ALL SQL CODES - CodeX Energy Drink Project

A. Who prefers energy drink more? (male/female/non-binary?)

```sql
SELECT gender, count(*) AS respondents_count
FROM dim_respondents
GROUP BY gender
ORDER BY respondents_count DESC;
```

gender	Respondents_count
Male	6038
Female	3455
Non-binary	507

B. Which age group prefers energy drinks more?

```sql
SELECT age, count(*) AS Respondents_count
FROM dim_respondents
GROUP BY age
ORDER BY Respondents_count DESC;
```

age	Respondents_count
19-30	5520
31-45	2376
15-18	1488
46-65	426
65+	190

C.Which type of marketing reaches the most Youth (15-30)?

- ```sql
  SELECT fsr.marketing_channels, count(*) AS youth_count
  FROM dim_respondents dr
  JOIN fact_survey_responses fsr
  ON dr.Respondent_ID = fsr.Respondent_ID
  WHERE dr.age IN ('15-18' , '19-30')
  GROUP BY fsr.marketing_channels
  ORDER BY youth_count DESC;
  ```

marketing_channels	youth_count
Online ads	3373
TV commercials	1785
Other	702
Outdoor billboards	702
Print media	446

D. What are the preferred/expected ingredients of energy drinks among respondents?

```sql
SELECT Ingredients_expected AS Preffered_ingredients,
count(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Preffered_ingredients
ORDER BY Respondent_count DESC;
```

Preffered_ingredients	Respondent_count
Caffeine	3896
Vitamins	2534
Sugar	2017
Guarana	1553

E. What packaging preferences do respondents have for energy drinks?

```sql
SELECT packaging_preference,
count(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Packaging_preference
ORDER BY Respondent_count DESC;
```

packaging_preference	Respondent_count
Compact and portable cans	3984
Innovative bottle design	3047
Collectible packaging	1501
Eco-friendly design	983
Other	485

F. Who are the current market leaders?

```sql
SELECT current_brands,
COUNT(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY current_brands
ORDER BY Respondent_count DESC;
```

current_brands	Respondent_count
Cola-Coka	2538
Bepsi	2112
Gangster	1854
Blue Bull	1058
CodeX	980
Sky 9	979
Others	479

G. What are the primary reasons consumers prefer those brands over ours?

```sql
SELECT Reasons_for_choosing_brands,
COUNT(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Reasons_for_choosing_brands
ORDER BY Respondent_count DESC;
```

Reasons_for_choosing_brands	Respondent_count
Brand reputation	2652
Taste/flavor preference	2011
Availability	1910
Effectiveness	1748
Other	1679

H. How effective are different marketing strategies and channels in reaching our customers?

```sql
SELECT
  marketing_channels,
  COUNT(*) AS total_reached,
  SUM(CASE WHEN heard_before = 'Yes' THEN 1 ELSE 0 END) AS heard_count,
  SUM(CASE WHEN tried_before = 'Yes' THEN 1 ELSE 0 END) AS tried_count
FROM fact_survey_responses
GROUP BY marketing_channels
ORDER BY total_reached DESC;
```

marketing_channels	total_Reached	heard_count	tried_count
Online ads	4020	1805	2074
TV commercials	2688	1257	961
Outdoor billboards	1226	524	640
Other	1225	490	756
Print media	841	371	450

I. What do people think about our brand? (overall rating)

```
WITH CTE_HEARD AS
(SELECT Brand_perception, COUNT(*) as Respondent_count
FROM fact_survey_responses
WHERE Heard_before = 'Yes'
GROUP BY Brand_perception),
Total AS
(SELECT COUNT(*) AS total_heard
from fact_survey_responses
WHERE Heard_before = 'Yes')
SELECT
h.Brand_perception,
h.Respondent_count,
ROUND((h.respondent_count * 100)/ t.total_heard, 1) AS percentage
FROM CTE_HEARD h, Total t
ORDER BY percentage desc;
```

taste_experience	Respondent_count	percentage
1	209	10.3
2	300	14.8
3	620	30.6
4	511	25.2
5	386	19.1

```
WITH CTE_taste AS (
SELECT Taste_experience,
COUNT(*) AS Respondent_count
FROM fact_survey_responses
WHERE Heard_before = 'Yes' AND Tried_before = 'Yes'
GROUP BY Taste_experience),
TOTAL AS (
SELECT COUNT(*) AS Total_heard_and_tasted
FROM fact_survey_responses
WHERE Heard_before = 'Yes' AND Tried_before = 'Yes')
SELECT
t.taste_experience,
t.Respondent_count,
ROUND((t.Respondent_count * 100)/ o.Total_heard_and_tasted, 1) AS percentage
FROM CTE_TASTE t, TOTAL o
ORDER BY Taste_experience;
```

Brand_perception	Respondent_count	percentage
Neutral	2561	57.6
Positive	1079	24.3
Negative	807	18.1

J. Which cities do we need to focus more on?

```sql
SELECT
dc.City,
dc.Tier,
count(*) AS Respondent_count,
SUM(CASE WHEN Heard_before = 'Yes' THEN 1 ELSE 0 END) AS Awareness,
ROUND(SUM(CASE WHEN fsr.Heard_before = 'Yes' THEN 1 ELSE 0 END)*100 / COUNT(*) ,1) AS Awareness_pct_within_city
FROM fact_survey_responses fsr
JOIN dim_respondents dr
ON fsr.Respondent_ID = dr.Respondent_ID
JOIN dim_cities dc
ON dc.City_ID = dr.City_ID
GROUP BY dc.City_ID, dc.Tier
ORDER BY Respondent_count desc;
```

City	Tier	Respondent_count	Awareness	Awareness_pct_within_city
Bangalore	Tier 1	2828	1158	40.9
Hyderabad	Tier 1	1833	728	39.7
Mumbai	Tier 1	1510	899	59.5
Chennai	Tier 1	937	372	39.7
Pune	Tier 2	906	377	41.6
Kolkata	Tier 2	566	210	37.1
Ahmedabad	Tier 2	456	207	45.4
Delhi	Tier 1	429	267	62.2
Jaipur	Tier 2	360	144	40.0
Lucknow	Tier 2	175	85	48.6

K. Where do respondents prefer to purchase energy drinks?

```sql
SELECT purchase_location, COUNT(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Purchase_location;
```

purchase_location	Respondent_count
Supermarkets	4494
Online retailers	2550
Gyms and fitness centers	1464
Other	679
Local stores	813

L. What factors influence respondents' purchase decisions, such as price range and limited-edition packaging?

```sql
SELECT price_range, count(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Price_range;
```

price_range	Respondent_count
50-99	4288
100-150	3142
Above 150	1561
Below 50	1009

```sql
select Limited_edition_packaging, count(*) as Respondent_count
FROM fact_survey_responses
group by Limited_edition_packaging
order by Respondent_count desc;
```

Limited_edition_packaging	Respondent_count
No	4023
Yes	3946
Not Sure	2031

M. What immediate improvements can we bring to the product?

```sql
SELECT Ingredients_expected, count(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Ingredients_expected
ORDER BY Respondent_count DESC;

SELECT Improvements_desired, count(*) AS Respondent_count
FROM fact_survey_responses
GROUP BY Improvements_desired
ORDER BY Respondent_count DESC;
```

Ingredients_expected	Respondent_count
Caffeine	3896
Vitamins	2534
Sugar	2017
Guarana	1553

Improvements_desired	Respondent_count
Reduced sugar content	2995
More natural ingredients	2498
Wider range of flavors	2037
Healthier alternatives	1472
Other	998