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International Breweries Data set
Profit-Brand-and-Country-
Analysis



Analysing Data With Visuals

From the international breweries data recorded for a duration of three years, you are directed to do the following analyses to aid better decision making in order to maximize profit and reduce loss to the lowest minimum.

Section A

PROFIT ANALYSIS

1. Within the space of the last three years, what was the profit worth of the breweries, inclusive of the anglophone and the francophone territories?
2. Compare the total profit between these two territories in order for the territory manager, Mr. Stone made a strategic decision that will aid profit maximization in 2020.
3. Country that generated the highest profit in 2019
4. Help him find the year with the highest profit.
5. Which month in the three years was the least profit generated?
6. What was the minimum profit in the month of December 2018?
7. Compare the profit in percentage for each of the month in 2019
8. Which particular brand generated the highest profit in Senegal?

Section B

BRAND ANALYSIS

1. Within the last two years, the brand manager wants to know the top three brands consumed in the francophone countries
2. Find out the top two choice of consumer brands in Ghana
3. Find out the details of beers consumed in the past three years in the most oil reached country in West Africa.
4. Favorites malt brand in Anglophone region between 2018 and 2019
5. Which brands sold the highest in 2019 in Nigeria?
6. Favorites brand in South South region in Nigeria
7. Bear consumption in Nigeria
8. Level of consumption of Budweiser in the regions in Nigeria
9. Level of consumption of Budweiser in the regions in Nigeria in 2019 (Decision on Promo)

Section C

COUNTRIES ANALYSIS

1. Country with the highest consumption of beer.
2. Highest sales personnel of Budweiser in Senegal
3. Country with the highest profit of the fourth quarter in 2019

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COUNTRIES
ANALYSIS

PROFIT ANALYSIS

Section A



1: Within the space of the last three years, what was the profit worth of the breweries, inclusive of the anglophone and the francophone territories?

SQL CODE 1:

```
SELECT countries, SUM(profit) AS Profit_worth FROM breweries  
GROUP BY countries ORDER BY Profit_worth DESC;
```

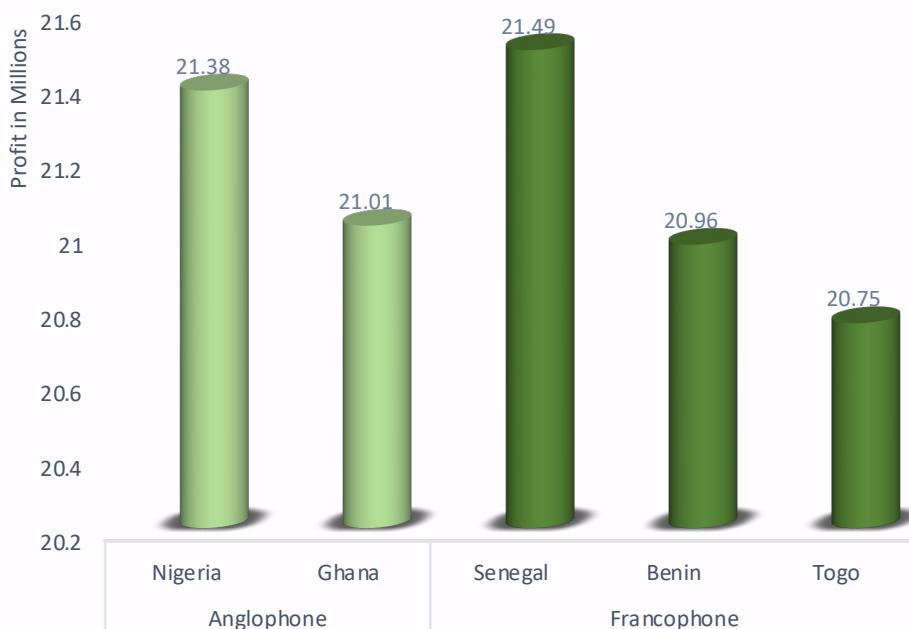
SQL CODE 2:

```
SELECT SUM (profit) AS Profit_Worth,  
CASE WHEN Countries IN ('Ghana','Nigeria') THEN 'Anglophone' ELSE  
'Francophone'  
END AS Language_Territory FROM breweries GROUP BY Language_Territory  
ORDER BY Profit_Worth DESC;
```

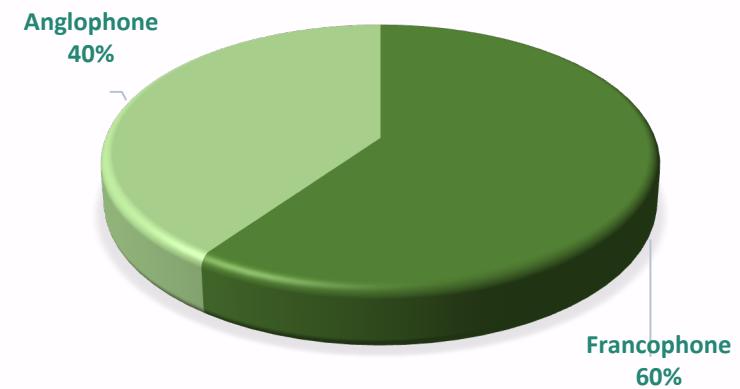
TABLE 1		
Language Territory	Countries	Profit worth
Anglophone	Nigeria	21,376,210
	Ghana	21,013,050
Francophone	Senegal	21,485,190
	Benin	20,961,970
	Togo	20,751,000

TABLE 2		
S/No	Language Territory	Profit Worth
1.	Francophone	63,198,160
2.	Anglophone	42,389,260

Profits from Anglophone and Francophone countries in millions



PROFIT WORTH



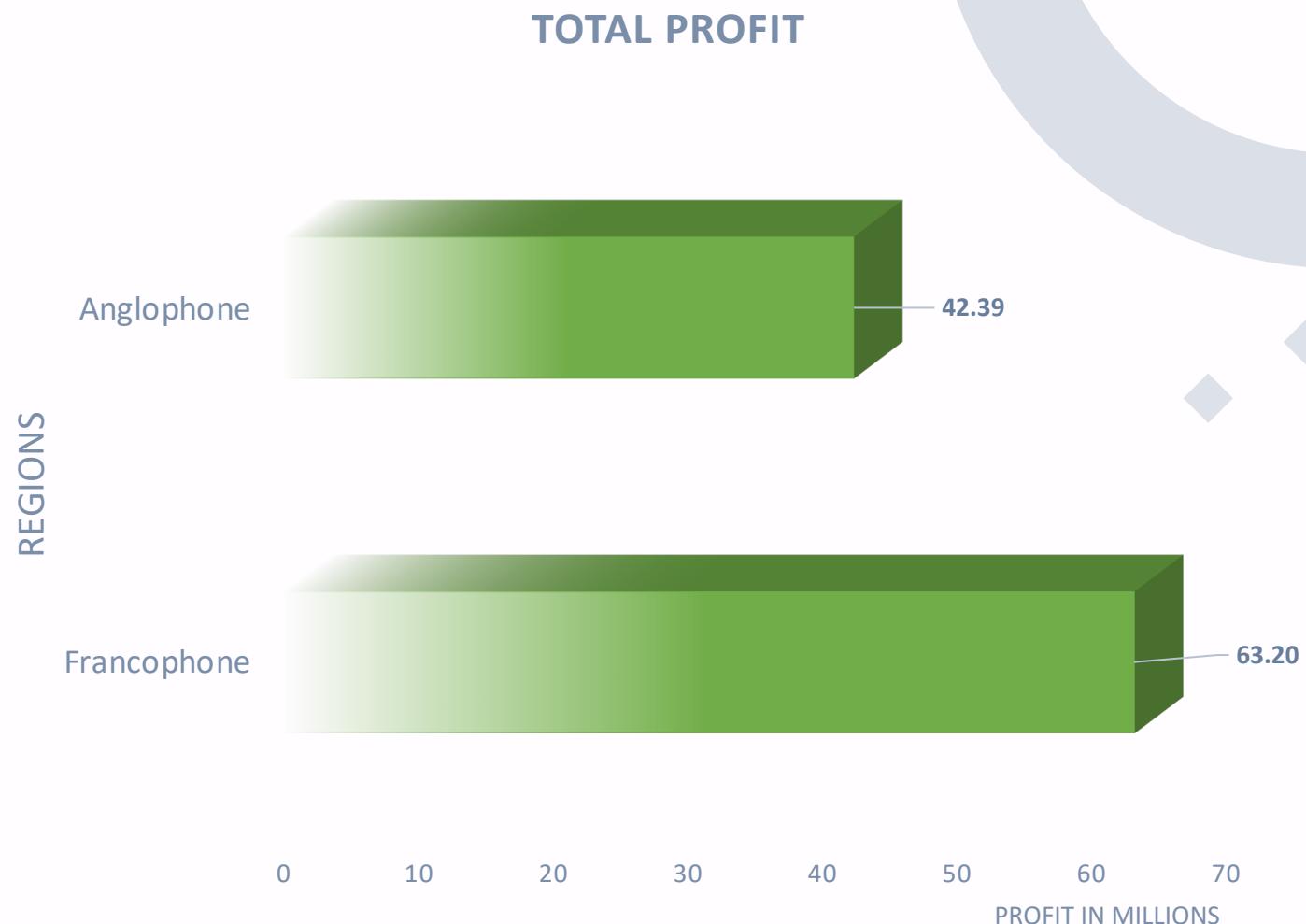
EXPLANATION: The table 1 shows the results of SQL code 1 listing of all the the details of the Anglophone and Francophone countries and their individual Profit performances while Table 2 has results of SQL code 2 with the total profit performance of both Language territories cumulatively. The chart on the left visualizes Table 1 grouping countries by Language and colour while the Pie Chart shows the percentage performance of each Language territory. Francophone territories cumulatively contributed 60% of the company's profit during the review period.

2: Compare the total profit between these two territories in order for the territory manager, Mr. Stone made a strategic decision that will aid profit maximization in 2020.

SQL CODES:

```
SELECT SUM (profit) AS Total_Profit,  
CASE  
WHEN Countries IN ('Ghana','Nigeria') THEN 'Anglophone'  
ELSE 'Francophone'  
END AS Language_Territory  
FROM breweries  
GROUP BY Language_Territory  
ORDER BY Total_Profit DESC;
```

S/No	Language Territory	Total Profit
1	Francophone	63,198,160
2	Anglophone	42,389,260



EXPLANATION: The table and bar chart visualizes the total performance of both Language territories and regional profit performances indicating that the Francophone Language territories contributed 60% of the company's profit within the period under review.

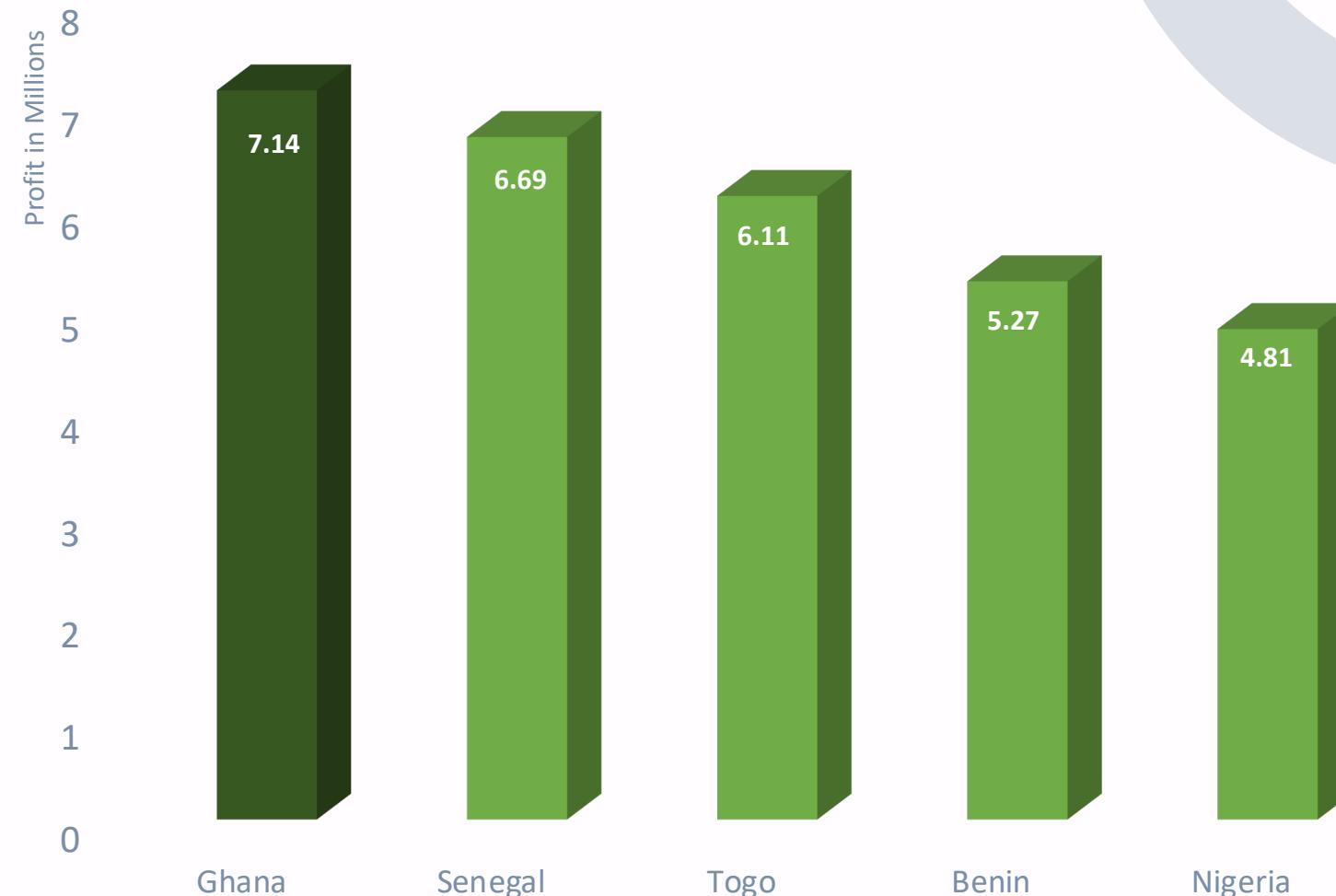
3: Country that generated the highest profit in 2019

SQL CODES:

```
SELECT countries, SUM(profit) AS Profit  
FROM breweries  
WHERE years = 2019  
GROUP BY countries  
ORDER BY SUM(profit) DESC;  
LIMIT 1
```

S/No	Countries	Profit
1	Ghana	7,144,070
2	Senegal	6,687,560
3	Togo	6,109,960
4	Benin	5,273,340
5	Nigeria	4,805,320

Analysis of Profit per Country (2019)



EXPLANATION: The table lists the countries in the Breweries dataset with the sum of their profits arranged in Descending Order, Enabling us see the Country that generated the highest profit (Ghana) at number 1. The Graph visualizes the results, singling out the most profitable country in a different color. The last line of the code ((LIMIT 1)) will retain only the first result line of the table as the absolute result value

4: Country that generated the highest profit in 2019

SQL CODES:

```
SELECT years, SUM(profit) AS Profit  
FROM Breweries  
GROUP BY years  
ORDER BY SUM(profit) DESC  
LIMIT 1
```

Years	Profit
2017	38,503,320
2018	37,063,850
2019	30,020,250

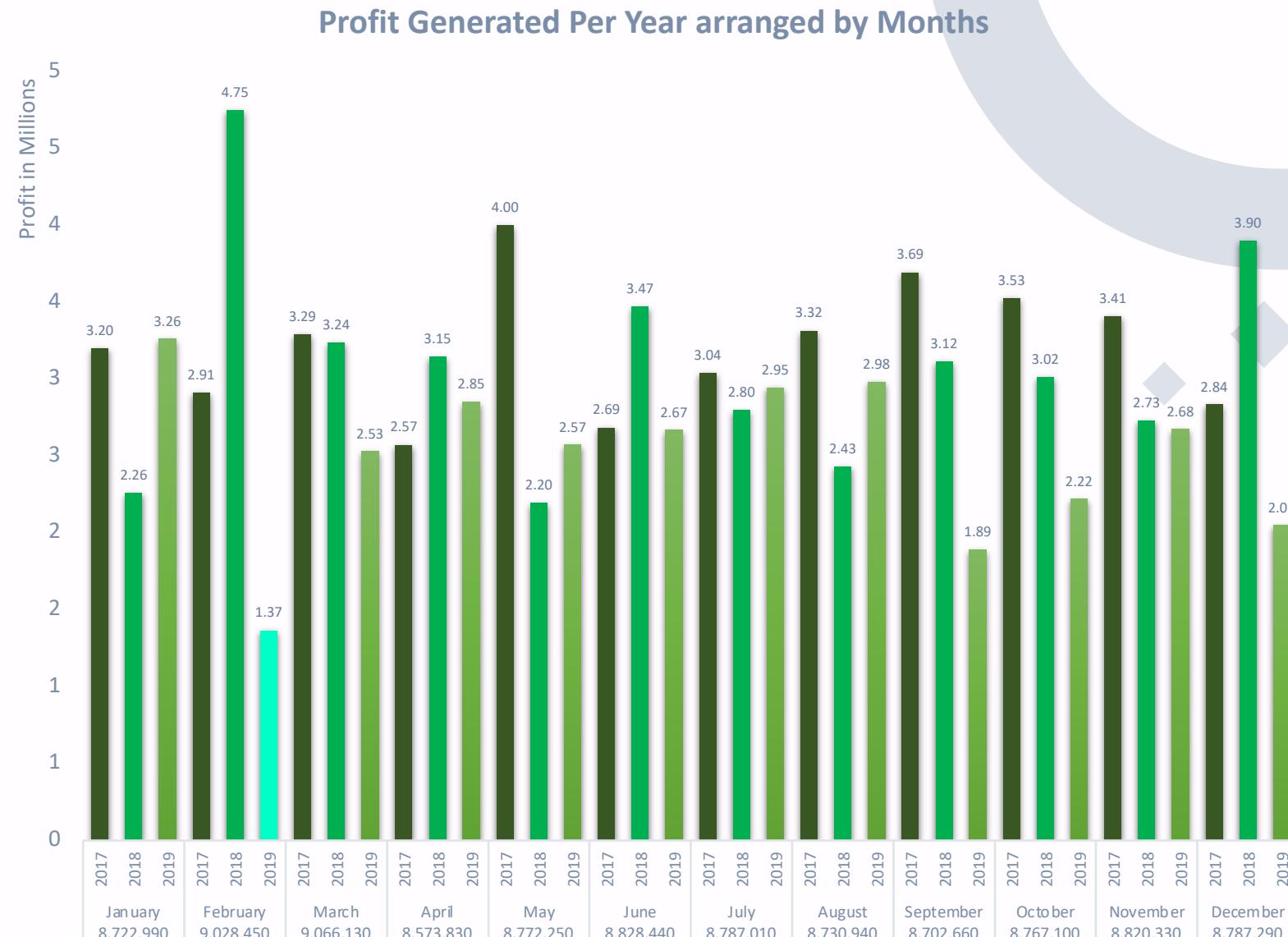


EXPLANATION: The table shows the Year-on-Year Profit performance in the Breweries dataset in Descending Order, Enabling us see the Company made the highest profit in 2017 compared to the other years. The Graph visualizes the profit performance and shows a downward trend year-on-year, singling out the most profitable year in the deepest color. The last line of the code (LIMIT 1) will retain only the first result line of the table as the absolute result value

5: Which month in the three years was the least profit generated?

SQL CODES: SELECT months, years, SUM(profit) AS Profit,
FROM breweries
GROUP BY months, years,
ORDER BY SUM(profit) ASC
LIMIT 1

Months	Cumulative Profit generated
January	8,722,990
February	9,028,450
March	9,066,130
April	8,573,830
May	8,772,250
June	8,828,440
July	8,787,010
August	8,730,940
September	8,702,660
October	8,767,100
November	8,820,330
December	8,787,290



EXPLANATION: The graph shows the profit per month in the Breweries dataset (rearranged by month and grouped by year for easier readability), enabling us see month in the three years where the least profit was generated (**February 2019**). (LIMIT 1) will retain only the first result line of the table as the absolute result value when the table is arranged in Ascending order.

6: What was the minimum profit in the month of December 2018?

SQL CODES:

```
SELECT months, years, profit  
FROM Breweries  
WHERE months = 'December'  
AND years = 2018  
GROUP BY months, years, profit  
ORDER BY profit ASC  
LIMIT 1
```

```
58  
59 --6. What was the minimum profit in the month of December 2018?  
60 SELECT months, years, profit  
61 FROM Breweries  
62 WHERE months = 'December'  
63 AND years = 2018  
64 GROUP BY months, years, profit  
65 ORDER BY profit ASC  
66 LIMIT 1  
67  
68 SELECT months, years, profit
```

Data output Messages Notifications

	months	years	profit
	character varying	integer	integer
1	December	2018	38150

Months	Years	Profit
December	2018	38,150
December	2018	38,200
December	2018	38,850
December	2018	42,120
December	2018	43,200
December	2018	45,660
December	2018	47,040
December	2018	47,950
December	2018	48,100
December	2018	49,080
December	2018	49,630
December	2018	52,500
December	2018	54,240
December	2018	54,880
December	2018	56,160
December	2018	58,240
December	2018	60,480
December	2018	69,650
December	2018	74,400
December	2018	194,670
December	2018	213,570
December	2018	217,250
December	2018	217,890
December	2018	220,500
December	2018	222,750
December	2018	226,500
December	2018	226,800
December	2018	231,930
December	2018	233,500
December	2018	237,060
December	2018	242,460
December	2018	248,750

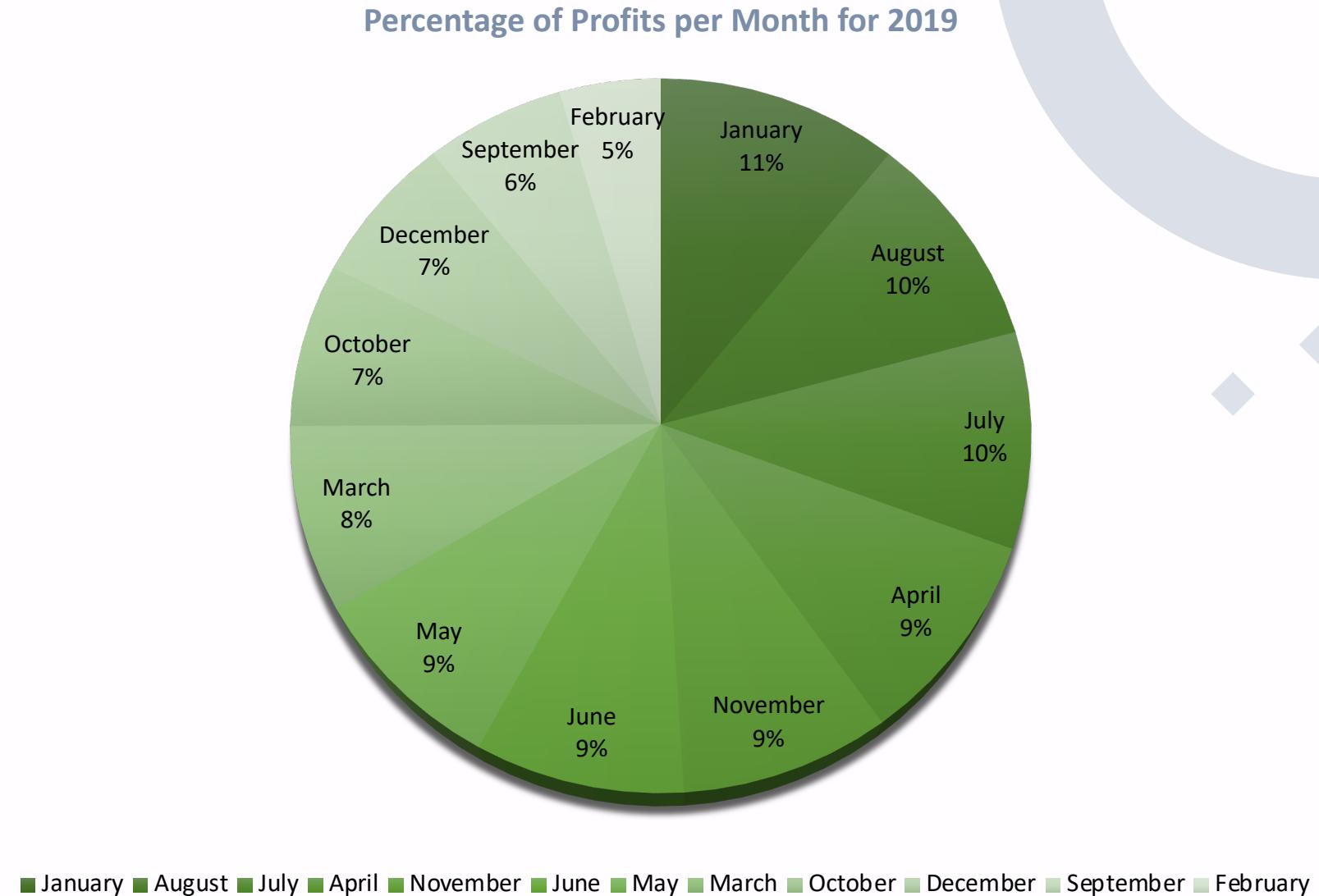
EXPLANATION: The table shows the list of all the profits earned in December 2018 in the Breweries dataset arranged in Ascending Order, Enabling us see the **the minimum profit obtained in the month of December 2018 is 38,150**. The last line of the code (LIMIT 1) will retain only the first result line of the table as the absolute result value

7: Compare the profit in percentage for each of the month in 2019

SQL CODES:

```
SELECT months, SUM(profit), SUM(profit) * 100.0  
/ SUM(SUM(profit)) OVER () AS percentage  
  
FROM breweries  
  
WHERE years = 2019  
  
GROUP BY months  
  
ORDER BY 3 DESC;
```

Months	Profits	Percentage of Profits (%)
January	3,263,160	10.9
August	2,982,800	9.9
July	2,945,340	9.8
April	2,851,470	9.5
November	2,675,610	8.9
June	2,669,080	8.9
May	2,573,040	8.6
March	2,530,620	8.4
October	2,220,870	7.4
December	2,048,780	6.8
September	1,892,600	6.3
February	1,366,880	4.6
TOTAL	30,020,250	100



EXPLANATION: The table shows the monthly profits and corresponding percentages for 2019 arranged in Descending Order and rounded to the nearest whole number, Enabling us Compare the profit in percentage for each of the month in 2019. The Pie Chart on the side visualizes the Monthly percentages. It is visible that the company generated the highest profit in the month of January contributing approximately 10.9% of the annual total profit while February witnessed the lowest profit generated in the year at approximately 4.6%.

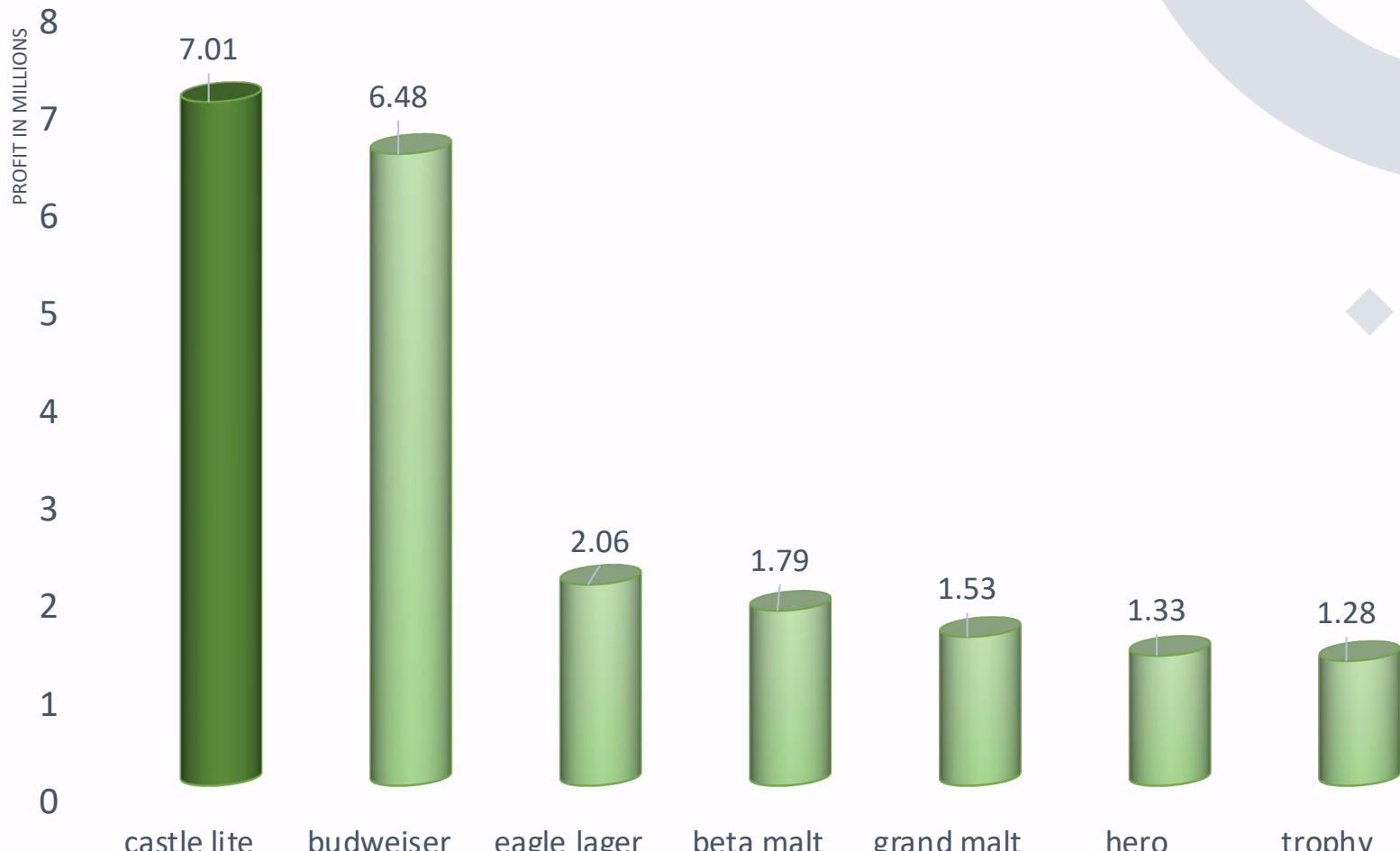
QUESTION 8: Which particular brand generated the highest profit in Senegal?

SQL CODES:

```
SELECT brands, SUM(profit) AS Profit  
FROM Breweries  
WHERE countries = 'Senegal'  
GROUP BY brands  
ORDER BY SUM(profit) DESC  
LIMIT 1
```

S/No	Brands	Total Profit in Senegal
1	Castle lite	7,012,980
2	Budweiser	6,480,750
3	Eagle lager	2,061,680
4	Beta malt	1,793,750
5	Grand malt	1,525,680
6	Hero	1,331,600
7	Trophy	1,278,750

Total Profit per Brand in Senegal



EXPLANATION: The table shows the list of all the distinct brands in the Breweries dataset from Senegal and the sum of their profits arranged in Descending Order, Enabling us see that **Castle lite generated the highest profit** at number 1. The Graph on the side also visualizes each each brands profit performance, singling out the most profitable brand in a different color. The last line of the code (LIMIT 1) will retain only the first result line of the table as the absolute result value

BRAND ANALYSIS



Section B



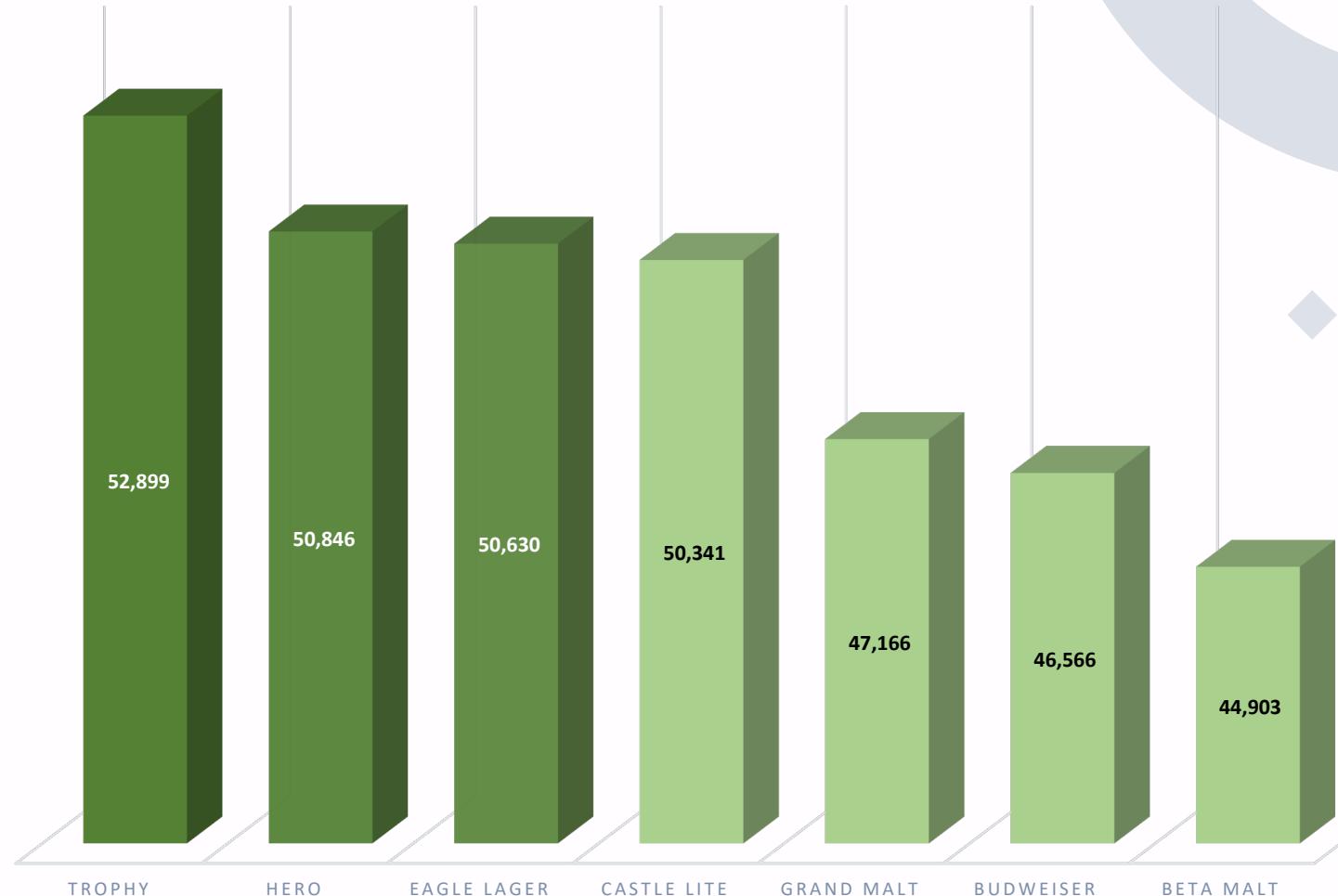
1: Within the last two years, the brand manager wants to know the top three brands consumed in the francophone countries

SQL CODES:

```
SELECT brands, SUM(quantity) FROM breweries  
WHERE Countries IN ('Togo','Benin','Senegal')  
AND years IN (2018, 2019)  
GROUP BY brands ORDER BY SUM(quantity) DESC  
LIMIT 3
```

S/No	Brands	<u>Consumed Quantities</u>
1	Trophy	52,899
2	Hero	50,846
3	Eagle lager	50,630
4	Castle lite	50,341
5	Grand malt	47,166
6	Budweiser	46,566
7	Beta malt	44,903

CONSUMED QUANTITIES



EXPLANATION: The table shows the list of all the distinct Brands and the sum of quantities consumed in 2018 and 2019 from the Breweries dataset in Descending Order, with the top 3 highlighted at numbers 1-3. The Graph on the side also visualizes each by quantities consumed, showcasing the top 3 consumed brands in a different shade of green. The last line of the code (LIMIT 3) will retain only the first 3 result lines of the table as the absolute result values and hence may not need to visualization for comparison with other Sales reps

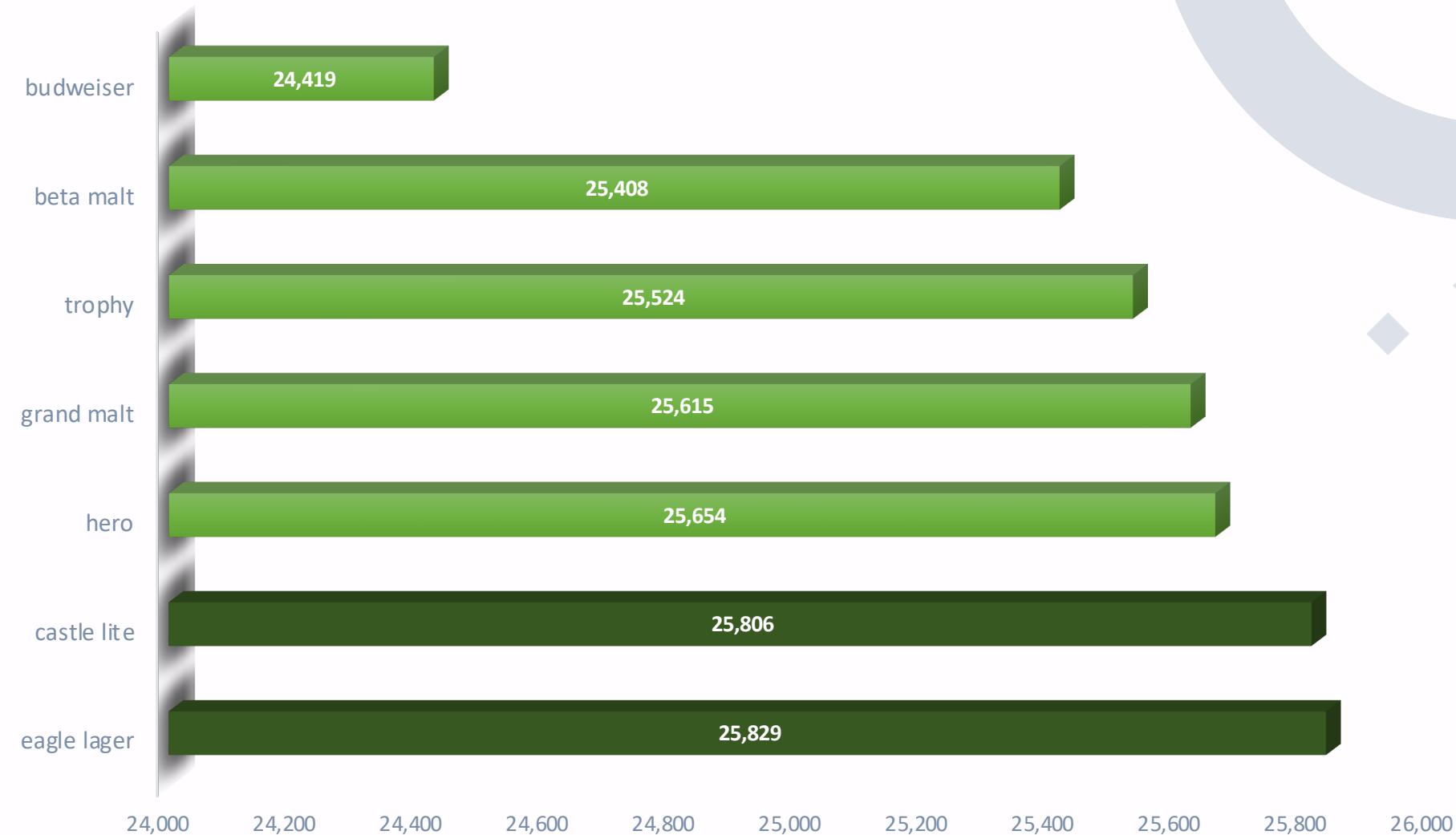
2: Find out the top two choice of consumer brands in Ghana

SQL CODES:

```
SELECT SUM(Quantity),brands  
FROM BREWERIES  
WHERE countries = 'Ghana'  
GROUP BY brands  
ORDER BY SUM(quantity) DESC  
LIMIT 2
```

S/No	Brands	Consumed Quantities
1	Eagle lager	<u>25,829</u>
2	Castle lite	<u>25,806</u>
3	Hero	25,654
4	Grand malt	25,615
5	Trophy	25,524
6	Beta malt	25,408
7	Budweiser	24,419

Consumer brands in Ghana with corresponding consumed quantities



EXPLANATION: The table shows the list of all the distinct Brands and the sum of quantities consumed in Ghana from the Breweries dataset in Descending Order, with the top 2 highlighted at numbers 1 and 2. The Graph on the side also visualizes each quantities consumed, showcasing the top 2 consumed brands in a different shade of green. The last line of the code (LIMIT 2) will retain only the first 2 result line of the table as the absolute result value and hence may not need to visualization for comparison with other Brands

3: Find out the details of beers consumed in the past three years in the most oil rich country in West Africa (Nigeria).

SQL CODES:

```
SELECT brands, SUM(profit) AS Profit_earned,  
SUM(quantity) AS Quantity_Sold  
FROM breweries  
WHERE countries = 'Nigeria'  
AND brands NOT LIKE '%malt'  
GROUP BY 1
```

OR (ENCOMPASSING ANSWER)

```
SELECT * FROM breweries  
WHERE countries = 'Nigeria'  
AND brands NOT LIKE '%malt'
```

Brands	Quantity Sold	Profit Earned
Hero	25,811	1,290,550
Castle lite	25,681	6,933,870
Budweiser	26,153	6,538,250
Trophy	25,743	1,287,150
Eagle lager	25,872	2,069,760



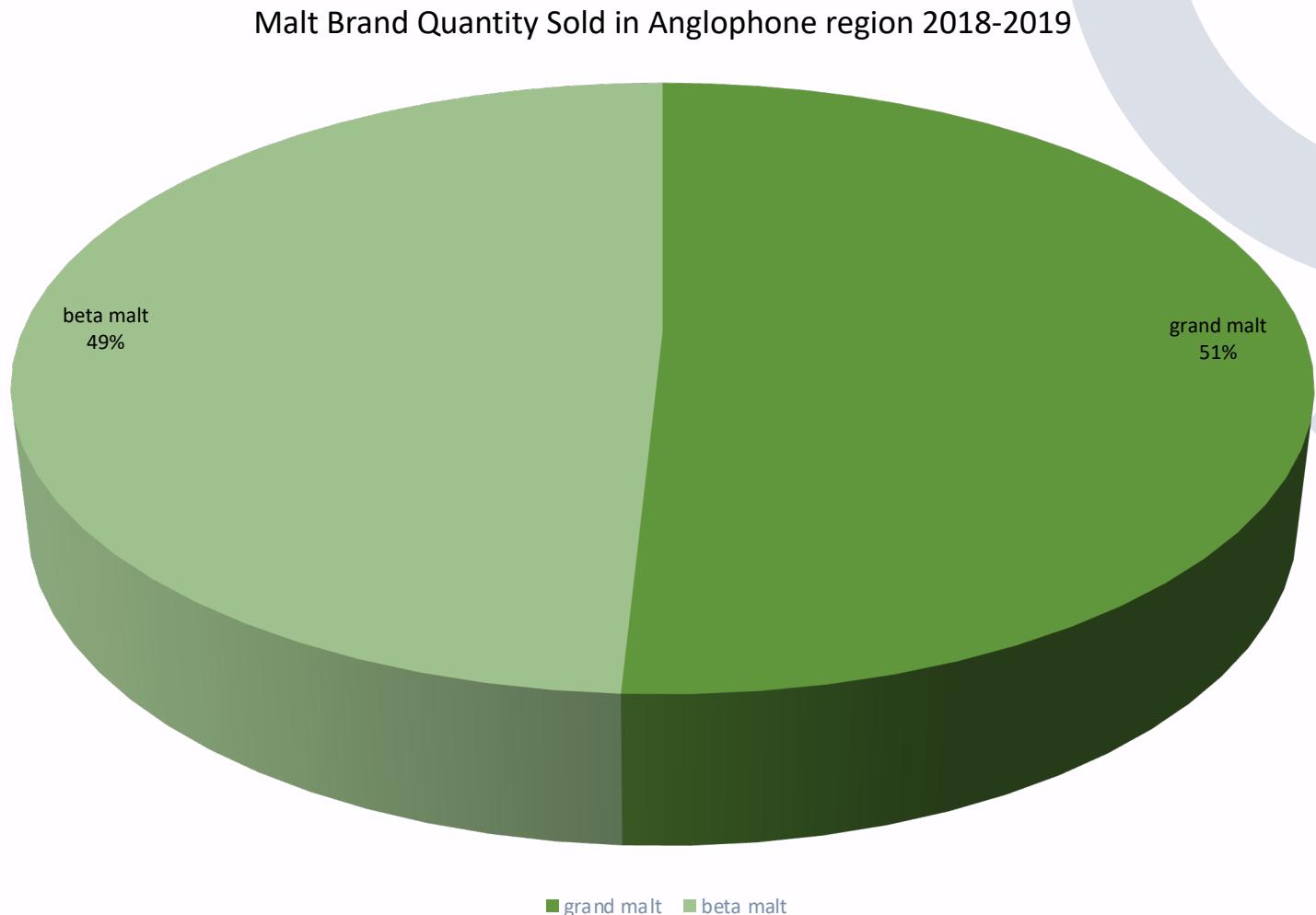
EXPLANATION: The table shows the list of all the distinct brands and the sum of quantities sold alongside profits earned in Nigeria from the Breweries dataset. The chart on the side also visualizes quantities consumed alongside profits earned in a different shade of green.

4: Favorite malt brand in Anglophone region between 2018 and 2019.

SQL CODES:

```
SELECT brands, SUM(quantity) AS  
Quantity_Sold  
FROM breweries  
WHERE Countries IN ('Nigeria','Ghana')  
AND brands ILIKE '%malt'  
AND years IN (2018, 2019)  
GROUP BY brands  
ORDER BY 2 DESC
```

Brands	Quantity Sold
Grand malt	33,221
Beta malt	32,118



EXPLANATION: The table shows the distinct malt brands and their respective cumulative quantities sold in the Breweries dataset in the Anglophone region between 2018 and 2019 arranged in Descending order. The Pie chart on the side also visualizes the Proportion of quantity sold of the distinct Malt brands in different colors. Grand malt by virtue of having the larger proportion of quantity sold is the favorite malt brand in the Anglophone region.

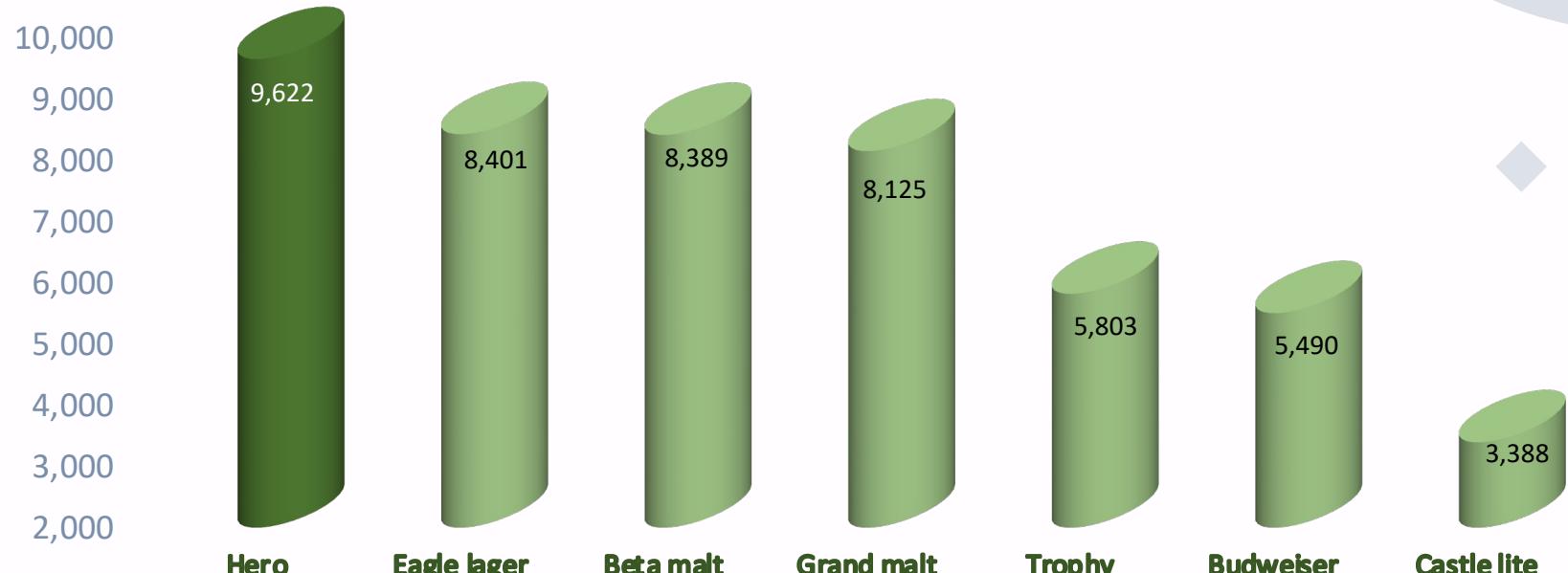
5: Which brand sold the highest in 2019 in Nigeria?

SQL CODES:

```
SELECT brands, SUM(quantity) AS Sales  
FROM breweries  
WHERE countries = 'Nigeria'  
AND years = 2019  
GROUP BY brands  
ORDER BY sales DESC
```

S/No	Brands	Sales
1	Hero	9,622
2	Eagle lager	8,401
3	Beta malt	8,389
4	Grand malt	8,125
5	Trophy	5,803
6	Budweiser	5,490
7	Castle lite	3,388

SALES



EXPLANATION: The table shows the list of all the distinct Brands and the sum of quantities sold in 2019 in Nigeria from the Breweries dataset in Descending Order Showing the Hero Brand as the Highest sold in Nigeria. The Graph on the side also visualizes each quantity consumed, showcasing the Hero brand in a different shade of green.

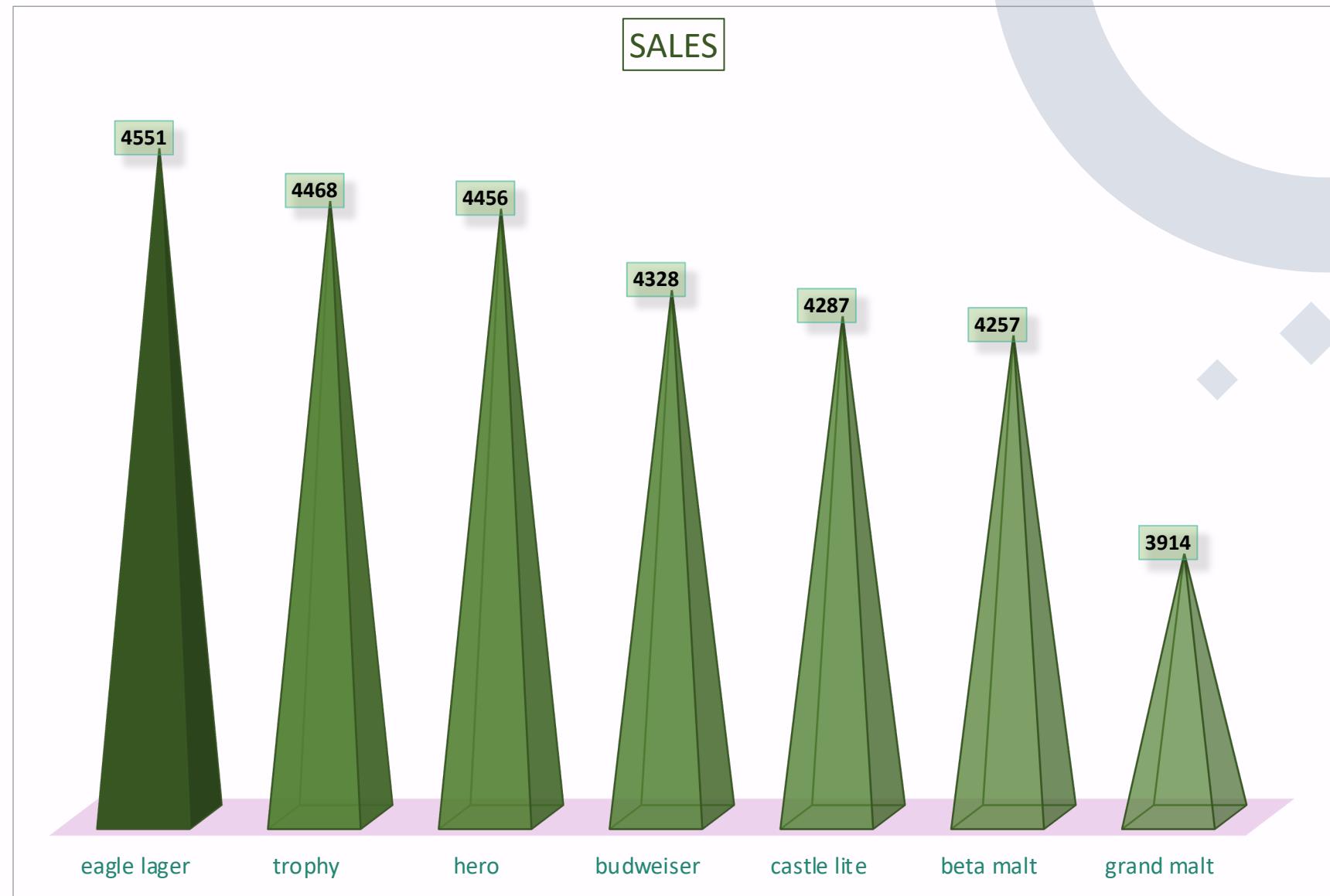
6: Favourite brand in South-South region in Nigeria?

SQL CODES:

```
SELECT brands, SUM(quantity) AS Sales  
FROM breweries  
WHERE region= 'southsouth'  
AND countries = 'Nigeria'  
GROUP BY brands  
ORDER BY sales DESC
```

S/No	Brands	Sales
1	Eagle Lager	4551
2	Trophy	4468
3	Hero	4456
4	Budweiser	4328
5	Castle Lite	4287
6	Beta Malt	4257
7	Grand Malt	3914

SALES



EXPLANATION: The table shows the list of all the distinct Brands and the sum of quantities sold in the south south region of Nigeria from the Breweries dataset in Descending Order. We see the **Eagle Lager Brand** as the Highest sold in the region of Nigeria. The Graph on the side also visualizes each quantity sold, showcasing in reducing intensities of green.

7: Beer consumption in Nigeria

SQL CODES:

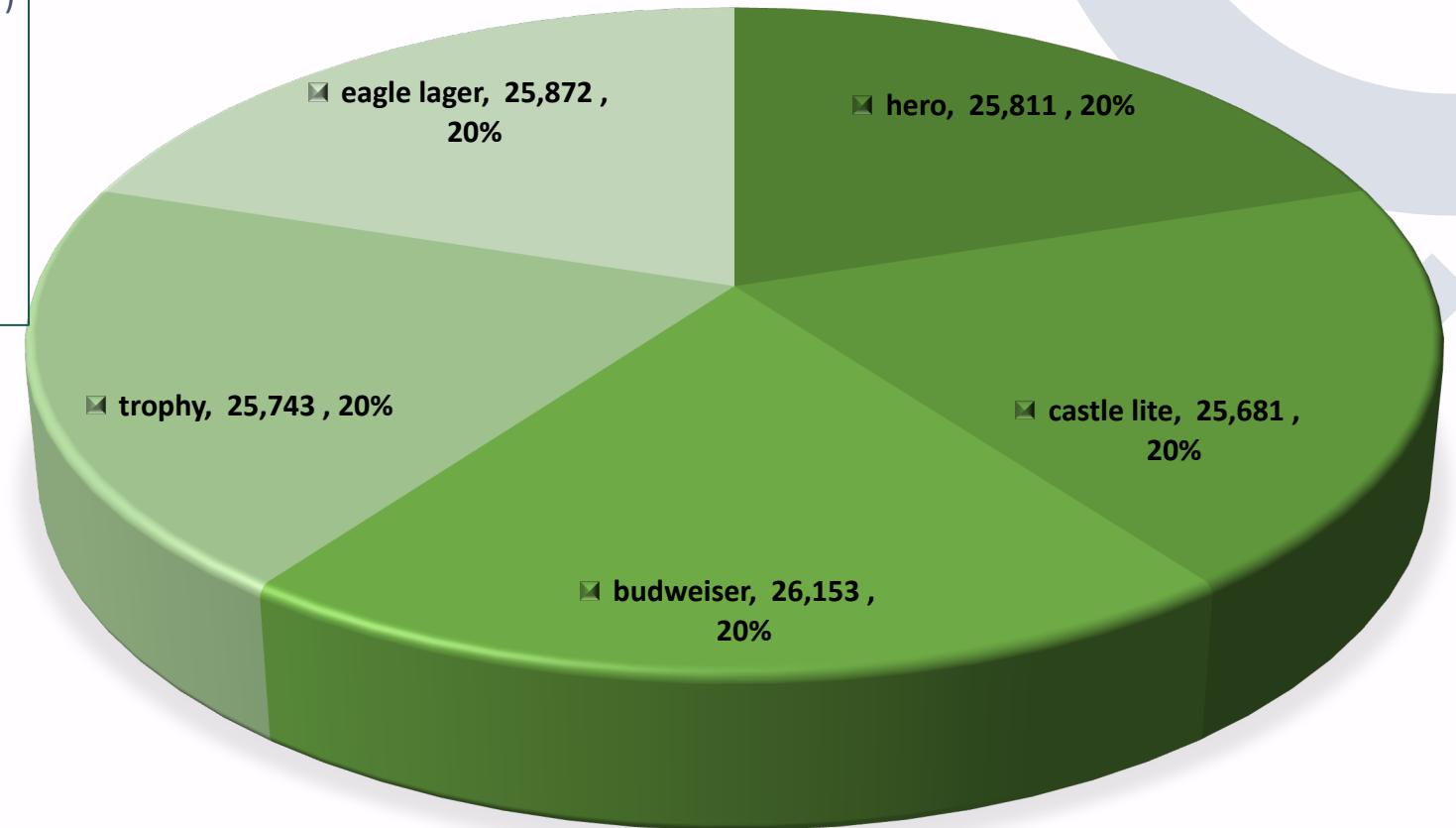
```
SELECT brands, SUM(quantity) AS  
Total_Quantity_Sold  
FROM breweries  
WHERE countries = 'Nigeria'  
AND brands NOT LIKE '%malt'  
GROUP BY 1
```

ALTERNATIVE SQL CODES FOR TOTAL VALUE:

```
SELECT countries, SUM(quantity)  
AS Total_Quantity_Sold  
FROM breweries  
WHERE countries = 'Nigeria'  
AND brands NOT LIKE '%malt'  
GROUP BY 1
```

S/No	Brands	Total Quantity Sold
1	Hero	25,811
2	Castle lite	25,681
3	Budweiser	26,153
4	Trophy	25,743
5	Eagle lager	25,872
TOTAL		129,260

TOTAL QUANTITY SOLD



EXPLANATION: The table shows the list of all the distinct Beer Brands and the sum of quantities consumed in Nigeria from the Breweries dataset in Descending order. The Pie Chart on the side also visualizes each quantity consumed, alongside corresponding proportions (percentages) in reducing intensities of green.

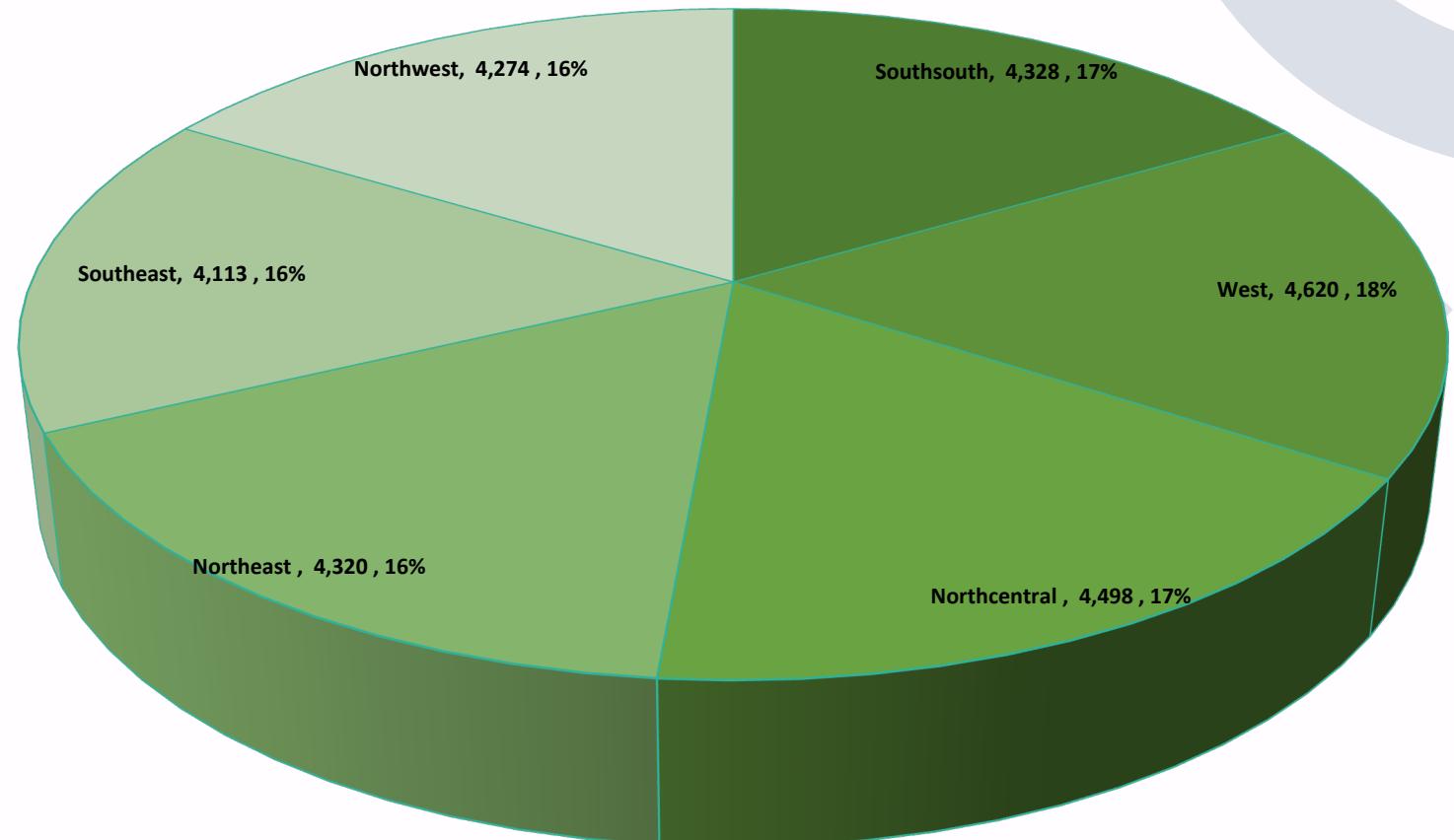
8: Level of consumption of Budweiser in the regions in Nigeria

SQL CODES:

```
SELECT region, SUM(quantity) AS  
Total_Quantity_Sold  
  
FROM breweries  
  
WHERE countries = 'Nigeria'  
  
AND brands = 'budweiser'  
  
GROUP BY 1
```

S/No	Region	Total Quantity Sold
1	Southsouth	4,328
2	West	4,620
3	Northcentral	4,498
4	Northeast	4,320
5	Southeast	4,113
6	Northwest	4,274

Total Quantity of Budweiser Sold by Region in Nigeria



EXPLANATION: The table shows the list of all the distinct regions and the sum of quantities of Budweiser sold/consumed per region in Nigeria from the Breweries dataset. The Pie Chart on the side also visualizes each quantity consumed per region alongside percentage proportions.

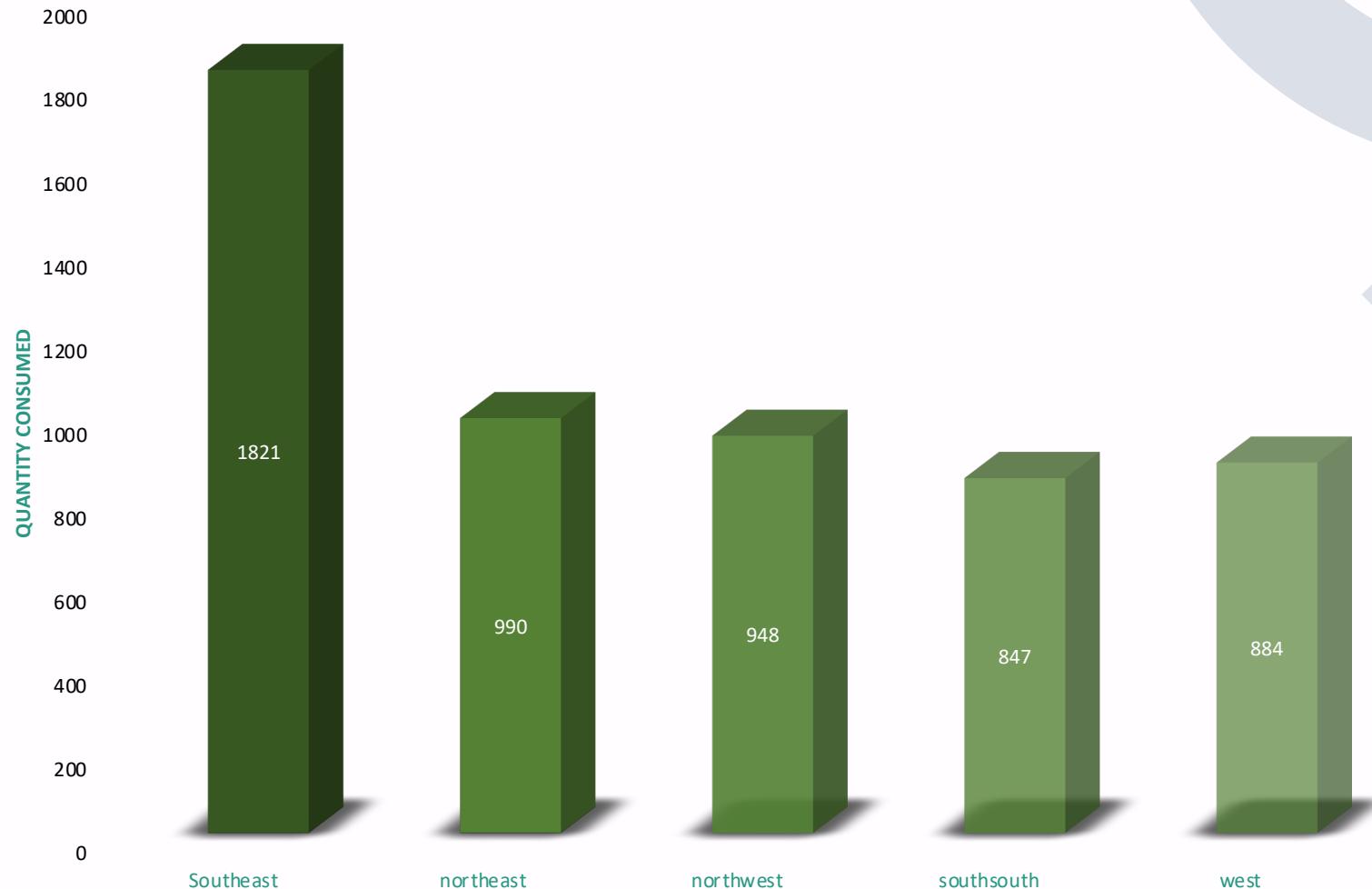
9: Level of consumption of Budweiser in the regions in Nigeria in 2019 (Decision on Promo)

SQL CODES:

```
SELECT region, SUM(quantity) AS Consumption_level  
FROM breweries  
WHERE countries = 'Nigeria'  
AND brands = 'budweiser'  
AND years = 2019  
GROUP BY 1
```

S/No	Region	Consumption Level
1	Southeast	1821
2	Northeast	990
3	Northwest	948
4	Southsouth	847
5	West	884

Consumption Level of Budweiser in Nigerian regions (2019)



EXPLANATION: The table shows the list of all the distinct regions and the sum of consumed quantities consumed in the various regions of Nigeria from the Breweries dataset in descending order in 2019. the chart shows the Southeast region with the Highest consumption. The Chart on the side also visualizes each quantity consumed, showcasing in reducing intensities of green.

COUNTRIES ANALYSIS

↓
Section C



1: Country with the highest consumption of beer

SQL CODES:

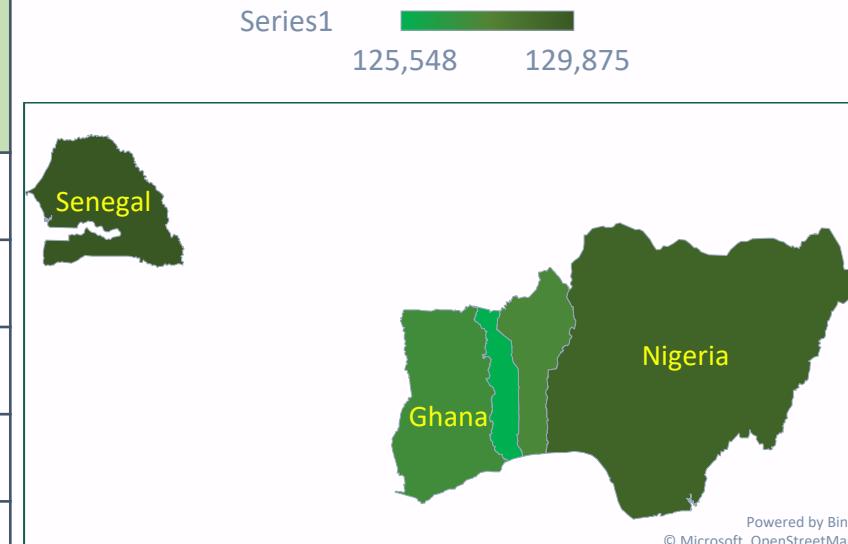
```
SELECT countries, SUM(quantity) AS Total_Quantity  
FROM breweries  
WHERE brands IN('eagle lager', 'hero',  
'castle lite', 'budweiser', 'trophy')  
GROUP BY countries  
ORDER BY SUM(quantity) DESC  
LIMIT 1;
```

S/No	Countries	Quantity Of Beer
1	Senegal	129,875
2	Nigeria	129,260
3	Benin	127,455
4	Ghana	127,232
5	Togo	125,548

SQL CODES (ALTERNATIVE):

```
SELECT countries, SUM(quantity) AS Total_Quantity  
FROM breweries  
WHERE brands NOT LIKE '%malt'  
GROUP BY countries  
ORDER BY 2 DESC LIMIT 1
```

Consumption of Beer Per country highlighted in shades of colour Green with varying intensities in West African region



TOTAL BEER CONSUMPTION PER COUNTRY



EXPLANATION: The table shows the list of all the distinct countries and the sum of quantities consumed from the Breweries dataset in descending order. The chart shows Senegal with the highest consumption. The Map highlights the country positions on the map and consumption intensities while the Chart on the side also visualizes each country alongside quantity consumed, showcasing in reducing intensities of green. The last line of the code (LIMIT 1) will retain only the first result line of the table (Senegal) as the absolute result value.

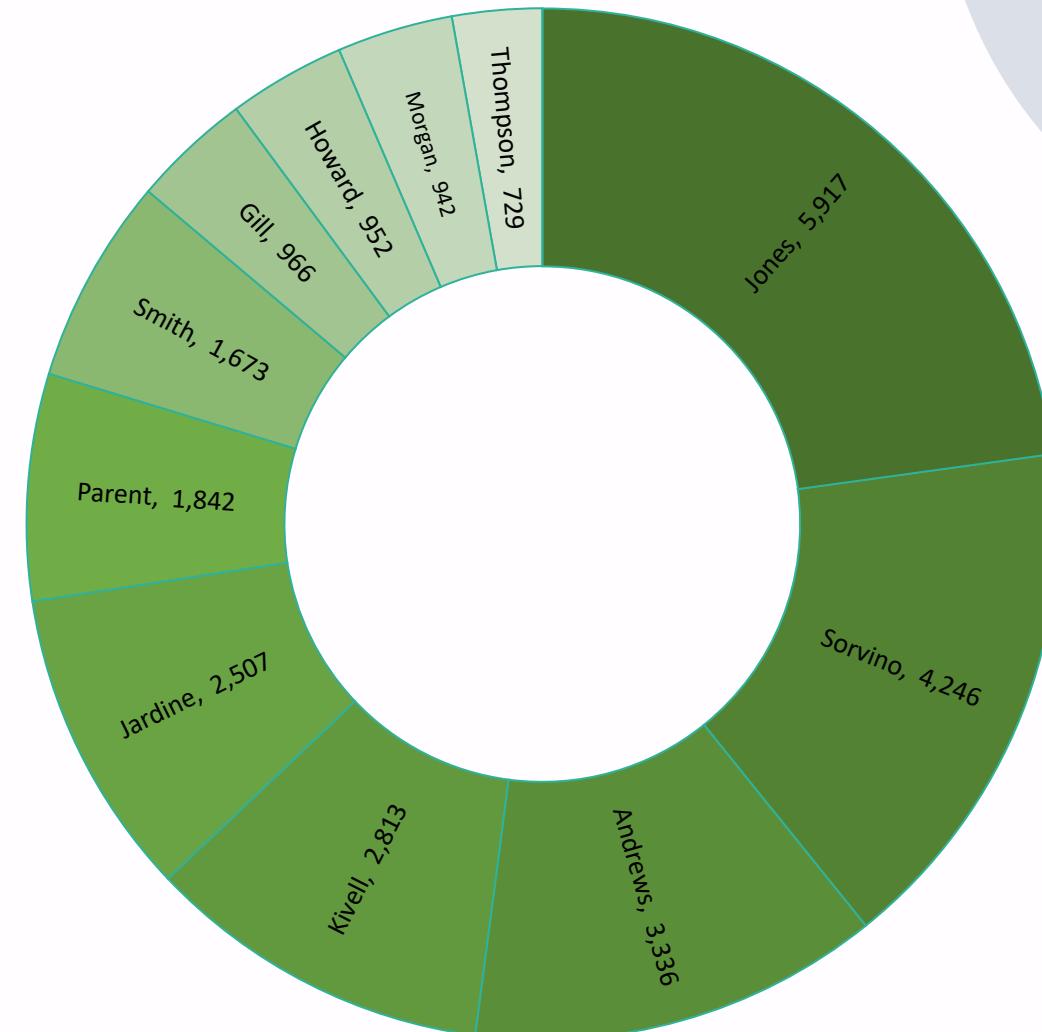
2: Highest sales personnel of Budweiser in Senegal

SQL CODES:

```
SELECT Sales_rep, SUM(quantity) AS Sales  
FROM breweries  
WHERE countries = 'Senegal'  
AND brands = 'budweiser'  
GROUP BY sales_rep  
ORDER BY Sales DESC  
LIMIT 1
```

S/No	Sales_Rep	Quantity of Sales
1	Jones	5917
2	Sorvino	4246
3	Andrews	3336
4	Kivell	2813
5	Jardine	2507
6	Parent	1842
7	Smith	1673
8	Gill	966
9	Howard	952
10	Morgan	942
11	Thompson	729

Budweiser Sales Volume by Sales Reps in Senegal



EXPLANATION: The table shows the list of all the distinct sales personnel with their total quantity of sales in Senegal from the Breweries dataset in descending order. The Table shows the **Sales Rep Jones** with the Highest Sales of 5,917. The Chart on the side also visualizes each sales rep and their respective quantities sold, showcasing in reducing intensities of green. The last line of the code (LIMIT 1) will retain only the first result line of the table (Jones) as the absolute result value

3: Country with the highest profit of the fourth quarter in 2019

SQL CODES:

```
SELECT countries, SUM(profit) AS Total_Profit  
FROM breweries  
WHERE months IN  
('October','November','December')  
AND years = 2019  
GROUP BY countries  
ORDER BY Profit DESC  
LIMIT 1
```

S/No	Countries	Total Profit
1	Ghana	2,045,230
2	Togo	1,448,360
3	Nigeria	1,383,280
4	Benin	1,109,130
5	Senegal	959,260

Total profit by Country

Ghana, 2,045,230

Togo, 1,448,360

Nigeria, 1,383,280

Benin, 1,109,130

Senegal, 959,260

Countries represented by total profit



EXPLANATION: The table shows the list of all the countries and their total profits in QTR 4 2019, from the Breweries dataset in descending order in 2019. The Funnel chart shows Ghana as the country with the Highest profit within the reporting period. The Map also visualizes each country by total profit in reducing intensities of green. The last line of the code (LIMIT 1) will retain only the first result line of the table (Ghana) as the absolute result value

Thank you!