End-to-End Global Sales Analysis with SQL & Power BI

Queries

1. Columns' Name

Transaction ID

Date

Country

Product ID

Product Name

Category

Price Per Unit

Quantity Purchased

Cost Price

Discount Applied

Payment Method

Customer Age Group

Customer Gender

Store Location

Sales Representative

2. Merging the 6 datasets

```
CREATE TABLE public."Sales Data" as

select * from public."Sales Canada"

UNION ALL

SELECT * FROM public."Sales China"

Union all

SELECT * FROM public."Sales India"

Union all

SELECT * FROM public."Sales Nigeria"

Union all

SELECT * FROM public."Sales UK"

Union all

SELECT * FROM public."Sales US"
```

3. Checking for missing values

```
select *

from public."Sales Data"

where

   "Country" is null

        or "Price Per Unit" is null

        or "Quantity Purchased" is null

        or "Cost Price" is null

        or "Discount Applied" is null;
```

4. Updating “Quantity Purchased”

```
update public."Sales Data"

set "Quantity Purchased" = 3

where "Transaction ID" = '00a30472-89a0-4688-9d33-67ea8ccf7aea'
```

5. Updating “Price Per Unit”

```
update public."Sales Data"
set "Price Per Unit" = (
   SELECT AVG("Price Per Unit")
```

```
        from public."Sales Data"
        where "Price Per Unit" is not null
)
where "Transaction ID" = '001898f7-b696-4356-91dc-8f2b73d09c63';
```

6. Checking for duplicate values

```
select "Transaction ID", Count(*)
from public."Sales Data"
group by "Transaction ID"
having count(*)>1;
```

7. Adding “Total Amount” column

```
Alter table public."Sales Data" add
column"Total Amount" Numeric(10,2);

update public."Sales Data"
set "Total Amount"=("Price Per Unit" * "Quantity Purchased") - "Discount Applied";
```

8. Adding “Profit” column

```
alter table public."Sales Data" add

column "Profit" Numeric(10,2);



update public."Sales Data"

set "Profit"="Total Amount" - ("Cost Price" + "Quantity Purchased");
```

9. Sales Revenue & Profit by Country (Combined Query)

```
SELECT

    "Country",

    SUM("Total Amount") AS "Total Revenue",

    SUM("Profit") AS "Total Profit"

FROM public."Sales Data"

WHERE "Date" BETWEEN '2025-02-10' AND '2025-02-14'

GROUP BY "Country"
```

```
ORDER BY "Total Revenue" DESC;
```

10.Top 5 Best-Selling Products (During the Period)

```
SELECT
    "Product Name",
    SUM("Quantity Purchased") AS "Total Units Sold"
FROM public."Sales Data"
WHERE "Date" BETWEEN '2025-02-10' AND '2025-02-14'
GROUP BY "Product Name"
ORDER BY "Total Units Sold" DESC
LIMIT 5;
```

11.Best Sales Representatives (During the Period)

```
SELECT
    "Sales Representative",
    SUM("Total Amount") AS "Total Sales"
FROM public."Sales Data"
```

```
WHERE "Date" BETWEEN '2025-02-10' AND '2025-02-14'

GROUP BY "Sales Representative"

ORDER BY "Total Sales" DESC

LIMIT 5;
```

12.Which store locations generated the highest sales?

```
SELECT

    "Store Location",

    SUM("Total Amount") AS "Total Sales",

    SUM("Profit") AS "Total Profit"

FROM public."Sales Data"

WHERE "Date" BETWEEN '2025-02-10' AND '2025-02-14'

GROUP BY "Store Location"

ORDER BY "Total Sales" DESC

limit 5;
```

13.What are the key sales and profit insights for the selected period?

```
SELECT
```

```
    MIN("Total Amount") AS "Min Sales Value",
    MAX("Total Amount") AS "Max Sales Value",
    AVG("Total Amount") AS "Avg Sales Value",
    SUM("Total Amount") AS "Total Sales Value",
    MIN("Profit") AS "Min Profit",
    MAX("Profit") AS "Max Profit",
    AVG("Profit") AS "Avg Profit",
    SUM("Profit") AS "Total Profit"
FROM public."Sales Data"
WHERE "Date" BETWEEN '2025-02-10' AND '2025-02-14';
```