

Awesome Chocolates SQL Data Analytics Project Documentation

Introduction

Welcome to the Awesome Chocolates SQL Data Analytics Project! This documentation provides insights into the datasets related to sales, geography, people, and products. As we dive into the fascinating world of Awesome Chocolates, we'll explore key columns and demonstrate SQL queries for meaningful analysis.

Sales Data:

Amount: The sum of money generated from chocolate sales.

SaleDate: Dates of delightful transactions.

Boxes: The number of chocolate boxes exchanged.

Geographic Data (Geo):

GeoID: Special codes identifying different geographic regions.

Location Details: Information about places where chocolates find their way.

People Data:

Salesperson: Names or codes of individuals behind the sales.

Team: Teams or groups to which salespeople belong.

Product Data:

ProductID: Unique codes for each type of chocolate creation.

Product Details: Information about chocolate varieties, their names, categories, and special features.

Key SQL Queries

KPIs

1. What are the sales details for transactions where the amount is greater than 1000?

Syntax-

```
[SELECT SaleDate, Amount, Boxes FROM sales  
WHERE Amount > 1000;]
```

2. Uncovering Meaningful Patterns

Ascending Order:

Syntax-

```
[SELECT * FROM products ORDER BY Category;]
```

Descending Order:

Syntax-

```
[SELECT * FROM products ORDER BY Category DESC;]
```

3. AND Example

A: High-value sales transactions in the year 2022?

Syntax-

```
[SELECT SaleDate, Amount FROM sales WHERE Amount > 1000 AND SaleDate =  
2022;]
```

B: Identifying and presenting the highest-value sales transactions by Amount

Syntax-

```
[SELECT SUM(Amount) FROM sales WHERE GeoID = 'G1' AND DATE(SaleDate) =  
'2022-01-01';]
```

4. OR Example

A: Display Product of Category Bars or Size is 'SMALL'

Syntax-

```
[SELECT * FROM products WHERE Category = 'Bars' OR Size = 'SMALL';]
```

B: Number of Products where the product category is 'Bars' or the size is 'SMALL'

Syntax-

```
[SELECT COUNT(*) FROM products WHERE Category = 'Bars' OR Size = 'SMALL';]
```

5. NOT Example

A: Display Sales data excluding G1 location

Syntax-

```
[SELECT * FROM sales WHERE NOT GeoID = 'G1';]
```

B: Average Amount excluding G1 location

Syntax-

```
[SELECT AVG(Amount) FROM sales WHERE NOT GeoID = 'G1';]
```

6. MAX Example

A: Maximum Number of chocolate boxes sold in a single transaction

Syntax-

```
[SELECT MAX(Boxes) AS MaxBoxSold FROM sales;]
```

B: Minimum Number of chocolate boxes sold in a single transaction

Syntax-

```
[SELECT MIN(Boxes) AS MinBoxSold FROM sales;]
```

7. JOIN Operations

A: INNER JOIN

Syntax-

```
[SELECT s.SPID, s.SaleDate, p.Salesperson FROM sales s INNER JOIN people p ON  
s.SPID = p.SPID;]
```

B: LEFT JOIN

Syntax-

```
[SELECT s.SaleDate, s.Amount, pr.Product FROM sales s LEFT JOIN products pr ON  
pr.PID = s.SPID;]
```

C: RIGHT JOIN

Syntax-

```
[SELECT s.SaleDate, s.Amount, pr.Product FROM sales s RIGHT JOIN products pr ON  
pr.PID = s.SPID;]
```

D: FULL OUTER JOIN

Syntax-

```
[SELECT s.SaleDate, s.Amount, pr.Product FROM sales s FULL OUTER JOIN products pr ON  
pr.PID = s.SPID;]
```

8: GROUP BY and HAVING

Syntax-

```
[SELECT Category, COUNT(Cost_per_box) AS Count_Cost_per_box FROM products  
GROUP BY Category  
HAVING COUNT(Cost_per_box) > 5;]
```

This documentation provides a foundation for exploring and extracting insights from the Awesome Chocolates datasets. Feel free to adapt and expand these queries based on your specific analytical needs. Happy querying!