Meal Kit Subscriptions

SQL

Task: Practice writing SQL Statements on the Meal Kits database.

Setup:
- Use an existing database or create a database called `MealKits`.
- Open up a SQL editor window. Copy-paste and run the CREATE TABLE and INSERT INTO queries [below](#).

Build Specifications:
Write SQL queries to do the following tasks. Record these queries in a text document and submit the document. You do not need to record the results of the queries.

1. Select all the records from the Customers table.
2. Find all customers who have a Premium subscription.
3. Get distinct States from the Customers table. Sort alphabetically. (Hint: research the DISTINCT keyword. Notice the difference with and without DISTINCT.)
4. Count the number of customers from the State of NY.
5. List the customer name and email data for customers with no subscription end date.
6. Create an index on the State column.
7. Insert a new customer into the Customers table.
8. Update Emma Collins to a Premium subscription.
9. Count the number of accounts who have an .edu email address. (Hint: research the LIKE operator.)
10. Delete all customers whose subscription has expired (assume the date today is August 1, 2024). [**See note below](#)
11. Select all premium customers in New York, listing their name and email address. Sort by name in ascending order.
12. Create a new table called Meals, with the following columns:
    - MealID - INT IDENTITY(1,1) PRIMARY KEY
    - MealName - NVARCHAR(255) NOT NULL
    - Calories - INT
    - Price - MONEY
    - IsVegetarian - BIT (NOTE: BIT represents a boolean value 1 (true) or 0 (false).)
    - SubscriptionLevel - NVARCHAR(50)
13. Insert 3 Meals into the Meals table.
14. Insert [these Meals](#) as well.
15. List the meal names of the first 5 Meals that are vegetarian. (Hint: In MS SQL, use 1 for True and 0 for False.)

16. Get all Meals sorted by Calories in descending order and then by Price in ascending order.
17. Update the Price of all Meals with SubscriptionLevel 'Premium' to increase by 5.00.
18. Calculate the average, max, and min of the Price in the Meals table.
19. Get all Meals that have a Price between 10.00 and 20.00. (Hint: research the BETWEEN keyword.)
20. BONUS: Add a new INT column named star_rating to Meals, initialized to NULL. (Hint: Use an ALTER TABLE Statement.)
21. Drop the Meals table.

Setup: Copy, paste, and run these SQL Statements:

```sql
CREATE TABLE Customers (
    UserID INT IDENTITY(1,1) PRIMARY KEY,
    FullName NVARCHAR(255) NOT NULL,
    Email NVARCHAR(255) NOT NULL UNIQUE,
    SubscriptionLevel NVARCHAR(50),
    SubscriptionStartDate DATE,
    SubscriptionEndDate DATE,
    State VARCHAR(100)
);

INSERT INTO Customers (FullName, Email, SubscriptionLevel, SubscriptionStartDate,
SubscriptionEndDate, State) VALUES
('Aisha Khan', 'aisha.khan@yahoo.com', 'Premium', '2024-01-01', '2024-12-31', 'NY'),
('Carlos Ramirez', 'carlos.ramirez@yahoo.com', 'Standard', '2024-01-10', '2024-12-31',
'CA'),
('Liam Brown', 'liam.brown@gmail.com', 'Premium', '2024-03-01', NULL, 'WA'),
('Sophia Chen', 'sophia.chen@umich.edu', 'Standard', '2024-02-15', NULL, 'WA'),
('Chad Murphy', 'chad.murphy@gmail.com', 'Premium', '2024-04-01', NULL, 'IL'),
('Siobhan Byrne', 'siobhan.byrne@gmail.com', 'Standard', '2024-04-01', NULL, 'MA'),
('Ashley Zahra', 'ashley.zahra@gmail.com', 'Premium', '2024-05-01', '2024-12-31', 'AZ'),
('Chris Miller', 'chris.miller@yahoo.com', 'Standard', '2024-06-01', NULL, 'WA'),
('Ravi Singh', 'ravi.singh@gmail.com', 'Premium', '2024-05-01', NULL, 'NY'),
('Emma Johnson', 'emma.johnson@gmail.com', 'Standard', '2024-06-01', NULL, 'IL'),
('Hiroshi Nakamura', 'hiroshi.nakamura@gmail.com', 'Premium', '2024-07-01', NULL, 'WA'),
('Isabella Rossi', 'isabella.rossi@gmail.com', 'Standard', '2024-01-01', '2024-05-01',
'CA'),
('Sean Connor', 'sean.connor@gmail.com', 'Premium', '2024-01-01', '2024-12-31', 'WA'),
('Brittney Kelly', 'brittney.kelly@gmail.com', 'Standard', '2024-01-15', NULL, 'IL'),
('Patrick Murphy', 'patrick.murphy@gmail.com', 'Premium', '2024-02-01', NULL, 'AZ'),
('Fiona Walsh', 'fiona.walsh@gmail.com', 'Standard', '2024-03-01', NULL, 'MA'),
('Anna Schmidt', 'anna.schmidt@gmail.com', 'Premium', '2024-04-01', '2024-12-31', 'IL'),
('Max Weber', 'max.weber@gmail.com', 'Standard', '2024-05-01', NULL, 'WA'),
('Greta Fischer', 'greta.fischer@gmail.com', 'Premium', '2024-06-01', '2025-05-31', 'WA'),
('Ahmed Al-Farsi', 'ahmed.alfarsi@gmail.com', 'Premium', '2024-07-01', '2024-12-31', 'AZ'),
('Maya Patel', 'maya.patel@gmail.com', 'Standard', '2024-01-20', NULL, 'CA'),
('Jacob Lee', 'jacob.lee@gmail.com', 'Premium', '2024-02-01', '2024-12-31', 'NY'),
```

```
('Olivia Nguyen', 'olivia.nguyen@msu.edu', 'Standard', '2024-03-01', NULL, 'WA'),
('James Davis', 'james.davis@yahoo.com', 'Premium', '2024-03-15', NULL, 'TX'),
('Emma Collins', 'emma.collins@gmail.com', 'Standard', '2024-04-01', NULL, 'CA'),
('Benjamin Clark', 'benjamin.clark@gmail.com', 'Premium', '2024-04-10', '2024-12-31', 'WA'),
('Sophia Gonzalez', 'sophia.gonzalez@gmail.com', 'Standard', '2024-05-01', NULL, 'NY'),
('Ethan Moore', 'ethan.moore@wmu.edu', 'Premium', '2024-05-15', NULL, 'IL'),
('Isabella Kim', 'isabella.kim@gmail.com', 'Standard', '2024-06-01', NULL, 'TX'),
('Lucas Brown', 'lucas.brown@gmail.com', 'Premium', '2024-06-15', NULL, 'NY'),
('Zoe Martinez', 'zoe.martinez@gmail.com', 'Standard', '2024-07-01', NULL, 'AZ'),
('Oliver White', 'oliver.white@gmail.com', 'Premium', '2024-07-15', NULL, 'WA'),
('Lily Adams', 'lily.adams@gmail.com', 'Standard', '2024-08-01', NULL, 'NY'),
('Mason Turner', 'mason.turner@yahoo.com', 'Premium', '2024-08-15', NULL, 'IL'),
('Ava Robinson', 'ava.robinson@gmail.com', 'Standard', '2024-09-01', '2025-09-01', 'TX'),
('Jackson Lewis', 'jackson.lewis@yahoo.com', 'Premium', '2024-09-15', '2024-12-31', 'NY'),
('Mia Johnson', 'mia.johnson@gmail.com', 'Standard', '2024-10-01', NULL, 'WA'),
('Henry Walker', 'henry.walker@gmail.com', 'Premium', '2024-10-15', NULL, 'AZ'),
('Charlotte Hall', 'charlotte.hall@gmail.com', 'Standard', '2024-11-01', NULL, 'NY'),
('Daniel Young', 'daniel.young@yahoo.com', 'Premium', '2024-11-15', NULL, 'IL');
```

Additional Meals (wait to do this until question #14):

```
INSERT INTO Meals (MealName, Calories, Price, IsVegetarian, SubscriptionLevel) VALUES
('Truffle Risotto', 700, 25.00, 0, 'Premium'), ('Lobster Mac & Cheese', 900, 28.00, 0,
'Premium'), ('Vegetable Quiche', 500, 11.00, 1, 'Standard'), ('Roasted Duck Breast', 700,
22.50, 0, 'Premium'), ('Mushroom Stroganoff', 500, 12.00, 1, 'Standard'), ('Filet Mignon',
700, 30.00, 0, 'Premium'), ('Greek Salad', 500, 9.00, 1, 'Standard'), ('Wild Mushroom Soup',
500, 14.00, 1, 'Premium'), ('Chicken Parmesan', 700, 13.50, 0, 'Standard'), ('Seafood
Paella', 900, 26.00, 0, 'Premium');
```

**Note on deleting data

In the real world, we typically avoid deleting data permanently. It would be better to mark subscriptions as inactive so that we still have it on record or in case they ever want to resubscribe again. But we'll still use this example to practice using the delete statement.