WALMART

SALES ANALYSIS

github.com/Aruncodings

DESCRIPTION

The Walmart Store Sales dataset covers weekly sales from 2010-02-05 to 2012-11-01 across multiple stores, with key attributes such as store number, sales, holiday flags, temperature, fuel price, CPI, and unemployment. Significant holidays like Super Bowl, Labour Day, Thanksgiving, and Christmas are included.

Question: What are the total sales for each store?

Purpose: To identify total sales and rank stores by performance, simplifying analysis of store-level revenue trends.

Query:

```
create view week_sale as

SELECT store,FLOOR(SUM(weekly_sales)) AS `total sales`
FROM walmart
GROUP BY store
ORDER BY `total sales` DESC;
```

	store	total sales
▶	20	301397792
	4	299543953
	14	288999911
	13	286517703
	2	275382440
	10	271617713
	27	253855916
	6	223756130
	1	222402808
	39	207445542
	19	206634862
	31	199613905
	23	198750617
	24	194016021
	11	193962786
	28	189263680

Question: How do sales during holiday weeks compare to non-holiday weeks?

Purpose: To compare the impact of holidays on sales by providing a clear breakdown of total revenue during holiday and non-holiday weeks.

Query:

```
create view total_sales_in_holiday as
SELECT floor(sum(Weekly_Sales)) as 'total sales',
    CASE
        WHEN Holiday_Flag = '0' THEN 'holiday'
        WHEN Holiday_Flag = '1' THEN 'working hours'
        ELSE 'unknown'
    END AS Holiday_Status
FROM Walmart
group by Holiday_Flag

select * from total_sales_in_holiday
```

	total sales	Holiday_Status
▶	6231919435	holiday
	505299551	working hours

Question: How do sales compare across different temperature ranges?

Purpose: To understand how sales performance varies across different temperature ranges, providing insights into weather conditions have an impact on sales.

Query:

```
SELECT CASE
        WHEN Temperature BETWEEN 30 AND 50 THEN '30-50 temp'
        WHEN Temperature BETWEEN 50 AND 70 THEN '50-70 temp'
        WHEN Temperature BETWEEN 70 AND 90 THEN '70-90 temp'
        ELSE 'above 90'
    END AS tempfall,
 AVG(Weekly_Sales) AS Average_Sales
 FROM Walmart
 GROUP BY
    CASE
        WHEN Temperature BETWEEN 30 AND 50 THEN '30-50 temp'
        WHEN Temperature BETWEEN 50 AND 70 THEN '50-70 temp'
        WHEN Temperature BETWEEN 70 AND 90 THEN '70-90 temp'
        ELSE 'above 90'
    END
 ORDER BY Average_sales desc
```

tempfall	Average_Sales
30-50 temp	1118766.5585228838
50-70 temp	1047742.4958795517
70-90 temp	1024004.511826877
above 90	950462.1127946124

Question: How do sales compare across different fuel price ranges?

Purpose: To analyze how fuel price fluctuations impact sales by categorizing fuel prices and calculating the average sales for each category.

Query:

```
SELECT
case when Fuel_Price between 2 and 2.5 then 'FP 2.5'
  when Fuel_Price between 2.5 and 3 then 'FP 3'
    when Fuel_Price between 3 and 3.5 then 'FP 3.5'
    when Fuel_Price between 3.5 and 4 then 'FP 4'
    else 'above 4'
end as fuel_price,
avg(Weekly_Sales) as 'average_sales'
from walmart
group by
case when Fuel_Price between 2 and 2.5 then 'FP 2.5'
  when Fuel_Price between 2.5 and 3 then 'FP 3'
    when Fuel_Price between 3 and 3.5 then 'FP 3.5'
    when Fuel_Price between 3.5 and 4 then 'FP 4'
    else 'above 4'
end
ORDER BY Average_sales desc
```

	fuel_price	average_sales
▶	FP 3.5	1062831.9698630138
	FP 4	1043484.3325295232
	FP 3	1040854.7036057685
	above 4	1039111.1837623763
	FP 2.5	470281.03

Question: How do sales compare across different unemployment rate ranges?

Purpose: To analyze how varying unemployment rates impact total sales, providing insights into how economic conditions affect store performance.

Query:

```
SELECT
    CASE
        WHEN Unemployment > 5 AND Unemployment < 6 THEN 'Above 5'
        WHEN Unemployment >= 6 AND Unemployment < 7 THEN '6-7 rate'
        WHEN Unemployment >= 7 AND Unemployment < 8 THEN '7-8 rate'
        ELSE 'Above 8'
    END AS unemployment_rate,
    floor(avg(Weekly_Sales)) AS total_sales
FROM Walmart
GROUP BY
    CASE
        WHEN Unemployment > 5 AND Unemployment < 6 THEN 'Above 5'
        WHEN Unemployment >= 6 AND Unemployment < 7 THEN '6-7 rate'
        WHEN Unemployment >= 7 AND Unemployment < 8 THEN '7-8 rate'
        ELSE 'Above 8'
    END;
```

unemployment_rate	total_sale
Above 8	1027405
7-8 rate	1174871
6-7 rate	910691
Above 5	1078752

Question: What are the average CPI and weekly sales during holiday weeks?

Purpose: To determine the average CPI (Consumer Price Index) and weekly sales performance during holiday weeks, helping assess the economic and sales trends tied to holidays.

Query:

```
WITH holi_flag AS (
    SELECT Holiday_flag, CPI, weekly_sales,
    CASE
        WHEN Holiday_flag = 0 THEN 'not_holiday'
        WHEN Holiday_flag = 1 THEN 'holiday'
    END AS holiday_listing
    FROM walmart
)
SELECT round(avg(CPI)) as 'cpi in holiday', round(avg(weekly_sales))as
'weeklysales in holiday',holiday_listing FROM holi_flag
where holiday_listing = 'holiday'
group by holiday_listing
```

cpi in holiday	weeklysales in holiday	holiday_listing
171	1122888	holiday