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.

Tasks to be performed:

1. **Create a user-defined functions to stuff the Chicken into 'Quick Bites'. Eg: 'Quick Chicken Bites'.**

- ```
  Create Function StuffChickenIntoWord(@word varchar(200))
  Returns varchar(100)
  As Begin
  Declare @result nvarchar(300)
  Set @result = 'Quick '+@word + ' Bites'
  Return @result
  End

  Select dbo.StuffChickenIntoWord('Chicken') as Result
  ```

	Result
1	Quick Chicken Bites

2. **Use the function to display the restaurant name and cuisine type which has the maximum number of rating.**

- ```
  Create Function Max_Rating()
  Returns Table
  As
  Return
  Select RestaurantName,CuisinesType,Rating
  From Jomato Where Rating in (Select Max(Rating) From Jomato)

  Select * From Max_Rating()
  ```

Results Messages

	RestaurantName	CuisinesType	Rating
1	Asia Kitchen By Mainland China	Asian, Chinese, Thai, Momos	4.90000009536743
2	Byg Brewski Brewing Company	Continental, North Indian, Italian, South India...	4.90000009536743
3	Sant?de?ed??ede??d??ede?ed???de??d??ede?ed??ede?...	Healthy Food, Salad, Mediterranean	4.90000009536743

3. **Create a Rating Status column to display the rating as 'Excellent' if it has more the 4 start rating, 'Good' if it has above 3.5 and below 5 star rating, 'Average' if it is above 3 and below 3.5 and 'Bad' if it is below 3 star rating.**

- ```
  Select *,
  Case When Rating > 4 Then 'Excellent'
  When Rating >= 3.5 Then 'Good'
  When Rating >= 3 Then 'Average'
  Else 'Bad'
  End As Rating_Status
  From Jomato
  Order By Rating Desc
  ```

Results Messages

	ng	CuisinesType	Area	LocalAddress	Delivery_time	Rating_Status
868		American, Continental, Chinese	Koramangala 4th Block	Koramangala 4th Block	94	Excellent
869		Modern Indian, North Indian, Pizza, Continen...	Brigade Road	Shanti Nagar	68	Excellent
870		Continental, Asian, North Indian, South Indian	Brigade Road	Ulsoor	74	Excellent
871		Biryani, Chinese, Kebab	Banashankari	Banashankari	38	Excellent
872		Cafe, Salad, Wraps, Beverages	Jayanagar	Jayanagar	75	Excellent
873		Cafe	Brigade Road	Richmond Road	31	Good
874		Cafe	Lavelle Road	Richmond Road	41	Good
875		Bakery, Desserts	Banashankari	Banashankari	62	Good
876		South Indian, Coffee	Kalyan Nagar	Banaswadi	42	Good
877		Cafe, Bakery, Beverages, Burger, Continental	Brigade Road	Brigade Road	37	Good

4. **Find the Ceil, floor and absolute values of the rating column and display the current date and separately display the year, month_name and day.**

- ```
  Select CEILING(Rating) As Ceil_Value,
  FLOOR(Rating) As Floor_Value, ABS(Rating) As Absolute_Value
  From Jomato
  ```

Results Messages

	Ceil_Value	Floor_Value	Absolute_Value
1	4	3	3.90000009536743
2	4	3	3.70000004768372
3	3	2	2.70000004768372
4	3	2	2.79999995231628
5	4	3	3.40000009536743
6	5	4	4.09999990463257
7	3	2	2.79999995231628
8	4	3	3.20000004768372
9	4	3	3.70000004768372
10	4	3	3.5
11	5	4	4.40000009536743

- ```
  Select GETDATE() As Date,Year(GETDATE()) As Year,
  DATENAME(Month,GETDATE()) As Month,
  Day(GETDATE()) As Day
  ```

	Date	Year	Month	Day
1	2024-01-23 01:12:54.190	2024	January	23
  ```

5. Display the restaurant type and total average cost using rollup.

- ```
  Select
  Case When GROUPING(RestaurantType) = 1 Then 'Grand Total'
  When GROUPING(AverageCost) = 1 Then 'Sub Total'
  Else RestaurantType End As RestaurantType,
  Isnull(Sum(AverageCost),0) As Sub_Total
  From Jomato
  Group By
  Rollup(RestaurantType,AverageCost)
  ```

	RestaurantType	Sub_Total
10	Bakery	11500
11	Bakery	560
12	Bakery	4800
13	Bakery	750
14	Bakery	800
15	Bakery	900
16	Sub Total	53770
17	Bakery, Bever...	250
18	Sub Total	250
19	Bakery, Cafe	350
20	Bakery, Cafe	800
21	Bakery, Cafe	450
22	Bakery, Cafe	500
23	Bakery, Cafe	600
24	Bakery, Cafe	1400
25	Sub Total	4100
26	Bakery, Desse...	100
27	Bakery, Desse...	150
28	Bakery, Desse...	400
29	Bakery, Desse...	250
30	Bakery, Desse...	900
31	Bakery, Desse...	1200
32	Bakery, Desse...	1000
33	Bakery, Desse...	1200
34	Sub Total	5200
  ```

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Tasks to be performed:

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

- ```
  Create Proc sp_rstrname
  As Begin
  Select RestaurantName,CuisinesType
  From Jomato Where TableBooking > 0
  End

  Exec sp_rstrname
  ```

Results | Messages

	RestaurantName	CuisinesType
1	1131 Bar + Kitchen	Continental, Asian, Italian, North Indian
2	12th Main - Grand Mercure	European, Asian
3	154 Breakfast Club	Cafe, Continental
4	1722 Urban Bistro	North Indian, Chinese, Fast Food, Biryani
5	States	North Indian, Chinese, Continental
6	1Q1	Asian, Japanese, Thai, Malaysian, Vietnamese, Ko...
7	20 Char - Sterlings MAC Hotel	Chinese, Continental, North Indian, South Indian, ...
8	20 Feet High	American, Continental, Steak, Salad
9	24/7 - The Lalit Ashok Bangalore	Continental, North Indian, Italian, Chinese
10	24@43 - The Oterra	North Indian, Asian, Continental
11	24th Main	North Indian, South Indian, Chinese
12	3B's - Buddies, Bar & Barbecues	North Indian, Mediterranean, European, BBQ
13	3G's - Gulp & Groove	Finger Food, Continental, Chinese
14	4 Seasons Restaurant	North Indian, Seafood, Middle Eastern, Chinese
15	46 Ounces Brewgarden	Bar Food, Finger Food, Pizza
16	55 Wall Street	Finger Food, North Indian, Chinese
17	70 Brigade - Iris Hotel	Chinese, North Indian, Pizza
18	AB's - Absolute Barbecues	European, Mediterranean, North Indian, BBQ
19	Agent Jack's Bar	Continental, North Indian, Italian
20	Aioli	Mediterranean, Continental, Italian, Salad
21	Ajwa Thalassery Biryani	Biryani, South Indian
22	Akkad Bakkad	North Indian, Chinese
23	Akss - India Reimagined	Modern Indian, North Indian
24	Alba - JW Marriott Bengaluru	Italian
25	Alchemy - The Chancery Pavilion	Modern Indian
  ```

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

- Begin Transaction

  Update Jomato Set CuisinesType = 'Cafeteria'

  Select * From Jomato Where CuisinesType = 'Cafeteria'

  Rollback

Results Messages

	Id	RestaurantName	RestaurantType	Rating	No_of_Rating	AverageCost	OnlineOrder	TableBooking	CuisinesType
1		L-81 Cafe	Quick Bites	3.90000009536743	48	400	1	0	Cafeteria
2		refuel	Cafe	3.70000004768372	37	400	1	0	Cafeteria
3		Biryani Central	Casual Dining	2.70000004768372	135	550	1	0	Cafeteria
4		The Bbq	Casual Dining	2.79999995231628	40	700	1	0	Cafeteria
5		The Bbq	Takeaway, Delivery	3.40000009536743	37	200	0	0	Cafeteria
6		Italy	Casual Dining	4.09999990463257	305	700	1	0	Cafeteria
7		North Parontha Hut	Takeaway, Delivery	2.79999995231628	40	300	0	0	Cafeteria
8		1000 B.C	Quick Bites	3.20000004768372	49	300	1	0	Cafeteria
9		1Q1	Casual Dining	3.70000004768372	41	450	0	0	Cafeteria
10		11 to 11 Express ...	Quick Bites	3.5	22	300	1	0	Cafeteria
11		1131 Bar + Kitchen	Bar, Casual Dining	4.40000009536743	2861	1500	0	1	Cafeteria
12		12th Main - Gran...	Fine Dining	4.09999990463257	353	2000	0	1	Cafeteria
13		1441 Pizzeria	Casual Dining	4.09999990463257	119	800	1	0	Cafeteria
14		1522 - The Pub	Pub	4.19999980926514	1731	1400	1	0	Cafeteria
15		154 Breakfast Club	Cafe	4	1509	900	1	1	Cafeteria
16		1722 Urban Bistro	Casual Dining	4.09999990463257	218	600	1	1	Cafeteria
17		18+ Ice Cafe	Cafe	3.5	24	550	0	0	Cafeteria
18		States	Casual Dining	3.90000009536743	620	1000	0	1	Cafeteria

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

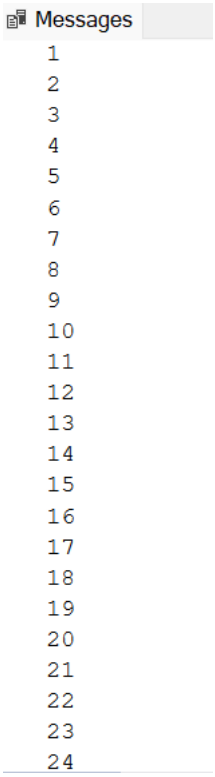
- With Rating As
  (
  Select distinct(Area),Rating From Jomato
)

  Select Top 5 Area From Rating Order By Rating Desc

	Area
1	Bellandur
2	Old Airport Road
3	Byresandra,Tavarekere,Madiwala
4	Malleshwaram
5	Indiranagar

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

- ```
  Declare @val int = 1
  While @val <=50
  Begin
  Print @val
  Set @val = @val + 1
  End
  ```



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

- ```
  Create View Top5Restr
  As
  With Rating As
  (
  Select distinct(Area),Rating From Jomato
  )

  Select Top 5 Area From Rating Order By Rating Desc

  Select * From Top5Restr
  ```

Results | Messages

	Area
1	Bellandur
2	Old Airport Road
3	Byresandra,Tavarekere,Madiwala
4	Malleshwaram
5	Indiranagar

6. Create a trigger that give an message whenever a new record is inserted.

- ```
  Create Trigger Tr_Insert
  On Jomato
  For Insert
  As
  Begin
  Declare @Id int
  Select @Id = OrderId From Jomato
  Insert into Tr_Msg (Message)
  Values('New Item Added At '+cast(GETDATE()as Varchar(20))+' Id Number Is '
  +cast(@Id as Varchar(20)))
  End

  insert into Jomato Values(8000,'Malabar Dines','Dining',2,100,1000,50,10,
  'Fast Food','Mahipalpur','Mahipalpur',60)

  Select * From Tr_Msg
  ```

Results | Messages

	Id	Message
1	6	New Item Added At Jan 23 2024 3:37AM Id Number ...
  ```