AMOUNT), 2)) AS '
```

Show all

Number of rows:

25 ▾

Filter rows:

See

+ Options

CNAME	Total Amount
Olu Amoda	\$3.00
Abed Abdi	\$3.00
Winslow Homer	\$3.00
Ekene Maduka	\$3.00
Georgia O'Keeffe	\$4.00
Tatsuo Miyajima	\$4.00
Nandalal Bose	\$4.00
Albert Bierstadt	\$4.00
Li Chen	\$4.00
Shakir Ali	\$4.00
Edward Hopper	\$4.00
Koki Tanaka	\$4.00
Jasper Johns	\$5.00
Raja Ravi Varma	\$5.00
Modupeola Fadugba	\$6.00
Zhan Wang	\$8.00
Kalipada Ghoshal	\$9.00
Abdur Rahman	\$12.00
Sunil Das	\$15.00
Manishi Dey	\$27.00
Ismail Gulg	\$29.00

Question 13)

```
SELECT CUSTOMER.CNAME,
       SUM(TI) AS 'Total Boxes',
       CONCAT('$', FORMAT(SUM(AMOUNT), 2)) AS 'Total Amount'
  FROM ORDERS
 INNER JOIN
  (SELECT SUM(ICOUNT) AS TI,
         OID
    FROM ORDER_ITEM GROUP BY OID) B ON B.OID = ORDERS.OID
 INNER JOIN CUSTOMER ON CUSTOMER.CID = ORDERS.CID GROUP BY CUSTOMER.CID
 ORDER BY SUM(TI) ASC, SUM(AMOUNT) ASC;
```

✓ Showing rows 0 - 20 (21 total, Query took 0.0005 seconds.)

```
SELECT CUSTOMER.CNAME, SUM(TI) AS 'Total Boxes', CONCAT('$', FC
ORDERS.OID INNER JOIN CUSTOMER ON CUSTOMER.CID = ORDERS.CID GRO
```

Show all | Number of rows: 25 ▾ Filter rows:

+ Options

CNAME	Total Boxes	Total Amount
Abed Abdi	1	\$3.00
Winslow Homer	1	\$3.00
Olu Amoda	1	\$3.00
Ekene Maduka	1	\$3.00
Shakir Ali	1	\$4.00
Nandalal Bose	1	\$4.00
Edward Hopper	1	\$4.00
Tatsuo Miyajima	1	\$4.00
Albert Bierstadt	1	\$4.00
Georgia O'Keeffe	1	\$4.00
Koki Tanaka	1	\$4.00
Li Chen	1	\$4.00
Raja Ravi Varma	1	\$5.00
Jasper Johns	1	\$5.00
Modupeola Fadugba	1	\$6.00
Zhan Wang	2	\$8.00
Kalipada Ghoshal	2	\$9.00
Abdur Rahman	3	\$12.00
Sunil Das	3	\$15.00
Manishi Dey	6	\$27.00
Ismail Gulg	7	\$29.00

Question 14)

DELETE from VENDOR WHERE vid = 1;

```
1 DELETE from VENDOR WHERE vid = 1;
```

Bind parameters

[Delimiter] Show this query here again Retain query box Rollback when finished Enable foreign key checks

Error

SQL query:

```
DELETE from VENDOR WHERE vid = 1
```

MySQL said:

```
#1451 - Cannot delete or update a parent row: a foreign key constraint fails (`arlington_sprouts_schema`.`VENDOR_ITEM`,  
CONSTRAINT `VENDOR_ITEM_ibfk_1` FOREIGN KEY (`vId`) REFERENCES `VENDOR` (`vId`) ON UPDATE CASCADE)
```

Question 15)

a) Violating Primary Key constraint in the VENDOR table:

```
INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (1,'Fake vendor','1500 E Exchange Road','Allen','TX','75002-4504');
```

The screenshot shows a MySQL query editor interface. The query input field contains:

```
1 INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (1,'Fake vendor','1500 E Exchange Road','Allen','TX','75002-4504');
```

Below the input field are several buttons: Clear, Format, Get auto-saved query, Bind parameters, and a Delimiter selector. To the right of the input field are checkboxes for Show this query here again, Retain query box, Rollback when finished, and Enable foreign key checks. A "Go" button is located at the bottom right of the input area.

The screenshot shows an error message box titled "Error".

SQL query:

```
INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (1,'Fake vendor','1500 E Exchange Road','Allen','TX','75002-4504');
```

MySQL said: #1062 - Duplicate entry '1' for key 'PRIMARY'

b) Violation of Entity Integrity constraint in the VENDOR table:

```
INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (7,'Organic  
Nature','1500 E Exchange Road','Allen','ABC','75002-4504');
```

The screenshot shows a MySQL query editor interface. The query entered is:

```
1 INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (7,'Organic Nature','1500 E Exchange  
Road','Allen','ABC','75002-4504');
```

Below the query are several configuration buttons:

- Clear**
- Format**
- Get auto-saved query**

Checkboxes at the bottom include:

- Bind parameters
- [Delimiter] Show this query here again Retain query box Rollback when finished Enable foreign key checks

A **Go** button is located on the right side of the toolbar.

Error

SQL query:

```
INSERT INTO VENDOR(vId,Vname,Street,City,StateAb,ZipCode) VALUES (7,'Organic Nature','1500 E Exchange Road','Allen','ABC','7
```

MySQL said:

```
#1406 - Data too long for column 'StateAb' at row 1
```

C) Violation of Referential Integrity constraint in the ORDERS table:

```
INSERT INTO ORDERS(oId,sId,cId,Odate,Ddate,Amount) VALUES (100,100,1,'2023-01-20','2023-01-21',3);
```

The screenshot shows a MySQL query editor interface. At the top, there is a code editor containing the SQL query: `INSERT INTO ORDERS(oId,sId,cId,Odate,Ddate,Amount) VALUES (100,100,1,'2023-01-20','2023-01-21',3);`. Below the code editor are several buttons: **Clear**, **Format**, and **Get auto-saved query**. There is also a checkbox for **Bind parameters** with a help icon. Further down are settings for **Delimiter** (set to ;), **Show this query here again** (checked), **Retain query box** (unchecked), **Rollback when finished** (unchecked), and **Enable foreign key checks** (checked). A **Go** button is located to the right of these settings.

Error

SQL query:

```
INSERT INTO ORDERS(oId,sId,cId,Odate,Ddate,Amount) VALUES (100,100,1,'2023-01-20','2023-01-21',3)
```

MySQL said:

```
#1452 - Cannot add or update a child row: a foreign key constraint fails (`arlington_sprouts_schema`.`ORDERS`, CONSTRAINT `ORDERS_ibfk_1` FOREIGN KEY (`sId`) REFERENCES `STORE` (`sId`) ON UPDATE CASCADE)
```

Question 16)

UPDATE ORDERS SET cid = 1020 WHERE cld = 1;

The screenshot shows a MySQL query editor interface. In the main text area, there is a single line of SQL code:

```
1 UPDATE ORDERS
2 SET cid = 1020
3 WHERE cId = 1;
```

Below the text area are several buttons: "Clear", "Format", "Get auto-saved query", "Bind parameters", "[Delimiter]", "Show this query here again" (checked), "Retain query box", "Rollback when finished", "Enable foreign key checks", "Simulate query", and "Go".

Error

SQL query:

```
UPDATE ORDERS
SET cid = 1020
WHERE cId = 1
```

MySQL said:

```
#1452 - Cannot add or update a child row: a foreign key constraint fails (`arlington_sprouts_schema`.`ORDERS`, CONSTRAINT
`fk_2` FOREIGN KEY (`cid`) REFERENCES `CUSTOMER` (`cId`) ON UPDATE CASCADE)
Console
```

HONOR CODE

I pledge, on my honor to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest efforts in the 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 Honor Code.

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

Sutth

Lamitilane

03/30/2023

03/30/2023