

- B. Create a database using the attached "Jaunty Coffee Co. ERD" by doing the following:
1. Develop SQL code to create *each* table as specified in the attached "Jaunty Coffee Co. ERD" by doing the following:

a. Provide the SQL code you wrote to create *all* the tables.

COFFEE SHOP Table SCRIPT:

```
CREATE TABLE `COFFEE_SHOP` (  
  `shop_id` int NOT NULL,  
  `shop_name` varchar(50) NOT NULL,  
  `city` varchar(50) NOT NULL,  
  `state` char(2) NOT NULL,  
  PRIMARY KEY (`shop_id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

SUPPLIER SHOP Table SCRIPT:

```
CREATE TABLE `SUPPLIER` (  
  `supplier_id` int NOT NULL,  
  `company_name` varchar(50) DEFAULT NULL,  
  `country` varchar(30) DEFAULT NULL,  
  `sales_contact_name` varchar(60) DEFAULT NULL,  
  `email` varchar(50) NOT NULL,  
  PRIMARY KEY (`supplier_id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

EMPLOYEE SHOP Table SCRIPT:

```
CREATE TABLE `EMPLOYEE` (  
  `employee_id` int NOT NULL,  
  `first_name` varchar(30) DEFAULT NULL,  
  `last_name` varchar(30) DEFAULT NULL,  
  `hire_date` datetime DEFAULT NULL,  
  `job_title` varchar(30) DEFAULT NULL,  
  `shop_id` int DEFAULT NULL,  
  PRIMARY KEY (`employee_id`),  
  KEY `shop_id_idx` (`shop_id`),  
  CONSTRAINT `shop_id` FOREIGN KEY (`shop_id`) REFERENCES `COFFEE_SHOP` (`shop_id`)  
  ON DELETE CASCADE ON UPDATE CASCADE  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

COFFEE Table SCRIPT:

```
CREATE TABLE `COFFEE` (  
  `coffee_id` int NOT NULL,  
  `shop_id` int DEFAULT NULL,  
  `supplier_id` int DEFAULT NULL,  
  `coffee_name` varchar(30) DEFAULT NULL,  
  `price_per_pound` decimal(5,2) DEFAULT NULL,
```

```

PRIMARY KEY (`coffee_id`),
KEY `shop_id_idx` (`shop_id`),
KEY `supplier_id_idx` (`supplier_id`),
CONSTRAINT `shop_id_reference` FOREIGN KEY (`shop_id`) REFERENCES `COFFEE_SHOP`
(`shop_id`) ON DELETE CASCADE ON UPDATE CASCADE,
CONSTRAINT `supplier_id` FOREIGN KEY (`supplier_id`) REFERENCES `SUPPLIER`
(`supplier_id`) ON DELETE CASCADE ON UPDATE CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;

```

b. Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server's response.

COFFEE_SHOP Table SCRIPT RESPONSE SCREENSHOT:

The screenshot shows a SQL IDE with the following command executed:

```

1 CREATE TABLE `COFFEE_SHOP` (
2   `shop_id` int NOT NULL,
3   `shop_name` varchar(50) NOT NULL,
4   `city` varchar(50) NOT NULL,
5   `state` char(2) NOT NULL,
6   PRIMARY KEY (`shop_id`)
7 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
8

```

The interface shows a 'Result Grid' with the following columns: shop_id, shop_name, city, state. The first row of data is all NULL.

shop_id	shop_name	city	state
NULL	NULL	NULL	NULL

SUPPLIER SHOP Table SCRIPT RESPONSE SCREENSHOT:

The screenshot shows a SQL IDE with the following commands executed:

```

1 CREATE TABLE `SUPPLIER` (
2   `supplier_id` int NOT NULL,
3   `company_name` varchar(50) DEFAULT NULL,
4   `country` varchar(30) DEFAULT NULL,
5   `sales_contact_name` varchar(60) DEFAULT NULL,
6   `email` varchar(50) NOT NULL,
7   PRIMARY KEY (`supplier_id`)
8 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
9 SELECT * FROM `JauntyCoffee Co. ERD`.SUPPLIER;

```

The interface shows a 'Result Grid' with the following columns: supplier_id, company_name, country, sales_contact_na..., email. The first row of data is all NULL.

supplier_id	company_name	country	sales_contact_na...	email
NULL	NULL	NULL	NULL	NULL

EMPLOYEE Table SCRIPT RESPONSE SCREENSHOT:

```
1 • CREATE TABLE `EMPLOYEE` (  
2     `employee_id` int NOT NULL,  
3     `first_name` varchar(30) DEFAULT NULL,  
4     `last_name` varchar(30) DEFAULT NULL,  
5     `hire_date` datetime DEFAULT NULL,  
6     `job_title` varchar(30) DEFAULT NULL,  
7     `shop_id` int DEFAULT NULL,  
8     PRIMARY KEY (`employee_id`),  
9     KEY `shop_id_idx` (`shop_id`),  
10    CONSTRAINT `shop_id` FOREIGN KEY (`shop_id`) REFERENCES  
11    | `COFFEE_SHOP` (`shop_id`) ON DELETE CASCADE ON UPDATE CASCADE  
12    ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;  
13 • SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;
```

100% 3:11

Result Grid Filter Rows: Search Edit: Export/Import:

	employee_id	first_name	last_name	hire_date	job_title	sh...
▶	NULL	NULL	NULL	NULL	NULL	NULL

COFFEE Table SCRIPT RESPONSE SCREENSHOT:

```
1 • CREATE TABLE `COFFEE` (  
2     `coffee_id` int NOT NULL,  
3     `shop_id` int DEFAULT NULL,  
4     `supplier_id` int DEFAULT NULL,  
5     `coffee_name` varchar(30) DEFAULT NULL,  
6     `price_per_pound` decimal(5,2) DEFAULT NULL,  
7     PRIMARY KEY (`coffee_id`),  
8     KEY `shop_id_idx` (`shop_id`),  
9     KEY `supplier_id_idx` (`supplier_id`),  
10    CONSTRAINT `shop_id_reference` FOREIGN KEY (`shop_id`) REFERENCES  
11    | `COFFEE_SHOP` (`shop_id`) ON DELETE CASCADE ON UPDATE CASCADE,  
12    CONSTRAINT `supplier_id` FOREIGN KEY (`supplier_id`) REFERENCES  
13    | `SUPPLIER` (`supplier_id`) ON DELETE CASCADE ON UPDATE CASCADE  
14    ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;  
15 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;
```

100% 3:13

Result Grid Filter Rows: Search Edit: Export/Import:

	coffee_id	shop_id	supplier_id	coffee_name	price_per_pou...
▶	NULL	NULL	NULL	NULL	NULL

2. Develop SQL code to populate *each* table in the database design document by doing the following:

Note: This data is not provided. You will be fabricating the data for this step.

a. Provide the SQL code you wrote to populate the tables with *at least* three rows of data in *each* table.

INSERT SCRIPT FOR COFFEE SHOP TABLE

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(1, "KAPIL COFFEE", "Seattle", "WA");
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(2, "TJ COFFEE", "Bothell", "WA");
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(3, "Jackson COFFEE", "Renton", "WA");
```

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
```

INSERT SCRIPT FOR SUPPLIER TABLE

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(1, "KAPIL COFFEE", "Seattle", "WA");
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(2, "TJ COFFEE", "Bothell", "WA");
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP  
VALUES(3, "Jackson COFFEE", "Renton", "WA");
```

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
```

INSERT SCRIPT FOR EMPLOYEE TABLE

```
SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE  
VALUES('345', 'David', 'Leanord', '2017-06-15', 'Barista', '1');
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE  
VALUES('346', 'William', 'Cork', '2017-06-15', 'Manager', '2');
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE  
VALUES('347', 'Micheal', 'Fox', '2017-06-15', 'Janitor', '3');
```

```
SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;
```

INSERT SCRIPT FOR COFFEE TABLE

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE  
VALUES('55', '1', '101', 'CAFFÈ LATTE', '1.50');
```

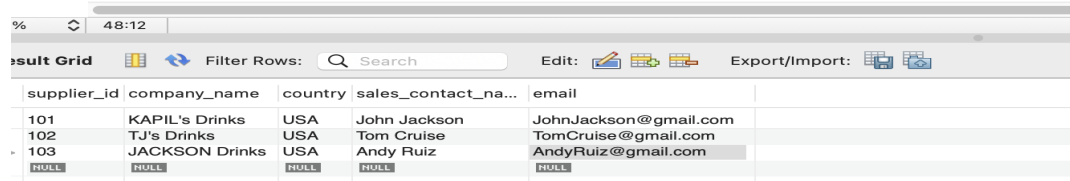
```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE  
VALUES('56', '2', '102', 'CAFFÈ MOCHA', '1.60');
```

```
INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE  
VALUES('57', '3', '103', 'CAFÈ AU LAIT', '2.10');
```

```
SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;
```

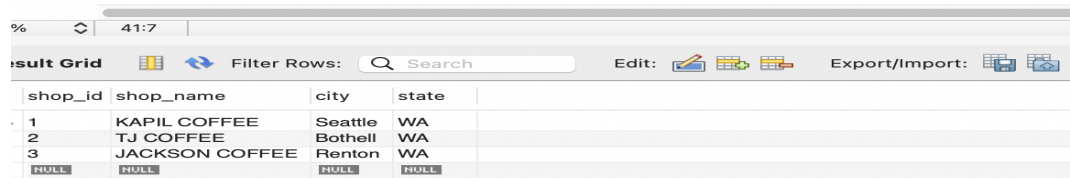
b. Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server's response.

```
1 • SELECT * FROM `Jaunty Coffee Co. ERD`.SUPPLIER;
2
3 • INSERT INTO `Jaunty Coffee Co. ERD`.SUPPLIER
4   VALUES(101, "KAPIL's Drinks", "USA", "John Jackson", "JohnJackson@gmail.com");
5
6 • INSERT INTO `Jaunty Coffee Co. ERD`.SUPPLIER
7   VALUES(102, "TJ's Drinks", "USA", "Tom Cruise", "TomCruise@gmail.com");
8
9 • INSERT INTO `Jaunty Coffee Co. ERD`.SUPPLIER
10  VALUES(103, "JACKSON Drinks", "USA", "Andy Ruiz", "AndyRuiz@gmail.com");
11
12 • SELECT * FROM `Jaunty Coffee Co. ERD`.SUPPLIER;
```



supplier_id	company_name	country	sales_contact_na...	email
101	KAPIL's Drinks	USA	John Jackson	JohnJackson@gmail.com
102	TJ's Drinks	USA	Tom Cruise	TomCruise@gmail.com
103	JACKSON Drinks	USA	Andy Ruiz	AndyRuiz@gmail.com

```
1 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
2
3 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP
4   VALUES(1, "KAPIL COFFEE", "Seattle", "WA");
5
6 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP
7   VALUES(2, "TJ COFFEE", "Bothell", "WA");
8
9 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE_SHOP
10  VALUES(3, "JACKSON COFFEE", "Renton", "WA");
11
12 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;
```



shop_id	shop_name	city	state
1	KAPIL COFFEE	Seattle	WA
2	TJ COFFEE	Bothell	WA
3	JACKSON COFFEE	Renton	WA

```

1 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;
2
3 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE
4   VALUES('55', '1', '101', 'CAFFÈ LATTE', '1.50');
5
6 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE
7   VALUES('56', '2', '102', 'CAFFÈ MOCHA', '1.60');
8
9 • INSERT INTO `Jaunty Coffee Co. ERD`.COFFEE
10  VALUES('57', '3', '103', 'CAFÈ AU LAIT', '2.10');
11
12 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;

```

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Result Grid Filter Rows: Search Edit:

	coffee_id	shop_id	supplier_id	coffee_name	price_per_pou...
	55	1	101	CAFFÈ LATTE	1.50
	56	2	102	CAFFÈ MOCHA	1.60
	57	3	103	CAFÈ AU LAIT	2.10
	NULL	NULL	NULL	NULL	NULL

```

1 • SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;
2
3 • INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE
4   VALUES('345', 'David', 'Leanord', '2017-06-15', 'Barista', '1');
5
6 • INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE
7   VALUES('346', 'William', 'Cork', '2017-06-15', 'Manager', '2');
8
9 • INSERT INTO `Jaunty Coffee Co. ERD`.EMPLOYEE
10  VALUES('347', 'Micheal', 'Fox', '2017-06-15', 'Janitor', '3');
11
12 • SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;
13
14

```

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Result Grid Filter Rows: Search Edit: Export/Import:

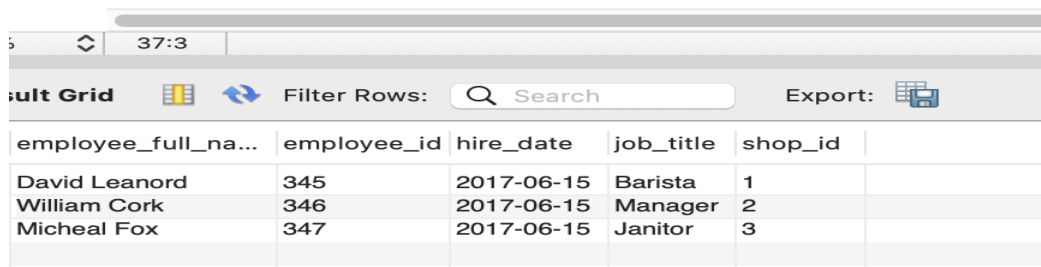
	employee_id	first_name	last_name	hire_date	job_title	shop_id
	345	David	Leanord	2017-06-15	Barista	1
	346	William	Cork	2017-06-15	Manager	2
	347	Micheal	Fox	2017-06-15	Janitor	3
	NULL	NULL	NULL	NULL	NULL	NULL

3. Develop SQL code to create a view by doing the following:
- Provide the SQL code you wrote to create your view. The view should show *all* of the information from the “Employee” table but concatenate *each* employee’s first and last name, formatted with a space between the first and last name, into a new attribute called employee_full_name.

```
CREATE VIEW EMPLOYEE_FULLNAME_VIEW  
AS SELECT CONCAT(first_name, " ", last_name) as 'employee_full_name',  
employee_id, hire_date, job_title, shop_id  
FROM Employee;
```

- Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server’s response.

```
1 • SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;  
2  
3 • SELECT * FROM EMPLOYEE_FULLNAME_VIEW
```



The screenshot shows a database interface with a SQL query editor at the top and a results grid below. The query is: `SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;` followed by a second query: `SELECT * FROM EMPLOYEE_FULLNAME_VIEW`. The results grid displays the following data:

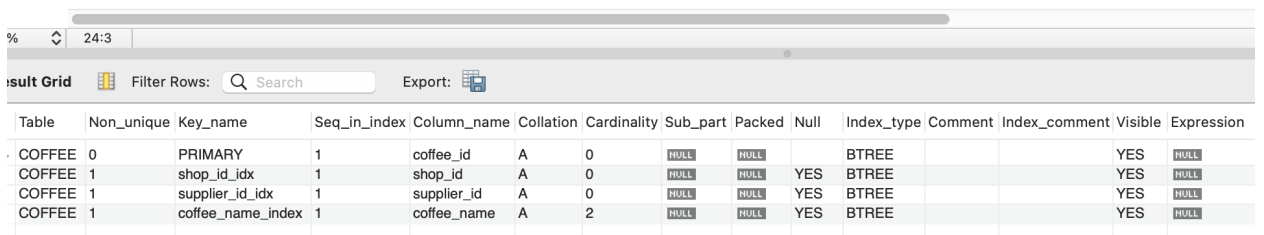
employee_full_na...	employee_id	hire_date	job_title	shop_id
David Leanord	345	2017-06-15	Barista	1
William Cork	346	2017-06-15	Manager	2
Micheal Fox	347	2017-06-15	Janitor	3

4. Develop SQL code to create an index on the coffee_name field by doing the following:
- Provide the SQL code you wrote to create your index on the coffee_name field from the “Coffee” table.

```
CREATE INDEX coffee_name_index  
ON `Jaunty Coffee Co. ERD`.COFFEE(coffee_name);
```

- Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server’s response.

3 • SHOW INDEX FROM COFFEE;



The screenshot shows a database client interface. At the top, there's a status bar with a percentage icon, a refresh icon, and the time 24:3. Below that is a toolbar with 'Result Grid', a filter icon, 'Filter Rows:', a search input, and an 'Export:' button with a download icon. The main area displays the results of the 'SHOW INDEX FROM COFFEE;' command in a table grid. The table has 15 columns: Table, Non_unique, Key_name, Seq_in_index, Column_name, Collation, Cardinality, Sub_part, Packed, Null, Index_type, Comment, Index_comment, Visible, and Expression. There are four rows of data, all for the 'COFFEE' table. The first row is the primary key for 'coffee_id'. The second and third rows are secondary keys for 'shop_id' and 'supplier_id'. The fourth row is the newly created index for 'coffee_name'.

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
COFFEE	0	PRIMARY	1	coffee_id	A	0				BTREE			YES	
COFFEE	1	shop_id_idx	1	shop_id	A	0			YES	BTREE			YES	
COFFEE	1	supplier_id_idx	1	supplier_id	A	0			YES	BTREE			YES	
COFFEE	1	coffee_name_index	1	coffee_name	A	2			YES	BTREE			YES	

5. Develop SQL code to create an SFW (SELECT-FROM-WHERE) query for *any* of your tables or views by doing the following:

a. Provide the SQL code you wrote to create your SFW query.

```
SELECT job_title, employee_id
FROM `Jaunty Coffee Co. ERD`.EMPLOYEE
WHERE hire_date = '2017-06-15';
```

b. Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server's response.

The screenshot displays a SQL query editor with the following code:

```
3 SELECT job_title, employee_id
4 FROM `Jaunty Coffee Co. ERD`.EMPLOYEE
5 WHERE hire_date = '2017-06-15';
```

Below the editor, a 'Result Grid' shows the output of the query. The grid has two columns: 'job_title' and 'employee_id'. The results are as follows:

	job_title	employee_id
▶	Barista	345
▶	Manager	346
▶	Janitor	347
▶	NULL	NULL

6. Develop SQL code to create a query by doing the following:

- a. Provide the SQL code you wrote to create your table joins query. The query should join together three different tables and include attributes from *all* three tables in its output.

```
SELECT coffee_id, COFFEE.shop_id, supplier_id, coffee_name, price_per_pound,  
employee_id, first_name, last_name, hire_date, shop_name, city, state,  
job_title  
FROM COFFEE INNER JOIN EMPLOYEE ON COFFEE.shop_id = EMPLOYEE.shop_id  
INNER JOIN COFFEE_SHOP  
ON COFFEE.shop_id = COFFEE_SHOP.shop_id;
```

- b. Demonstrate that you tested your code by providing a screenshot showing your SQL commands and the database server's response.

```
1 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE;  
2 • SELECT * FROM `Jaunty Coffee Co. ERD`.EMPLOYEE;  
3 • SELECT * FROM `Jaunty Coffee Co. ERD`.COFFEE_SHOP;  
4  
5 • SELECT coffee_id, COFFEE.shop_id, supplier_id, coffee_name, price_per_pound,  
6 employee_id, first_name, last_name, hire_date, shop_name, city, state,  
7 job_title  
8 FROM COFFEE INNER JOIN EMPLOYEE ON COFFEE.shop_id = EMPLOYEE.shop_id  
9 INNER JOIN COFFEE_SHOP  
10 ON COFFEE.shop_id = COFFEE_SHOP.shop_id;  
11
```

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Result Grid Filter Rows: Search Export:

	coffee_id	shop_id	supplier_id	coffee_name	price_per_pou...	employee_id	first_name	last_name	hire_date	shop_name	city	state	job_title
▶	55	1	101	CAFFÈ LATTE	1.50	345	David	Leanord	2017-06-15	KAPIL COFFEE	Seattle	WA	Barista
	56	2	102	CAFFÈ MOCHA	1.60	346	William	Cork	2017-06-15	TJ COFFEE	Bothell	WA	Manager
	57	3	103	CAFÈ AU LAIT	2.10	347	Micheal	Fox	2017-06-15	JACKSON COFFEE	Renton	WA	Janitor