Walmart Sales Date

The "walmartsalesdata" table appears to contain information related to sales transactions, including details such as invoice ID, branch, city, customer type, gender, product line, unit price, quantity, tax, total, date, time, payment method, cost of goods sold (cogs), gross margin percentage, gross income, and customer ratings. The dataset likely represents sales across different branches and cities, with information on customer demographics and preferences.

One can analyze this data to derive insights such as the total revenue, average ratings, and sales patterns based on product lines and customer types. The table allows for exploring the relationships between variables, understanding which products are popular among certain customer segments, and identifying key performance indicators like gross income and margin percentages. Additionally, the inclusion of date and time information enables temporal analysis, allowing for the examination of sales trends over specific periods. The dataset appears comprehensive and can be utilized for strategic decision-making, marketing strategies, and optimizing inventory based on customer preferences and regional variations.

```
select * from WalmartSalesData


--Retrieve the total number of records in the table--

select count(*) as total_records from WalmartSalesData;


-- List all unique branches in the dataset--

select distinct branch from WalmartSalesData


-- Find the average unit price for each product line--

select product_line, round(avg(unit_price),2) as avg_unit_price_product from
WalmartSalesData
group by product_line;


--Calculate the total quantity sold for each customer type--

select customer_type,SUM(quantity) as total_quantity_sold from WalmartSalesData
group by customer_type
```

```sql
--Identify the highest gross income in the dataset and display the associated details-

select top 1 * from WalmartSalesData order by gross_income desc;

---------------OR-----------
select * from WalmartSalesData
where gross_income = (select MAX(gross_income) from WalmartSalesData);


--List the cities where the average rating is above 4--

select round(AVG(rating),2) from WalmartSalesData where rating > 4;

select city, round(rating,2) as avg_rating from WalmartSalesData
where rating > (select round(AVG(rating),2) from WalmartSalesData where rating > 4)
group by city,rating
order by avg_rating desc;


--Retrieve the total sales (excluding tax) for each payment type--

select payment,(SUM(total)-SUM(tax_5)) as Total_sales from WalmartSalesData
group by payment


--Find the date with the highest total sales (including tax)--

select top 1 date,(SUM(total)+SUM(tax_5)) as Total_sales from WalmartSalesData
group by date
order by Total_sales desc


--Determine the most common product line among female customers--

select product_line, COUNT(product_line) as product_count, gender from
WalmartSalesData
where gender = 'Female'
group by product_line,gender
order by product_count desc;


--Calculate the average gross margin percentage for each branch--

select branch,round(avg(gross_margin_percentage),2) as GMP from WalmartSalesData
group by Branch


--How many unique cities does the data have?--

select distinct city from WalmartSalesData;


--What is the total revenue by month--

select Month(date),SUM(Total) as Total_revenue from WalmartSalesData
group by Month(date)


--What month had the largest COGS?--

select top 1 MONTH(date) as Month_, sum(cogs) as COGS from WalmartSalesData
group by MONTH(date)
```

```sql
order by COGS desc


--What product line had the largest revenue?--
select top 1 product_line, SUM(total) as Total_revenue from WalmartSalesData
group by Product_line,total
order by Total_revenue desc


--What is the city with the largest revenue?--

select branch,city, SUM(total) as Total_revenue from WalmartSalesData
group by branch,City
order by Total_revenue desc


--What product line had the largest VAT?--

select Product_line, AVG(tax_5) as largestVAT from WalmartSalesData
group by Product_line
order by largestVAT desc


--Fetch each product line and add a column to those product
-- line showing "Good", "Bad". Good if its greater than average sales--

select AVG(quantity) as avg_quantity from WalmartSalesData

select product_line, AVG(quantity) as avg_quantity,
    CASE when AVG(quantity) >6 then 'good' else 'bad'
end as remark from WalmartSalesData
group by product_line


--Which branch sold more products than average product sold?--

select branch,AVG(Quantity) as avg_quantity from WalmartSalesData
group by branch, Quantity
having AVG(quantity) > (select AVG(quantity) from WalmartSalesData)


--What is the most common product line by gender--

select product_line, gender , count(quantity) as sum_quantity from WalmartSalesData
group by product_line,gender
order by sum_quantity desc


--What is the average rating of each product line--

select product_line, AVG(rating) as avg_rating from WalmartSalesData
group by product_line
order by avg_rating desc;


--How many unique customer types does the data have?--

select COUNT(distinct invoice_ID) as unique_customers from WalmartSalesData;
```

```sql
--How many unique payment methods does the data have?--

select distinct payment from WalmartSalesData


--What is the most common customer type?--

select customer_type, COUNT(*) as count from WalmartSalesData
group by customer_type
order by count desc


--What is the gender of most of the customers?--

select COUNT(invoice_ID) as Customer_count, Gender from WalmartSalesData
group by gender
order by Customer_count desc


-- What is the gender distribution per branch?

select branch,gender, count(*) as gender_count from WalmartSalesData
group by Gender,branch
order by branch


-- Which time of the day do customers give most ratings?

select * from WalmartSalesData

select time, AVG(rating) as avg_rating from WalmartSalesData
group by time
order by avg_rating desc


-- Which day fo the week has the best avg ratings?

select datename(weekday,date) as dayofweek, avg(rating) as avg_rating from
WalmartSalesData
group by datename(weekday,date)
order by avg_rating desc


--Which day of the week has the best average ratings per branch?

select branch,datename(weekday,date) as dayofweek,avg(rating) as avg_rating from
WalmartSalesData
group by datename(weekday,date),branch
order by avg_rating desc
```