OVERVIEW

Attribute	Details
Created Date	8-26-2023
Release Date	8-26-2023
Author	Niño Garcia
Owner	Niño Garcia
Dashboard URL	https://tinyurl.com/Sales-Overview
Refresh Schedule	Daily
Refresh Time	8:00am Philippine Time
Notes	• The dashboard is designed to provide a company-wide sales overview for all products across all regions. • Data is refreshed every morning and should contain all sales data through the end of the day.

SCREENSHOT:
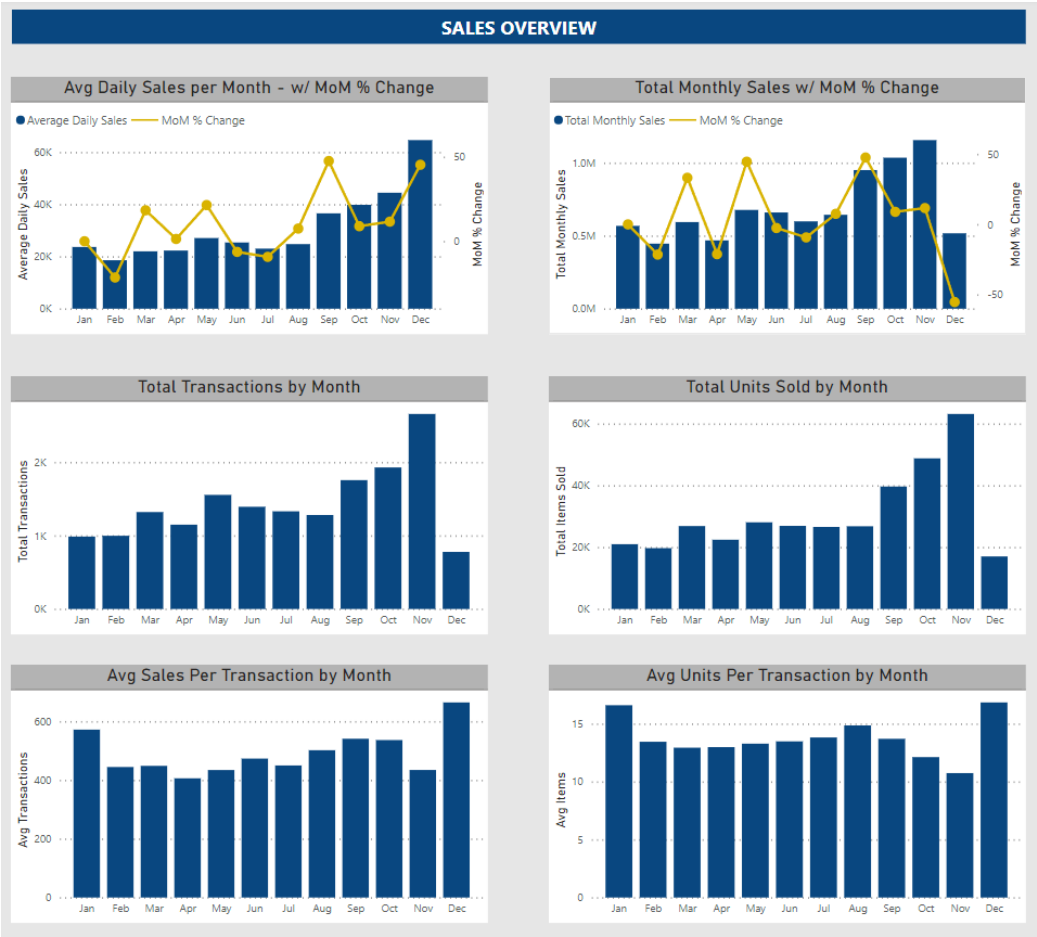
METRICS & DEFINITIONS

Metric Name	SQL Code	What It Means
| Average Daily Sales and Month-Over-Month Percentage Change | ```sql
WITH daily_sales AS (
 SELECT
   DATE_FORMAT(InvoiceDate, '%Y-%m-%d') AS date
  , SUM(quantity * unitprice) AS total_sales
 FROM sales_unique
 WHERE YEAR(InvoiceDate) = 2011
 GROUP BY DATE_FORMAT(InvoiceDate, '%Y-%m-%d')
),
monthly_avg_daily_sales AS (
 SELECT
   MONTH(date) AS month
 , ROUND(AVG(total_sales), 2) AS avg_daily_sales
 , ROUND(LAG(AVG(total_sales), 1) OVER (ORDER BY MONTH(date)), 2) AS previous_avg_daily_sales
 FROM daily_sales
 GROUP BY MONTH(date)
)
SELECT
  month
 , DATE_FORMAT(CONCAT('2011-', month, '-01'), '%b') AS month_name
 , avg_daily_sales
 , COALESCE(previous_avg_daily_sales, 0) AS previous_avg_daily_sales
 , COALESCE(ROUND((avg_daily_sales - previous_avg_daily_sales) / previous_avg_daily_sales * 100, 2), 0) AS mom_percent_growth
FROM monthly_avg_daily_sales
ORDER BY month;
``` | This query aims to provide insights into the monthly average daily sales in the year 2011, comparing each month's performance with the previous month and presenting the results in a formatted manner. It's a way to analyze the growth or decline in sales on a month-to-month basis within the specified year. |
| Total Sales Per Month and<br><br>Month-Over-Month Percentage Change | ```sql
WITH sales_by_month AS (
 SELECT
   MONTH(InvoiceDate) AS month
 , ROUND(SUM(quantity * unitprice), 2) AS total_monthly_sales
 , ROUND(LAG(SUM(quantity * unitprice), 1) OVER (ORDER BY MONTH(InvoiceDate)), 2) AS previous_total_monthly_sales
 FROM sales_unique
 WHERE YEAR(InvoiceDate) = 2011
 GROUP BY MONTH(InvoiceDate)
)
SELECT
  month
 , DATE_FORMAT(CONCAT('2011-', month, '-01'), '%b') AS month_name
 , total_monthly_sales
 , COALESCE(previous_total_monthly_sales, 0) AS previous_total_monthly_sales
 , COALESCE(ROUND((total_monthly_sales - previous_total_monthly_sales) / previous_total_monthly_sales * 100, 2), 0) AS mom_percent_growth
FROM sales_by_month
ORDER BY month;
``` | This query analyzes the total monthly sales in the year 2011, comparing each month's sales with the previous month's sales and presenting the results in a formatted manner. It provides insights into how sales are changing on a month-to-month basis within the specified year. |
| Total Transactions by Month | ```sql
SELECT
  MONTH(InvoiceDate) AS month
 , DATE_FORMAT(InvoiceDate, '%b') AS month_name
 , COUNT(DISTINCT InvoiceNo) AS Total_Transactions
FROM sales_unique
GROUP BY MONTH(InvoiceDate), DATE_FORMAT(InvoiceDate, '%b')
ORDER BY MONTH(InvoiceDate);
``` | This query provides a breakdown of the total number of unique transactions for each month, along with the numeric month representation and abbreviated month name. |

Metric Name	SQL Code	What It Means
Total Units Sold by Month	```SELECT MONTH(InvoiceDate) AS month , DATE_FORMAT(InvoiceDate, '%b') AS month_name , COUNT(*) AS Total_Units_Sold FROM sales_unique GROUP BY MONTH(InvoiceDate), DATE_FORMAT(InvoiceDate, '%b') ORDER BY MONTH(InvoiceDate);```	This query provides a summary of the total units sold for each month. It breaks down the sales data based on months, providing both the numeric and abbreviated representations of the months.
Average Sales Per Transaction by Month	```WITH monthly_avg_sales_per_transaction AS (SELECT MONTH(InvoiceDate) AS month , ROUND(AVG(total_amount / transaction_count), 2) AS avg_sales_per_transaction FROM (SELECT InvoiceNo , InvoiceDate , SUM(Quantity * UnitPrice) AS total_amount , COUNT(DISTINCT InvoiceNo) AS transaction_count FROM sales_unique WHERE YEAR(InvoiceDate) = 2011 GROUP BY InvoiceNo, InvoiceDate) transactions GROUP BY MONTH(InvoiceDate)) SELECT month , DATE_FORMAT(CONCAT('2011-', month, '-01'), '%b') AS month_name , avg_sales_per_transaction FROM monthly_avg_sales_per_transaction ORDER BY month;```	This query analyzes the average sales per transaction for each month in the year 2011. It provides insights into how the average transaction value varies over the months.
Average Units Per Transaction by Month	```WITH monthly_avg_units_per_transaction AS (SELECT MONTH(InvoiceDate) AS month , ROUND(AVG(Quantity), 2) AS avg_units_per_transaction FROM sales_unique WHERE YEAR(InvoiceDate) = 2011 GROUP BY MONTH(InvoiceDate)) SELECT month , DATE_FORMAT(CONCAT('2011-', month, '-01'), '%b') AS month_name , avg_units_per_transaction FROM monthly_avg_units_per_transaction ORDER BY month;```	This query analyzes the average number of units sold per transaction for each month in the year 2011. It provides insights into how the average quantity of items purchased per transaction varies over the months

FAQ:

1. Why is there a sudden decline in the Total Monthly Sales on December?
   Answer: The sudden decline in Total Monthly Sales on December is most likely due to the fact that there were only 8 transaction dates in that month. This means that there were fewer opportunities for customers to make purchases.