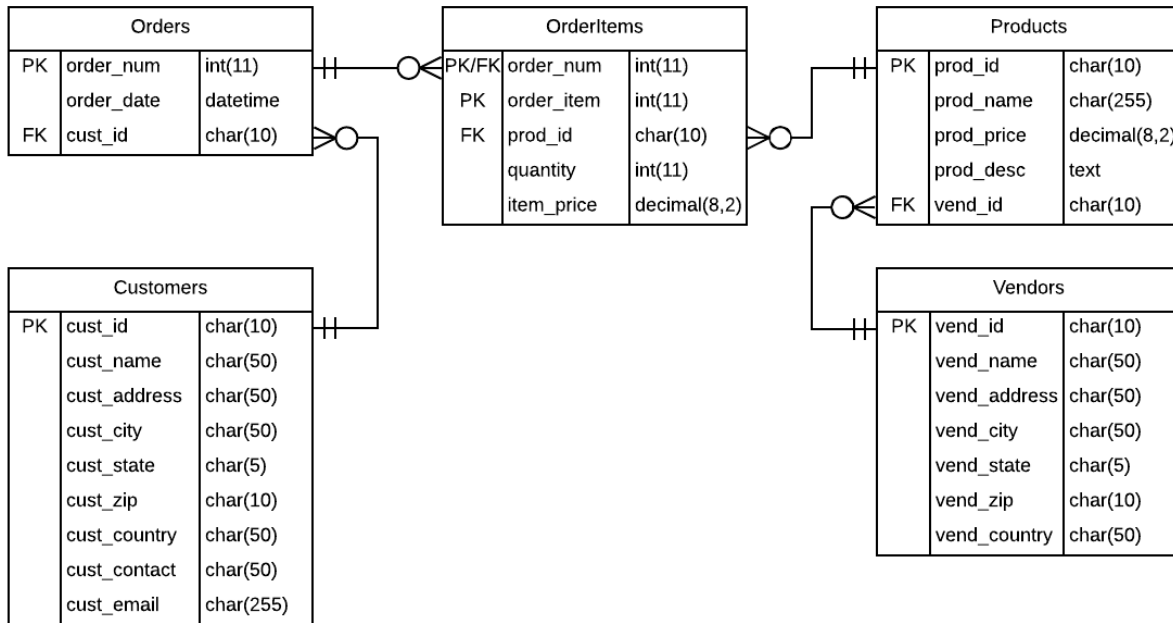## ISQS 3348 – Database Management Systems
Individual Assignment-5 – Subqueries, Joines, Inserting, Updating, and Deleting Data

Write the SQL queries that answer the questions below (and on the reverse) using the following diagram (i.e., the Sams Textbook database):

Orders		
PK	order_num	int(11)
	order_date	datetime
FK	cust_id	char(10)

OrderItems		
PK/FK	order_num	int(11)
PK	order_item	int(11)
FK	prod_id	char(10)
	quantity	int(11)
	item_price	decimal(8,2)

Products		
PK	prod_id	char(10)
	prod_name	char(255)
	prod_price	decimal(8,2)
	prod_desc	text
FK	vend_id	char(10)

Customers		
PK	cust_id	char(10)
	cust_name	char(50)
	cust_address	char(50)
	cust_city	char(50)
	cust_state	char(5)
	cust_zip	char(10)
	cust_country	char(50)
	cust_contact	char(50)
	cust_email	char(255)

Vendors		
PK	vend_id	char(10)
	vend_name	char(50)
	vend_address	char(50)
	vend_city	char(50)
	vend_state	char(5)
	vend_zip	char(10)
	vend_country	char(50)

1. What is the name of the vendor who makes the *Fish bean bag toy*? Show your answer using both the subquery method and the join method (i.e., write two separate queries).

```
3       #1
4  •    SELECT vend_name
5       FROM Vendors
6       WHERE vend_id = (
7           SELECT vend_id
8           FROM Products
9           WHERE prod_name = 'Fish bean bag toy'
10      );
11
```

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

vend_name
Doll House Inc.

```
11
12      # Option 2
13
14 ●    SELECT V.vend_name
15      FROM Vendors V
16      JOIN Products P ON V.vend_id = P.vend_id
17      WHERE P.prod_name = 'Fish bean bag toy';
18
19      #2
```

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

vend_name
▶ Doll House Inc.

2. What is the average product price for each vendor?

```
19      #2
20 ●    SELECT V.vend_name, AVG(P.prod_price) as average_price
21      FROM Vendors V
22      JOIN Products P ON V.vend_id = P.vend_id
23      GROUP BY V.vend_name;
24
```

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

vend_name	average_price
▶ Doll House Inc.	51.932500
Bears R Us	8.990000
Fun and Games	9.490000

3. What is the average product price for vendor *Doll House Inc.*?

```
25      #3
26 ●    SELECT AVG(prod_price) as average_price
27      FROM Products
28   ⊖  WHERE vend_id = (
29          SELECT vend_id
30          FROM Vendors
31          WHERE vend_name = 'Doll House Inc.'
32      );
```

| Result Grid | 🔲 | 🔄 Filter Rows: | | Export: 💾 | Wrap Cell Content: 🔠 |

average_price
▶ 51.932500

4. Which customers bought products sourced from vendors from *USA* (return those customers' names)?

```
34      #4
35
36 ●    SELECT DISTINCT C.cust_name
37      FROM Customers C
38      JOIN Orders O ON C.cust_id = O.cust_id
39      JOIN OrderItems OT ON O.order_num = OT.order_num
40      JOIN Products P ON OT.prod_id = P.prod_id
41      JOIN Vendors V ON P.vend_id = V.vend_id
42      WHERE V.vend_country = 'USA';
43
```

| Result Grid | 🔲 | 🔄 Filter Rows: | | Export: 💾 | Wrap Cell Content: 🔠 |

cust_name
▶ Village Toys
Fun4All
The Toy Store

5. What other products (return those products' names) are offered by vendors who offer products with *doll* in the product description?

```
43
44      #5
45
46 ●    SELECT P2.prod_name
47      FROM Products P1
48      JOIN Vendors V ON P1.vend_id = V.vend_id
49      JOIN Products P2 ON V.vend_id = P2.vend_id
50      WHERE P1.prod_desc LIKE '%doll%'
51      AND P2.prod_desc NOT LIKE '%doll%';
52
```

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

prod_name
▶ Fish bean bag toy
Bird bean bag toy
Rabbit bean bag toy

6. Using one INSERT statement, insert two records (id, name, city, state, zip, country) into the vendors table with IDs *GRE01* and *STK01*. Vendor with ID *GRE01* is located in Paris, France, and as such does not have a value for state to input. Make up the remainder of the data to insert.

```
52
53      #6
54 ●    INSERT INTO Vendors (vend_id, vend_name, vend_address, vend_city, vend_state, vend_zip, vend_country)
55      VALUES
56        ('GRE01', 'Green Paris', '123 Champs-Élysées', 'Paris', NULL, '75008', 'France'),
57        ('STK01', 'Stockholm Supplies', '456 Viking Way', 'Stockholm', 'AB', '10012', 'Sweden');
58
```

7. A mistake was made, and the vendor with ID *GRE01* is actually located in Paris, Texas, with a zip code of *75460*. Using one statement, update this vendors state, zip, and country.

```
59      #7
60 ●    UPDATE Vendors
61      SET vend_city = 'Paris', vend_state = 'TX', vend_zip = '75460', vend_country = 'USA'
62      WHERE vend_id = 'GRE01';
63
```

8. You no longer do business with several vendors, with IDs *GRE01* and *STK01*. Using one SQL statement, delete them from your database.

```
64    #8
65
66 •  DELETE FROM Vendors
67    WHERE vend_id IN ('GRE01', 'STK01');
68
69
```