

## SQL Code

```
1  --select * from swiggy_Data
2  --SWIGGY DATA ANALYSIS
3
4  --DATA CLEANING AND 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,rating,
34     rating_count,count(*) as duplicate_value
35     from swiggy_data
36     group by state,city,order_date,restaurant_name,location,category,dish_name,price_
37     inr,rating,rating_count having count(*)>1;
38
39 -- DELETE DUPLICATES
40
41 with cte as
42 ( select *,row_number() over(partition by state,city,order_date,restaurant_name,location,category,dish_name,price_inr,rating,rating_count
43     order by (select null)) as t
44     from swiggy_data )
45 delete from cte where t>1
46
47 --CREATING SCHEMA
48
49 --DIMENSION TABLES
50 --DATE TABLE
51 drop table dim_date
```

```

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),

```

```

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 ,

```

```

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.loca
tion
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 MILL
ION' 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_pri
ce
209 from fact_swiggy_orders
210
211 --Average Rating

```

```

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)

```

```

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

```

```

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

```