Emily Fagan - Managing Car Sales Data

Task 1: Create a database to store and manage sales records. Name the database stylexcarz_db and use it to store database objects such as tables.
MySQL Code:

```
CREATE DATABASE stylexcarz_db;
```

Task 2: Create three tables to store the details of salespersons, customers, and car sales orders and name them salesperson, customers, and orders, respectively.
MySQL Code:

```
CREATE TABLE salespersons(
        salespersonid INT NOT NULL,
        salesperson_name TEXT NOT NULL,
        salesperson_city TEXT NOT NULL,
        commission_rate INT NOT NULL,
        PRIMARY KEY (salespersonid));
CREATE TABLE customers(
        customerid INT NOT NULL,
        c_firstname TEXT NOT NULL,
        c_lastname TEXT NOT NULL,
        c_city TEXT NOT NULL,
        c_rating INT NOT NULL,
        PRIMARY KEY (customerid));
CREATE TABLE orders(
        orderid INT NOT NULL,
        amount INT NOT NULL,
        orderdate DATE,
        salespersonid INT NOT NULL,
        customerid INT NOT NULL,
        PRIMARY KEY (orderid));
-- Forgot to add the two foreign keys that reference the salesperson table and the customers table. --
ALTER TABLE orders
ADD FOREIGN KEY (salespersonid) REFERENCES salespersons(salespersonid);
ALTER TABLE orders
ADD FOREIGN KEY (customerid) REFERENCES customers(customerid);
```

Task 3: Insert the data in the salespersons, customers, and orders tables by using the car sales data downloaded earlier.

MySQL Code:

```
INSERT INTO salespersons
VALUES
(1001, 'William', 'New York', 12),
(1002, 'Liam', 'New Jersey', 13),
(1003, 'Axelrod', 'San Jose', 10),
(1004, 'James', 'San Diego', 11),
(1005, 'Fran', 'Austin', 26),
(1007, 'Oliver', 'New York', 15),
(1008, 'John', 'Atlanta', 2),
(1009, 'Charles', 'New Jersey', 2);
```

Salespersons table:

salespersonid	salesperson_name	salesperson_city	commission_rate
1001	William	New York	12
1002	Liam	New Jersey	13
1003	Axelrod	San Jose	10
1004	James	San Diego	11
1005	Fran	Austin	26
1007	Oliver	New York	15
1008	John	Atlanta	2
1009	Charles	New Jersey	2
NULL	NULL	NULL	NULL

MySQL Code:

```
INSERT INTO customers
VALUES
(2001, 'Hoffman', 'Anny', 'New York', 1),
(2002, 'Giovanni', 'Jenny', 'New Jersey', 2),
(2003, 'Liu', 'Williams', 'San Jose', 3),
(2004, 'Grass', 'Harry', 'San Diego', 3),
(2005, 'Clemens', 'John', 'Austin', 4),
(2006, 'Cisneros', 'Fanny', 'New York', 4),
(2007, 'Pereira', 'Johnathan', 'Atlanta', 3);
```

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Customers table:

customerid	c_firstname	c_lastname	c_city	c_rating
2001	Hoffman	Anny	New York	1
2002	Giovanni	Jenny	New Jersey	2
2003	Liu	Williams	San Jose	3
2004	Grass	Harry	San Diego	3
2005	Clemens	John	Austin	4
2006	Cisneros	Fanny	New York	4
2007	Pereira	Johnathan	Atlanta	3
NULL	NULL	NULL	NULL	NULL

MySQL Code:

```
INSERT INTO orders
VALUES
(3001, 23, '2020-02-01', 1009, 2007),
(3002, 20, '2021-02-23', 1007, 2007),
(3003, 89, '2021-03-06', 1002, 2002),
(3004, 67, '2021-04-02', 1004, 2002),
(3005, 30, '2021-07-30', 1001, 2007),
(3006, 35, '2021-09-18', 1001, 2004),
(3007, 19, '2021-10-02', 1001, 2001),
(3008, 21, '2021-10-09', 1003, 2003),
(3009, 45, '2021-10-10', 1009, 2005);
```

Orders table:

orderid	amount	orderdate	salespersonid	customerid
3001	23	2020-02-01	1009	2007
3002	20	2021-02-23	1007	2007
3003	89	2021-03-06	1002	2002
3004	67	2021-04-02	1004	2002
3005	30	2021-07-30	1001	2007
3006	35	2021-09-18	1001	2004
3007	19	2021-10-02	1001	2001
3008	21	2021-10-09	1003	2003
3009	45	2021-10-10	1009	2005
NULL	NULL	NULL	NULL	NULL

Task 4: The company's salespersons need to meet their targets to get their commission. To motivate sales staff, the company wants to increase the commission to 15% for all those whose commission is below 15%.
MySQL Code:
I used the wrong function for this and ended up changing everyone's commission_rate to 15. Then I realized that all I had left to do was change Fran's commission_rate to be 26 because everyone else was below 15 anyway.

```
UPDATE salespersons
SET commission_rate = 26
WHERE salespersonid = 1005;
```

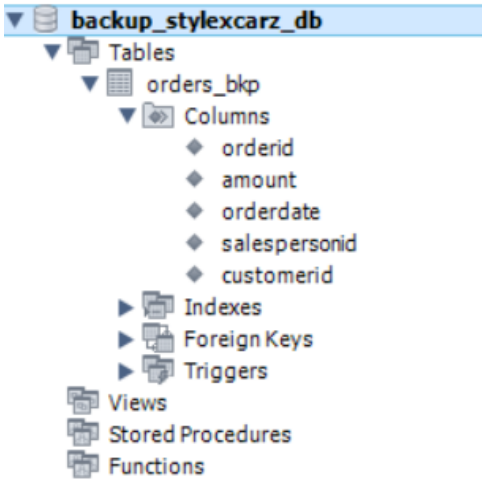
Updated table:

salespersonid	salesperson_name	salesperson_city	commission_rate
1001	William	New York	15
1002	Liam	New Jersey	15
1003	Axelrod	San Jose	15
1004	James	San Diego	15
1005	Fran	Austin	26
1007	Oliver	New York	15
1008	John	Atlanta	15
1009	Charles	New Jersey	15
NULL	NULL	NULL	NULL

Task 5: To prevent any loss of data, create a backup of the orders table and name it orders_bkp. The backup table should be saved in a new database.
MySQL Code:

```
CREATE DATABASE backup_stylexcarz_db;
CREATE TABLE orders_bkp LIKE stylexcarz_db.orders;
INSERT INTO orders_bkp
SELECT * FROM stylexcarz_db.orders;
```

Backup proof:



Task 6: The company follows the practice of rating its customers. This rating would help the customers to obtain discounts on the car service. Increase the rating by three points for the customers who have placed an order more than once.
MySQL Code:

```
UPDATE customers
SET c_rating = 5
WHERE customerid = 2002;

UPDATE customers
SET c_rating = 6
WHERE customerid = 2007;
```

New customer table:

customerid	c_firstname	c_lastname	c_city	c_rating
2001	Hoffman	Anny	New York	1
2002	Giovanni	Jenny	New Jersey	5
2003	Liu	Williams	San Jose	3
2004	Grass	Harry	San Diego	3
2005	Clemens	John	Austin	4
2006	Cisneros	Fanny	New York	4
2007	Pereira	Johnathan	Atlanta	6
NULL	NULL	NULL	NULL	NULL