

SQL Code

```
1  --select * from swiggy_Data
2  --SWIGGY DATA ANALYSIS
3
4  --DATA CLEANING ABD VALIDATION
5  --NULL CHECK
6  SELECT *
7  FROM swiggy_data
8  where state is null
9  or city is null
10 or order_date is null
11 or restaurant_name is null
12 or location is null
13 or category is null
14 or dish_name is null
15 or price_inr is null
16 or rating is null
17 or rating_count is null ;
18
19 --BLANK OR EMPTY STRINGS
20
21 SELECT *
22 FROM swiggy_data
23 where state = ''
24 or city = ''
25 or restaurant_name = ''
26 or location = ''
27 or category= ''
28 or dish_name= ''
29
30 --DUPLICATE DETECTION
31
32 select
33     state,city,order_date,restaurant_name,location,category,dish_name,price_inr,ratin
g,rating_count,count(*) as duplicate_value
34     from swiggy_data
35     group by state,city,order_date,restaurant_name,location,category,dish_name,price_
inr,rating,rating_count having count(*)>1;
36
37     -- DELETE DUPLICATES
38
39     with cte as
40     ( select *,row_number() over(partition by state,city,order_date,restaurant_nam
e,location,category,dish_name,price_inr,rating,rating_count
41         order by (select null)) as t
42         from swiggy_data )
43     delete from cte where t>1
44
45     --CREATING SCHEMA
46
47     --DIMENSION TABLES
48     --DATE TABLE
49     drop table dim_date
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50      create table dim_date
51          (date_id int identity(1,1) primary key,
52           full_date date,
53           year INT,
54           month INT,
55           monthname varchar(20),
56           quater INT,
57           day INT,
58           week INT
59      )
60
61      --DIMENSION LOCATION
62      drop table dim_location
63      create table dim_location
64          (location_id int identity(1,1) primary key,
65           state VARCHAR(50),
66           city VARCHAR(50),
67           location VARCHAR(200)
68      )
69
70      --DIMENSION CATEGORY
71      drop table dim_category
72      create table dim_category
73          ( category_id int identity(1,1) primary key ,
74           category varchar(200)
75      )
76      --DIMENSION RESTAURANT
77      drop table dim_restaurant
78      create table dim_restaurant
79          ( restaurant_id int identity(1,1) primary key ,
80           restaurant_name varchar(200)
81      )
82
83      --DIMENSION DISH
84      drop table dim_dish
85      create table dim_dish
86          (dish_id int identity(1,1) primary key,
87           dish_name varchar(200)
88      )
89      --FACT TABLE
90      drop table fact_swiggy_orders
91      create table fact_swiggy_orders
92      (
93          order_id int identity(1,1) primary key,
94          date_id int ,
95          price_inr decimal(10,2),
96          rating decimal (4,2),
97          rating_count int,
98          location_id int,
99          restaurant_id int,
100         category_id int,
101         dish_id int,
102
103        foreign key(date_id) references dim_date(date_id),
104        foreign key( location_id) references dim_location(location_id),

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105  foreign key(restaurant_id) references dim_restaurant(restaurant_id),
106  foreign key(category_id) references dim_category(category_id)
107 );
108
109 -- INSERT DATA INTO TABLES
110
111 --dim_date
112
113 insert into dim_date
114 select distinct
115 order_date,
116 year(order_date),
117 month(order_date),
118 datename(month,order_date),
119 datepart(quarter, order_date),
120 day(order_date),
121 datepart(week,order_date)
122 from swiggy_data
123 where order_date is not null;
124 select * from dim_date
125
126 -- dim_location
127
128 insert into dim_location (state,city,location)
129 select distinct state,city, location
130 from swiggy_data;
131
132 select * from dim_location
133
134 -- dim_category
135
136 insert into dim_category
137 select distinct
138 category
139 from swiggy_data;
140 select * from dim_category
141
142 --dim restaurant
143
144 insert into dim_restaurant
145 select distinct
146 restaurant_name
147 from swiggy_data
148 select * from dim_restaurant
149
150 --dim_dish
151
152 insert into dim_dish
153 select distinct
154 dish_name
155 from swiggy_data;
156 select * from dim_dish
157 -- fact_table
158 insert into fact_swiggy_orders
159 (date_id ,

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160     price_inr ,
161     rating,
162     rating_count,
163     location_id ,
164     restaurant_id,
165     category_id,
166     dish_id)
167     select distinct
168     dd.date_id,
169     s.price_inr,
170     s.Rating,
171     s.rating_count,
172     dl.location_id,
173     dr.restaurant_id,
174     dc.category_id,
175     dsh.dish_id
176     from swiggy_data s
177     join dim_date dd on dd.full_date = s.order_date
178     join dim_location dl on dl.state= s.state and dl.city=s.city and dl.location=s.location
179     join dim_restaurant dr on dr.restaurant_name = s.restaurant_name
180     join dim_category dc on dc.category =s.category
181     join dim_dish dsh on dsh.dish_name = s.dish_name;
182
183     select * from fact_swiggy_orders f
184     join dim_date d on f.date_id = d.date_id
185     join dim_location l on f.location_id = l.location_id
186     join dim_restaurant r on f.restaurant_id = r.restaurant_id
187     join dim_category c on f.category_id = c.category_id
188     join dim_dish dl on f.dish_id = dl.dish_id
189
190     -- KPI DEVELOPMENT
191     select * from fact_swiggy_orders
192     --TOTAL ORDERS
193
194     select
195     count(order_id) as total_orders
196     from fact_swiggy_orders
197
198     --Total Revenue (INR Million)
199
200     select
201     cast(cast(sum(price_inr) /1000000 as decimal(20,2))as varchar(20)) + ' '+ 'INR MILLION' as total_revenue
202     from fact_swiggy_orders
203
204
205     --Average Dish Price
206
207     select
208     cast(cast(avg(price_inr)  as decimal(20,2))as varchar(20)) + ' INR' as avg_dish_price
209     from fact_swiggy_orders
210
211     --Average Rating

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212 select
213 cast(avg(rating) as decimal(10,2)) as avg_rating
214 from fact_swiggy_orders
215
216 --DEEP-DIVE BUSINESS ANALYSIS
217
218 --DATE BASED ANALYSIS
219
220 --Monthly order trends
221 select
222 d.year,
223 d.month,
224 d.monthname,
225 count(*) as total_orders
226 from fact_swiggy_orders f
227 join dim_date d on f.date_id= d.date_id
228 group by
229 d.year ,
230 d.month ,
231 d.monthname
232 order by count(*) desc
233
234
235
236 --Quarterly orders
237
238 select
239 d.year ,
240 d.quater,
241 count(*) as qua_total_orders
242 from fact_swiggy_orders f
243 join dim_date d on d.date_id = f.date_id
244 group by d.year,d.quater
245 order by count(*) desc
246
247
248 --Yearly Orders
249
250 select
251 d.year ,
252 count(*) as year_total_orders
253 from fact_swiggy_orders f
254 join dim_date d on d.date_id = f.date_id
255 group by d.year,d.quater
256 order by count(*) desc
257
258
259 --Order by day of week ( MON-SUN)
260
261 select
262 datename(weekday,d.full_date) as day_name ,
263 count(*) as week_total_orders
264 from fact_swiggy_orders f
265 join dim_date d on d.date_id = f.date_id
266 group by datename(weekday,d.full_date)

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267     order by count(*) desc
268
269
270 --LOCATION BASED ANALYSIS
271
272 --Top 10 cities by order volume
273
274 select top 10
275     c.city,
276     count(*)
277     from fact_swiggy_orders f
278     join dim_location c on c.location_id = f.location_id
279     group by c.city
280     order by count(*) desc
281
282 --Revenue contribution by states
283
284 select
285     l.state,
286     sum(f.price_inr) as state_revenue from fact_swiggy_orders f
287     join dim_location l on l.location_id = f.location_id
288     group by l.state
289     order by sum(f.price_inr) desc
290
291 --FOOD PERFORMANCE
292
293 --Top 10 restaurants by orders
294
295 select top 10
296     r.restaurant_name ,
297     sum(price_inr) as top_res_sales from fact_swiggy_orders f
298     join dim_restaurant r on r.restaurant_id = f.restaurant_id
299     group by r.restaurant_name
300     order by sum(price_inr) desc
301
302 --Top categories (Indian, Chinese, etc.)
303
304 select top 10
305     c.category ,
306     count(*) as top_cat_sales from fact_swiggy_orders f
307     join dim_category c on c.category_id = f.category_id
308     group by c.category
309     order by count(*) desc
310
311
312 --Most ordered dishes
313 select top 10
314     d.dish_name ,
315     count(*) as top_ord_dish from fact_swiggy_orders f
316     join dim_dish d on d.dish_id = f.dish_id
317     group by d.dish_name
318     order by count(*) desc
319
320 --Cuisine performance ? Orders + Avg Rating
321

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322 select
323 c.category ,
324 count(*) as total_orders,
325 avg(f.rating) as avg_rating
326 from fact_swiggy_orders f
327 join dim_category c on c.category_id = f.category_id
328 group by c.category
329 order by total_orders desc
330
331 --CUSTOMERS SPENDING INSIGHTS
332
333 /*Buckets of customer spend:
334 Under 100
335 100?199
336 200?299
337 300?499
338 500+
339 With total order distribution across these ranges. */
340
341 select
342
343 case
344     when price_inr <100 then 'under 100'
345     when price_inr between 100 and 199 then '100-199'
346     when price_inr between 200 and 299 then '299-400'
347     when price_inr between 300 and 499 then '300-499'
348     else '500+'
349 end as price_range,
350
351 count(*) as total_orders from fact_swiggy_orders
352 group by
353     case
354         when price_inr<100 then 'under 100'
355         when price_inr between 100 and 199 then '100-199'
356         when price_inr between 200 and 299 then '299-400'
357         when price_inr between 300 and 499 then '300-499'
358         else '500+'
359     end
360 order by price_range
361
362
363 --RATING ANALYSIS
364
365 --Distribution of dish ratings from 1-?5.
366 select
367 rating,
368 count(*) as rating_count
369 from fact_swiggy_orders
370 group by rating
371 order by count(*) desc
372

```