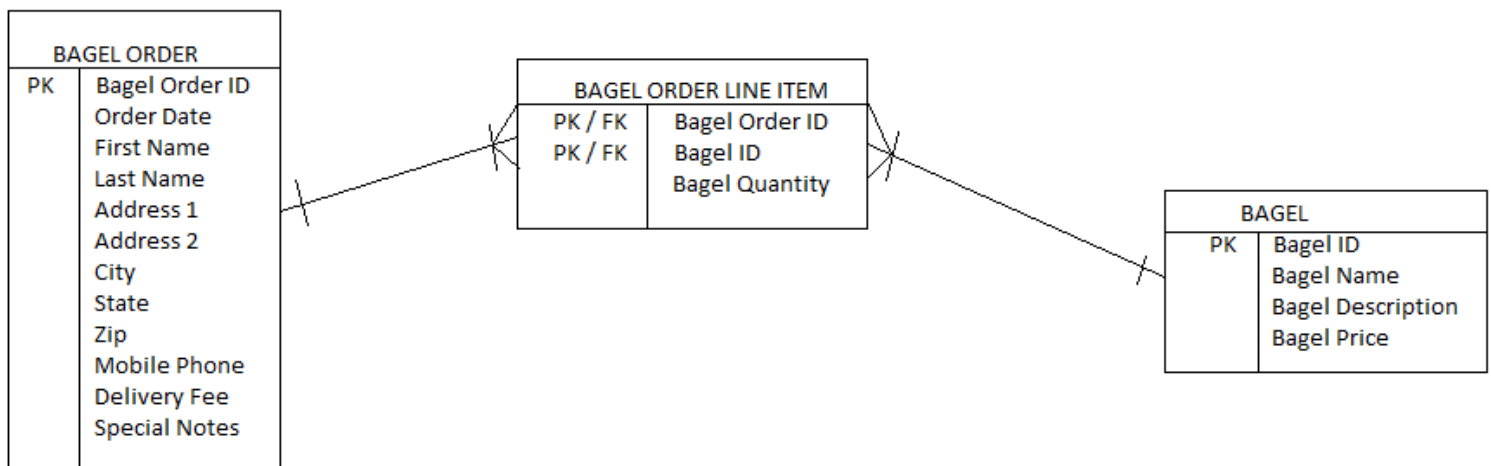Connor Weldy
Student ID 001106451
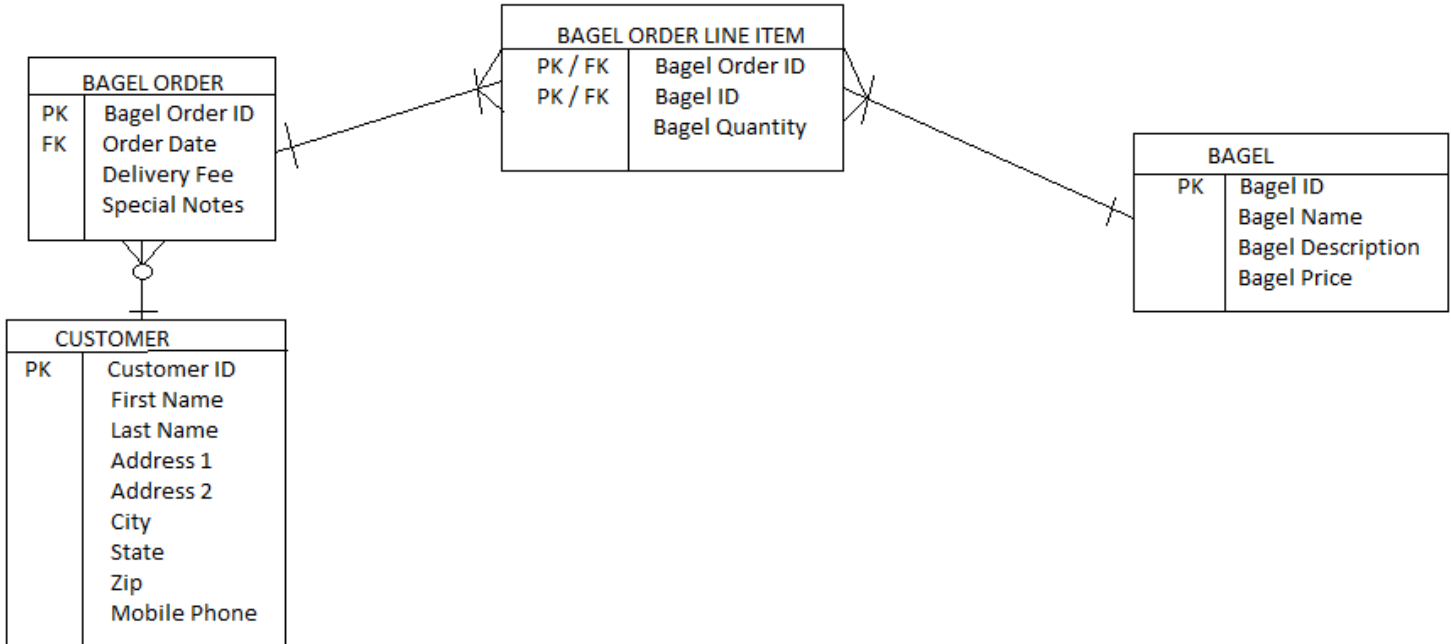C170 VHT2 Task 1
30 December 2021

Part A

1) Moving data from 1NF to 2NF

      In first normal form all of the attributes to the Bagel Order are in a single table with no repeating groups. Moving the attributes into Second Normal Form requires that all of the attributes of the primary key are functionally dependent on it. This means for example, with the Bagel ID being a Primary key must have the following attributes depending on that bagel ID. Another example is with the Bagel Quantity of each Line Item, being functionally dependent on what kind of bagel it is (Bagel ID) and the order it belongs to (Bagel Order ID). I determined the cardinality of the relationships of the tables by understanding how each order is designed. Each Bagel order that a customer places can have multiple bagels on it (Bagel Order Line Item) but the line item must belong to one bagel order, making this relationship 1:M (Bagel Order:Line Item). Each Line Item can have only one type of bagel on it, but each type of bagel can be a part of multiple orders, making that relationship a M:1 (Line Item:Bagel).

BAGEL ORDER	
PK	Bagel Order ID
	Order Date
	First Name
	Last Name
	Address 1
	Address 2
	City
	State
	Zip
	Mobile Phone
	Delivery Fee
	Special Notes

BAGEL ORDER LINE ITEM	
PK / FK	Bagel Order ID
PK / FK	Bagel ID
	Bagel Quantity

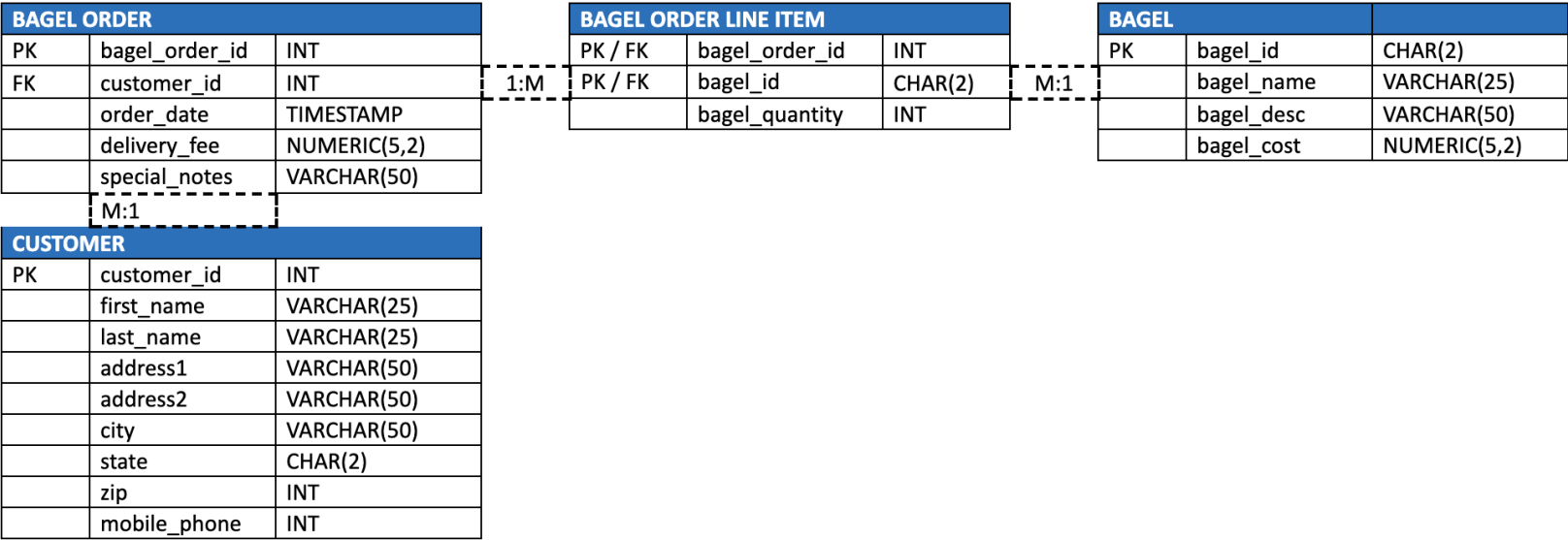| BAGEL	
PK	Bagel ID
	Bagel Name
	Bagel Description
	Bagel Price

2) Moving data from 2NF to 3NF

   In order to move the data into the third normal form, I looked for what data could be repeated within each table and found that within the Bagel Order, there could be a repeating customer. I created a new table because of this so there is no repeating data within the tables. I determined the cardinality of the relationships of the tables by reviewing the design of the order form once more. With the new table being a customer, I determined that each customer can have many bagel orders but each bagel order must belong to one customer, thus being a M:1 (Bagel Order:Customer) relationship. Every other table is the same as before, with each bagel order allowing multiple line items and each line item can only have one type of bagel.

BAGEL ORDER LINE ITEM

PK / FK	Bagel Order ID
PK / FK	Bagel ID
	Bagel Quantity

BAGEL ORDER

PK	Bagel Order ID
FK	Order Date
	Delivery Fee
	Special Notes

BAGEL

PK	Bagel ID
	Bagel Name
	Bagel Description
	Bagel Price

CUSTOMER

PK	Customer ID
	First Name
	Last Name
	Address 1
	Address 2
	City
	State
	Zip
	Mobile Phone

3) Final Physical Database Blueprint

BAGEL ORDER

PK	bagel_order_id	INT
FK	customer_id	INT
	order_date	TIMESTAMP
	delivery_fee	NUMERIC(5,2)
	special_notes	VARCHAR(50)

M:1

CUSTOMER

PK	customer_id	INT
	first_name	VARCHAR(25)
	last_name	VARCHAR(25)
	address1	VARCHAR(50)
	address2	VARCHAR(50)
	city	VARCHAR(50)
	state	CHAR(2)
	zip	INT
	mobile_phone	INT

1:M

BAGEL ORDER LINE ITEM

PK / FK	bagel_order_id	INT
PK / FK	bagel_id	CHAR(2)
	bagel_quantity	INT

M:1

BAGEL

PK	bagel_id	CHAR(2)
	bagel_name	VARCHAR(25)
	bagel_desc	VARCHAR(50)
	bagel_cost	NUMERIC(5,2)

Part B

1) Create Tables

```sql
CREATE TABLE IF NOT EXISTS SUPPLIER      (
        supplier_id INTEGER,
        company_name VARCHAR(50),
        country VARCHAR(30),
        sales_contact_name VARCHAR(60),
        email VARCHAR(50) NOT NULL,
        PRIMARY KEY(supplier_id)
);

CREATE TABLE IF NOT EXISTS COFFEE_SHOP(
        shop_id INTEGER,
        shop_name VARCHAR(50),
        city VARCHAR(50),
        state CHAR(2),
        PRIMARY KEY(shop_id)
);

CREATE TABLE IF NOT EXISTS EMPLOYEE      (
        employee_id INTEGER,
        first_name VARCHAR(30),
        last_name VARCHAR(30),
        hire_date DATE,
        job_title VARCHAR(30),
        shop_id INTEGER,
        PRIMARY KEY (employee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id)
);

CREATE TABLE IF NOT EXISTS COFFEE        (
        coffee_id INTEGER,
        shop_id INTEGER,
        supplier_id INTEGER,
        coffee_name VARCHAR(30),
        price_per_pound NUMERIC(5,2),
        PRIMARY KEY(coffee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
        FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
);
```

```
 3      company_name VARCHAR(50),
 4      country VARCHAR(30),
 5      sales_contact_name VARCHAR(60),
 6      email VARCHAR(50) NOT NULL,
 7      PRIMARY KEY(supplier_id)
 8  );
 9
10  CREATE TABLE IF NOT EXISTS COFFEE_SHOP  (
11      shop_id INTEGER,
12      shop_name VARCHAR(50),
13      city VARCHAR(50),
14      state CHAR(2),
15      PRIMARY KEY(shop_id)
16  );
17
18  CREATE TABLE IF NOT EXISTS EMPLOYEE (
19      employee_id INTEGER,
20      first_name VARCHAR(30),
21      last_name VARCHAR(30),
22      hire_date DATE,
23      job_title VARCHAR(30),
24      shop_id INTEGER,
25      PRIMARY KEY (employee_id),
26      FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id)
27  );
28
29  CREATE TABLE IF NOT EXISTS COFFEE   (
30      coffee_id INTEGER,
31      shop_id INTEGER,
32      supplier_id INTEGER,
33      coffee_name VARCHAR(30),
34      price_per_pound NUMERIC(5,2),
35      PRIMARY KEY(coffee_id),
36      FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
37      FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38  );
```

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✔ Schema Ready

2) Insert Statements

```sql
CREATE TABLE IF NOT EXISTS SUPPLIER      (
        supplier_id INTEGER,
        company_name VARCHAR(50),
        country VARCHAR(30),
        sales_contact_name VARCHAR(60),
        email VARCHAR(50) NOT NULL,
        PRIMARY KEY(supplier_id)
);

CREATE TABLE IF NOT EXISTS COFFEE_SHOP(
        shop_id INTEGER,
        shop_name VARCHAR(50),
        city VARCHAR(50),
        state CHAR(2),
        PRIMARY KEY(shop_id)
);

CREATE TABLE IF NOT EXISTS EMPLOYEE      (
        employee_id INTEGER,
        first_name VARCHAR(30),
        last_name VARCHAR(30),
        hire_date DATE,
        job_title VARCHAR(30),
        shop_id INTEGER,
        PRIMARY KEY (employee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id)
);

CREATE TABLE IF NOT EXISTS COFFEE        (
        coffee_id INTEGER,
        shop_id INTEGER,
        supplier_id INTEGER,
        coffee_name VARCHAR(30),
        price_per_pound NUMERIC(5,2),
        PRIMARY KEY(coffee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
        FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
);

INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email)      VALUES
        (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
        (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
        (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');

INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)      VALUES
        (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
        (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
        (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');

INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)      VALUES
        (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
        (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
        (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
        (2004, 'George', 'Washington', 20070909, 'Barista', 0002);

INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)      VALUES
        (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
        (3002, 0001, 1002, 'Yosemite Roast', 9.99),
        (3003, 0002, 1002, 'Applilations Dark', 7.99),
        (3004, 0002, 1001, 'Country Field', 4.99),
        (3005, 0003, 1001, 'Redneck Roast', 6.98),
        (3006, 0003, 1003, '2nd Street Roast', 7.99);
```

```sql
27 );
28
29 CREATE TABLE IF NOT EXISTS COFFEE   (
30     coffee_id INTEGER,
31     shop_id INTEGER,
32     supplier_id INTEGER,
33     coffee_name VARCHAR(30),
34     price_per_pound NUMERIC(5,2),
35     PRIMARY KEY(coffee_id),
36     FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
37     FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38 );
39
40 INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email) VALUES
41     (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
42     (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
43     (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');
44
45 INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)    VALUES
46     (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
47     (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
48     (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');
49
50 INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)    VALUES
51     (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
52     (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
53     (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
54     (2004, 'George', 'Washington', 20070909, 'Barista', 0002);
55
56 INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)    VALUES
57     (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
58     (3002, 0001, 1002, 'Yosemite Roast', 9.99),
59     (3003, 0002, 1002, 'Applilations Dark', 7.99),
60     (3004, 0002, 1001, 'Country Field', 4.99),
61     (3005, 0003, 1001, 'Redneck Roast', 6.98),
62     (3006, 0003, 1003, '2nd Street Roast', 7.99);
```

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✔ Schema Ready

3) View

```sql
CREATE TABLE IF NOT EXISTS SUPPLIER        (
        supplier_id INTEGER,
        company_name VARCHAR(50),
        country VARCHAR(30),
        sales_contact_name VARCHAR(60),
        email VARCHAR(50) NOT NULL,
        PRIMARY KEY(supplier_id)
);

CREATE TABLE IF NOT EXISTS COFFEE_SHOP(
        shop_id INTEGER,
        shop_name VARCHAR(50),
        city VARCHAR(50),
        state CHAR(2),
        PRIMARY KEY(shop_id)
);

CREATE TABLE IF NOT EXISTS EMPLOYEE      (
        employee_id INTEGER,
        first_name VARCHAR(30),
        last_name VARCHAR(30),
        hire_date DATE,
        job_title VARCHAR(30),
        shop_id INTEGER,
        PRIMARY KEY (employee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id)
);

CREATE TABLE IF NOT EXISTS COFFEE        (
        coffee_id INTEGER,
        shop_id INTEGER,
        supplier_id INTEGER,
        coffee_name VARCHAR(30),
        price_per_pound NUMERIC(5,2),
        PRIMARY KEY(coffee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
        FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
);

INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email)        VALUES
        (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
        (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
        (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');

INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)        VALUES
        (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
        (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
        (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');

INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)        VALUES
        (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
        (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
        (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
        (2004, 'George', 'Washington', 20070909, 'Barista', 0002);

INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)     VALUES
        (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
        (3002, 0001, 1002, 'Yosemite Roast', 9.99),
        (3003, 0002, 1002, 'Appilations Dark', 7.99),
        (3004, 0002, 1001, 'Country Field', 4.99),
        (3005, 0003, 1001, 'Redneck Roast', 6.98),
        (3006, 0003, 1003, '2nd Street Roast', 7.99);

CREATE VIEW employee_view AS SELECT
        employee_id,
        CONCAT(first_name, " ", last_name)        employee_full_name,
        hire_date,
        job_title,
        shop_id
        FROM EMPLOYEE;
```

```
35      PRIMARY KEY(coffee_id),
36      FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
37      FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38  );
39
40  INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email) VALUES
41      (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
42      (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
43      (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');
44
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47      (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
48      (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');
49
50  INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)    VALUES
51      (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
52      (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
53      (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
54      (2004, 'George', 'Washington', 20070909, 'Barista', 0002);
55
56  INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)    VALUES
57      (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
58      (3002, 0001, 1002, 'Yosemite Roast', 9.99),
59      (3003, 0002, 1002, 'Applilations Dark', 7.99),
60      (3004, 0002, 1001, 'Country Field', 4.99),
61      (3005, 0003, 1001, 'Redneck Roast', 6.98),
62      (3006, 0003, 1003, '2nd Street Roast', 7.99);
63
64  CREATE VIEW employee_view AS SELECT
65      employee_id,
66      CONCAT(first_name, " ", last_name)  employee_full_name,
67      hire_date,
68      job_title,
69      shop_id
70      FROM EMPLOYEE;
```

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✔ Schema Ready

4) Index

```sql
CREATE TABLE IF NOT EXISTS SUPPLIER        (
        supplier_id INTEGER,
        company_name VARCHAR(50),
        country VARCHAR(30),
        sales_contact_name VARCHAR(60),
        email VARCHAR(50) NOT NULL,
        PRIMARY KEY(supplier_id)
);

CREATE TABLE IF NOT EXISTS COFFEE_SHOP(
        shop_id INTEGER,
        shop_name VARCHAR(50),
        city VARCHAR(50),
        state CHAR(2),
        PRIMARY KEY(shop_id)
);

CREATE TABLE IF NOT EXISTS EMPLOYEE      (
        employee_id INTEGER,
        first_name VARCHAR(30),
        last_name VARCHAR(30),
        hire_date DATE,
        job_title VARCHAR(30),
        shop_id INTEGER,
        PRIMARY KEY (employee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id)
);

CREATE TABLE IF NOT EXISTS COFFEE         (
        coffee_id INTEGER,
        shop_id INTEGER,
        supplier_id INTEGER,
        coffee_name VARCHAR(30),
        price_per_pound NUMERIC(5,2),
        PRIMARY KEY(coffee_id),
        FOREIGN KEY(shop_id) REFERENCES COFFEE_SHOP(shop_id),
        FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
);

INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email)        VALUES
        (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
        (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
        (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');

INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)        VALUES
        (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
        (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
        (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');

INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)        VALUES
        (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
        (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
        (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
        (2004, 'George', 'Washington', 20070909, 'Barista', 0002);

INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)     VALUES
        (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
        (3002, 0001, 1002, 'Yosemite Roast', 9.99),
        (3003, 0002, 1002, 'Appliations Dark', 7.99),
        (3004, 0002, 1001, 'Country Field', 4.99),
        (3005, 0003, 1001, 'Redneck Roast', 6.98),
        (3006, 0003, 1003, '2nd Street Roast', 7.99);

CREATE VIEW employee_view AS SELECT
        employee_id,
        CONCAT(first_name, " ", last_name)       employee_full_name,
        hire_date,
        job_title,
        shop_id
        FROM EMPLOYEE;

CREATE INDEX  coffee_name ON COFFEE(coffee_name);
```

```sql
37      FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38  );
39
40  INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email) VALUES
41      (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
42      (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
43      (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');
44
45  INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)    VALUES
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49
50  INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)    VALUES
51      (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
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53      (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
54      (2004, 'George', 'Washington', 20070909, 'Barista', 0002);
55
56  INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)    VALUES
57      (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
58      (3002, 0001, 1002, 'Yosemite Roast', 9.99),
59      (3003, 0002, 1002, 'Applilations Dark', 7.99),
60      (3004, 0002, 1001, 'Country Field', 4.99),
61      (3005, 0003, 1001, 'Redneck Roast', 6.98),
62      (3006, 0003, 1003, '2nd Street Roast', 7.99);
63
64  CREATE VIEW employee_view AS SELECT
65      employee_id,
66      CONCAT(first_name, " ", last_name)  employee_full_name,
67      hire_date,
68      job_title,
69      shop_id
70      FROM EMPLOYEE;
71
72  CREATE INDEX  coffee_name ON COFFEE(coffee_name);
```

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✔ Schema Ready

5) SELECT-FROM-WHERE

```
37   FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38   );
39
40   INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email) VALUES
41       (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
42       (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
43       (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');
44
45   INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)    VALUES
46       (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
47       (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
48       (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');
49
50   INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)    VALUES
51       (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
52       (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
53       (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
54       (2004, 'George', 'Washington', 20070909, 'Barista', 0002);
55
56   INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)    VALUES
57       (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
58       (3002, 0001, 1002, 'Yosemite Roast', 9.99),
59       (3003, 0002, 1002, 'Applilations Dark', 7.99),
60       (3004, 0002, 1001, 'Country Field', 4.99),
61       (3005, 0003, 1001, 'Redneck Roast', 6.98),
62       (3006, 0003, 1003, '2nd Street Roast', 7.99);
63
64   CREATE VIEW employee_view AS SELECT
65       employee_id,
66       CONCAT(first_name, " ", last_name)  employee_full_name,
67       hire_date,
68       job_title,
69       shop_id
70       FROM EMPLOYEE;
71
72   CREATE INDEX  coffee_name ON COFFEE(coffee_name);
```

```
1   SELECT coffee_name FROM COFFEE WHERE shop_id = 0001;
```

coffee_name
Dark Alley Roast
Yosemite Roast

✔ Record Count: 2; Execution Time: 1ms   ✛ View Execution Plan   → link

6) Join Query

```
37   FOREIGN KEY(supplier_id) REFERENCES SUPPLIER(supplier_id)
38   );
39
40   INSERT INTO SUPPLIER(supplier_id, company_name, country, sales_contact_name, email) VALUES
41       (1001, 'Big Roast Farms', 'United States', 'Tyler Marshall', 'tmarshall@bigroast.com'),
42       (1002, 'Mountain Coffee Co.', 'Colombia', 'Joshua Hellard', 'jhellard@mountaincoffee.com'),
43       (1003, 'Main Street Beans', 'United States', 'Kyle Kanwisher', 'kkanwisher@msbeans.com');
44
45   INSERT INTO COFFEE_SHOP(shop_id, shop_name, city, state)    VALUES
46       (0001, 'Starbucks Coffee Co.', 'Jacksonville', 'FL'),
47       (0002, 'Deathwish Coffee Co.', 'Salt Lake City', 'UT'),
48       (0003, 'Black Rifle Coffee Co.', 'Indianapolis', 'IN');
49
50   INSERT INTO  EMPLOYEE(employee_id, first_name, last_name, hire_date, job_title, shop_id)    VALUES
51       (2001, 'Franco', 'Brino', 20190406, 'Barista', 0001),
52       (2002, 'Brandon', 'Bradlee', 20200811, 'Manager', 0001),
53       (2003, 'Connor', 'Weldy', 20211210, 'Janitor', 0003),
54       (2004, 'George', 'Washington', 20070909, 'Barista', 0002);
55
56   INSERT INTO COFFEE(coffee_id, shop_id, supplier_id, coffee_name, price_per_pound)    VALUES
57       (3001, 0001, 1003, 'Dark Alley Roast', 8.99),
58       (3002, 0001, 1002, 'Yosemite Roast', 9.99),
59       (3003, 0002, 1002, 'Applilations Dark', 7.99),
60       (3004, 0002, 1001, 'Country Field', 4.99),
61       (3005, 0003, 1001, 'Redneck Roast', 6.98),
62       (3006, 0003, 1003, '2nd Street Roast', 7.99);
63
64   CREATE VIEW employee_view AS SELECT
65       employee_id,
66       CONCAT(first_name, " ", last_name)  employee_full_name,
67       hire_date,
68       job_title,
69       shop_id
70       FROM EMPLOYEE;
71
72   CREATE INDEX  coffee_name ON COFFEE(coffee_name);
```

```
1   SELECT e.first_name, e.last_name, e.job_title, s.shop_name, c.coffee_name
2       FROM EMPLOYEE e
3       LEFT JOIN COFFEE_SHOP s
4       ON e.shop_id = s.shop_id
5       LEFT JOIN COFFEE c
6       ON e.shop_id = c.shop_id;
7
```

Build Schema · Edit Fullscreen · Browser · [;] ▾   Run SQL ▶ ▾ · Edit Fullscreen · [;] ▾

first_name	last_name	job_title	shop_name	coffee_name
Franco	Brino	Barista	Starbucks Coffee Co.	Dark Alley Roast
Franco	Brino	Barista	Starbucks Coffee Co.	Yosemite Roast
Brandon	Bradlee	Manager	Starbucks Coffee Co.	Dark Alley Roast
Brandon	Bradlee	Manager	Starbucks Coffee Co.	Yosemite Roast
Connor	Weldy	Janitor	Black Rifle Coffee Co.	Redneck Roast
Connor	Weldy	Janitor	Black Rifle Coffee Co.	2nd Street Roast
George	Washington	Barista	Deathwish Coffee Co.	Applilations Dark
George	Washington	Barista	Deathwish Coffee Co.	Country Field

✔ Record Count: 8; Execution Time: 8ms   ✛ View Execution Plan   ➜ link