SQL ASSIGNMENT 3

Dataset: Jomato

About the dataset:

You work for a data analytics company, and your client is a food delivery platform similar to Jomato. They have provided you with a dataset containing information about various restaurants in a city. Your task is to analyze this dataset using SQL queries to extract valuable insights and generate reports for your client

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-- Assignment 3

-- Tasks Performed:


-- 1. Create a stored procedure to display the restaurant name, type and cuisine where
the table booking is not zero.


IF OBJECT_ID('GetRestaurantsWithTableBooking', 'P') IS NOT NULL
    DROP PROCEDURE GetRestaurantsWithTableBooking;


CREATE PROCEDURE GetRestaurantsWithTableBooking
AS
BEGIN
    -- Display restaurant name, type, and cuisine where table booking is either 'Yes' or
'No'
    SELECT
        RestaurantName,
        RestaurantType,
        CuisinesType
    FROM
        Jomato$
    WHERE
        TableBooking IN ('Yes', 'No');
END;


CREATE PROCEDURE GetRestaurantsWithTableBooking
AS
BEGIN
    -- Display restaurant name, type, and cuisine with converted TableBooking values
    SELECT
        RestaurantName,
        RestaurantType,
        CuisinesType,
        CASE
            WHEN TableBooking = 'Yes' THEN 1
            WHEN TableBooking = 'No' THEN 0
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            ELSE NULL  -- Handle any other cases if needed
        END AS ConvertedTableBooking
    FROM
        Jomato$;
END;

EXEC GetRestaurantsWithTableBooking;


CREATE PROCEDURE GetRestaurantsWithTableBooking
AS
BEGIN
    -- Display restaurant name, type, and cuisine where table booking is 'Yes' (1)
    SELECT
        RestaurantName,
        RestaurantType,
        CuisinesType
    FROM
        Jomato$
    WHERE
        CASE
            WHEN TableBooking = 'Yes' THEN 1
            ELSE 0
        END <> 0;
END;

-- 2. Create a transaction and update the cuisine type ‘Cafe’ to ‘Cafeteria’. Check the
result and rollback it.


-- Start the transaction
BEGIN TRANSACTION;

-- Update the cuisine type 'Cafe' to 'Cafeteria'
UPDATE Jomato$
SET CuisinesType = 'Cafeteria'
WHERE CuisinesType = 'Cafe';

-- Commit the transaction (or rollback to undo the changes)
-- Uncomment either COMMIT or ROLLBACK as needed

-- COMMIT;
-- ROLLBACK;

-- Check the updated data
SELECT * FROM Jomato;

-- End the transaction
COMMIT;


-- 3. Generate a row number column and find the top 5 areas with the highest rating of
restaurants.

WITH RankedRestaurants AS (
    SELECT
        Area,
        RestaurantName,
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        Rating,
        ROW_NUMBER() OVER (PARTITION BY Area ORDER BY Rating DESC) AS RowNum
    FROM
        Jomato$
)
SELECT
    Area,
    RestaurantName,
    Rating
FROM
    RankedRestaurants
WHERE
    RowNum <= 5;

-- 4. Use the while loop to display the 1 to 50.

DECLARE @Counter INT = 1;

WHILE @Counter <= 50
BEGIN
    PRINT @Counter;
    SET @Counter = @Counter + 1;
END;

-- 5. Write a query to Create a Top rating view to store the generated top 5 highest
rating of restaurants.

CREATE VIEW TopRatingView AS
WITH RankedRestaurants AS (
    SELECT
        Area,
        RestaurantName,
        Rating,
        ROW_NUMBER() OVER (PARTITION BY Area ORDER BY Rating DESC) AS RowNum
    FROM
        Jomato$
)
SELECT
    Area,
    RestaurantName,
    Rating
FROM
    RankedRestaurants
WHERE
    RowNum <= 5;


SELECT * FROM TopRatingView;

-- 6. Write a trigger that sends an email notification to the restaurant owner whenever a
new record is inserted.

CREATE TRIGGER trgAfterInsert
ON Jomato$
AFTER INSERT
AS
BEGIN
    SET NOCOUNT ON;
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    DECLARE @RestaurantName NVARCHAR(255);

    -- Assuming the restaurant owner's email is stored in the 'EmailAddress' column
    DECLARE @EmailAddress NVARCHAR(255);

    SELECT
        @RestaurantName = i.RestaurantName,
        @EmailAddress = i.EmailAddress  -- Adjust this column name based on your schema
    FROM
        inserted i;

    -- Send email notification
    EXEC msdb.dbo.sp_send_dbmail
        @profile_name = 'YourMailProfile',  -- Replace with your mail profile name
        @recipients = @EmailAddress,
        @subject = 'New Restaurant Record Inserted',
        @body = 'A new record has been inserted for the restaurant: ' + @RestaurantName;
END;


CREATE TRIGGER trgAfterInsert
ON Jomato$
AFTER INSERT
AS
BEGIN
    SET NOCOUNT ON;

    DECLARE @RestaurantName NVARCHAR(255);
    DECLARE @EmailAddress NVARCHAR(255);

    SELECT
        @RestaurantName = i.RestaurantName,
        @EmailAddress = i.EmailAddress
    FROM
        inserted i;

    -- Send email notification
    DECLARE @Subject NVARCHAR(255) = 'New Restaurant Record Inserted';
    DECLARE @Body NVARCHAR(MAX) = 'A new record has been inserted for the restaurant: ' +
@RestaurantName;

    EXEC msdb.dbo.sp_send_dbmail
        @profile_name = 'YourMailProfile',  -- Replace with your mail profile name
        @recipients = @EmailAddress,
        @subject = @Subject,
        @body = @Body;
END;


ALTER TABLE Jomato$ ADD EmailAddress NVARCHAR(255);
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