**QUESTIONS AND ANSWERS ON**

**Stock Market Analysis**

**1.Calculate Daily Price Difference for Each Stock?**

select stock\_id,price\_id,

highest\_price-lowest\_price as Price\_Difference

from stock\_prices;

**2.Get Running Total of Volume for Each Stock by Date?**

select stock\_id,price\_date,

sum(volume) over(partition by stock\_id order by price\_date) as Running\_Total\_Of\_Volume

from stock\_prices;

**3.Rank Stocks Based on Closing Price for a Given Date?**

select stock\_id,closing\_price,price\_date,

rank() over(partition by price\_date order by closing\_price) as Rank\_stock

from stock\_prices;

**4.Get the Highest Trade Price for Each Stock Over Time?**

select stock\_id,trade\_price,trade\_date,

max(trade\_price) over(partition by stock\_id order by trade\_date) as Highest\_Total\_Price

from trades;

**5.Calculate 3-Day Moving Average of Closing Price for Each Stock?**

select stock\_id,closing\_price,price\_date,

avg(closing\_price) over(partition by price\_date ORDER BY price\_date ROWS 2 PRECEDING ) as Avg\_3\_days\_stock

from stock\_prices;

**6.Find Stocks with Price Changes Greater than the Average on Each Date?**

SELECT stock\_id, price\_date, highest\_price - lowest\_price AS daily\_diff,

AVG(highest\_price - lowest\_price) OVER (PARTITION BY price\_date) AS avg\_daily\_diff

FROM Stock\_Prices

HAVING daily\_diff > avg\_daily\_diff;

**7.Identify the First Trade Date for Each Stock?**

select stock\_id,trade\_date,

min(trade\_date) over(partition by stock\_id) as First\_Trade\_Date

from trades;

**8.Calculate the Difference Between Closing Price and Previous Day's Closing Price?**

select stock\_id,closing\_price,

closing\_price-lag(closing\_price) OVER (PARTITION BY stock\_id ORDER BY price\_date) AS price\_diff

FROM Stock\_Prices;

**9.Find the Stock with Maximum Price Increase Over Time?**

SELECT stock\_id, closing\_price,

closing\_price - FIRST\_VALUE(closing\_price) OVER (PARTITION BY stock\_id ORDER BY price\_date) AS price\_increase

FROM Stock\_Prices;

**10.Rank Trades by Volume on Each Date?**

select stock\_id,trade\_date,trade\_volume,

dense\_rank() over(PARTITION BY stock\_id order by trade\_date) as Rank\_Trades\_by\_Volume

from trades;

**11.Find the First and Last Trading Day for Each Stock?**

select stock\_id,

min(trade\_date) as First\_Day,

max(trade\_date) as First\_Day

from trades

group by stock\_id;

**12.Calculate the Number of Days Between the First and Last Trade for Each Stock?**

SELECT stock\_id,

DATEDIFF(MAX(trade\_date), MIN(trade\_date)) AS days\_between\_trades

FROM Trades

GROUP BY stock\_id;

**13.Find Stocks That Traded on All Days of a Specific Month?**

SELECT stock\_id

FROM Trades

WHERE trade\_date BETWEEN '2024-09-01' AND '2024-09-30'

GROUP BY stock\_id

HAVING COUNT(DISTINCT trade\_date) = 30;

**14.Find the Stock with the Highest Volume on the Last Trading Day?**

SELECT stock\_id, trade\_date, trade\_volume

FROM Trades

WHERE trade\_date = (SELECT MAX(trade\_date) FROM Trades)

ORDER BY trade\_volume DESC

LIMIT 1;

**15.Find the Day with the Highest Total Market Volume?**

SELECT trade\_date, SUM(trade\_volume) AS total\_market\_volume

FROM Trades

GROUP BY trade\_date

ORDER BY total\_market\_volume DESC

LIMIT 1;