-->1 stocks which has increased by x percentage

```
select time_stamp, stock_symbol, inc_dec, price from
        stock_history
        where ((inc_dec/price)*100) > 2
```

-->2 stock_groups which has increased by x percentage

```
select time_stamp, group_symbol, inc_dec, price from
        stock_group_history
        where inc_dec > 500
```

-->3 opening for all stock_group for every day

```
SELECT * FROM
        stock_group_history
        WHERE EXTRACT(HOUR FROM time_stamp) = 9 AND EXTRACT(MINUTE FROM time_stamp) = 15 AND
EXTRACT(SECOND FROM time_stamp) = 0
        ORDER BY group_symbol;
```

-->4 opening for all stock for every day

```
select * from
        stock_history
        where extract(hour from time_stamp) = 9 and extract(minute from time_stamp) = 15 and extract(second from
time_stamp) = 0
        order by stock_symbol;
```

-->5 revenue of Upcomming IPO company

```
select cname , revenue from ipo natural join company
        where close_date > date('2024-04-04 09:14:00') or close_date is NULL ;
```

-->6 give the news of all PSU sector companies with company name.

```
select c.cname , c.ceo , news.title , news.description  from
        company as c
        join sector as sec
        on sec.cin = c.cin
                join news
                on news.cin = c.cin
                where sec.sector_name = 'PSU';
```

-->7 give username,user_id,stock_symbol and qty who had sold maximum number of stocks on 2024-04-03

```
select name as user_name,user_id,stock_symbol,qty from
        users natural join(
```

```
                select * from
                        orders
                        where order_type = 'SELL' and status='P' and date(order_time) = '2024-04-03');
-----------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->8 Give users name who have orderd stocks before 2024-04-02

select name as user,order_time,sname as stock_name,status from
        users
        natural join
                (orders
                join stocks
                on orders.stock_symbol=stocks.stock_symbol)
                where date(order_time) < '2024-04-02'
-----------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->9 selecting top 3 stocks which are in watchlist of maximum users and printing their user count,stock symbol,company
id,company name,market_capital,revenue

SELECT user_count,stock_symbol,cin as Company_ID,cname as Company_name,market_capital,revenue
        from company natural join (
                select cin,stock_symbol,user_count from stocks
                        natural join (
                        select stock_symbol,count(user_id) as user_count
                                from watchlist
                                group by stock_symbol
                                order by  user_count
                                desc limit 3));
-----------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->10 Give news of company to users accordingly to their current holdings

select name as User,sname as Stock,cname as Company,title as News_title,Description
from users
natural join
                (select user_id,sname,title,description,cname from holdings
                        natural join
                                (select stock_symbol,sname,title,description,cin,cname from stocks
                                        natural join
                                                (select title,description,cname,cin from company
                                                        natural join news)));
-----------------------------------------------------------------------------------------------------------------------
-----------------------------------------------


-->11 find the total and avg volume of top 3 traded company on 4th april , 2024

select
                sname,exchange, stock_symbol,
                sum(cast(volume as INT)) as total_vol,
                avg(cast(volume as INT)) as avg_vol from
                stock_history
                        natural join stocks
                                where time_stamp > '2024-04-04 09:14:00' and time_stamp < '2024-04-04 15:30:00'
                                group by sname,exchange,stock_symbol
                                order by total_vol desc limit 3;
```

```
-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->12 give top 5 bankname and its transaction count which had done maximum transactions

select count(transaction_id) as transaction_counts,bank_name from(
        select user_id,ifsc,transaction_id,bank_name from
                transactions
                natural join account
                        natural join bank_info)
                        group by bank_name
                        order by transaction_counts desc limit 5;
-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->13 give the top 3 users,user_id,stock_symbol,profit who had made maximum profit per stock.

select name as user_name,user_id,
          stock_symbol,sname as stock_name,
          (sold_price-bought_price) as "profit/stock" from(
                select name,ws.stock_symbol,hh.*,stocks.sname from
                holding_history as hh
                natural join users
                        join wallet_stock as ws
                        on hh.transaction_id = ws.transaction_id
                                natural join stocks )
                order by "profit/stock" desc limit 3;
-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->14 give the time at which the price is highest of such stock which are part of both stock group Nifty_50 and Nifty_bank

select
                time_stamp,
                max_price,
                stock_symbol from
                stock_history
                natural join(
                        select max(price) as max_price,stock_symbol from
                                stock_history natural join (
                                        select stock_symbol from
                                                member_of
                                                where group_symbol='NIFTY_50'
                                                intersect
                                                select stock_symbol from
                                                member_of
                                                where group_symbol='NIFTY_BANK')
                                        group by stock_symbol)
                where max_price = price;
-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->15 give the list of all user with their profil/loss details.

SELECT u.name,( SUM((sh.price - h.buy_price)*h.qty)) AS total_pl FROM
  holdings h
        JOIN
        users u
        ON h.user_id = u.user_id
```

```
                JOIN
                stock_history sh
                ON h.stock_symbol = sh.stock_symbol
                        WHERE sh.time_stamp = '2024-04-05 15:29:00'
                        GROUP BY u.name
                        ORDER BY u.name;
-------------------------------------------------------------------------------------------------------------------
-------------------------------------------------

-->16 if all users sell their current holding stocks on  2024-04-05 then give there maximum total profit of that user

select user_id,sum(profit) as total_profit from(
        select user_id,(max-buy_price)*qty as profit from
                holdings
                natural join  (
                        select stock_symbol,max(price) from
                                stock_history
                                where date(time_stamp) = '2024-04-05'
                                group by stock_symbol)
        ) group by user_id;
-------------------------------------------------------------------------------------------------------------------
-------------------------------------------------

-->17 List the Company name and CEO whose stocks are ordered most

select cname,ceo,ord_s as order_count from
        company natural join
                (select sum(ord_cnt) as ord_s,cin from(
                (select cin , stock_symbol,ord_cnt,sname,exchange from
                 stocks natural join
                        (select stock_symbol,count(order_id) as ord_cnt from
                        orders
                        where order_type = 'BUY' and status = 'P' group by stock_symbol)))
                        group by cin);
-------------------------------------------------------------------------------------------------------------------
-------------------------------------------------

-->18 give the list of upcoming it sector ipo whose market capital is greater than 1000 crores

select c.cin , c.cname,CAST(regexp_replace(c.market_capital, '[^\d]', '', 'g') AS INTEGER) AS cap from
        company as c
        join ipo
        on c.cin = ipo.cin
                join sector as sec
                on c.cin = sec.cin
                where sec.sector_name = 'IT service'
                and (ipo.open_date > CURRENT_DATE or ipo.open_date is NULL )
                and CAST(regexp_replace(c.market_capital, '[^\d]', '', 'g') AS INTEGER) > 1000;
-------------------------------------------------------------------------------------------------------------------
-------------------------------------------------

-->19 give the list of the company whose price is in between issue_price

select c.cname, s.sname ,s.stock_symbol, sh.open_price ,s.exchange  from
        ipo
        natural join
        company as c
                join stocks as s
                on c.cin = s.cin
```

```
                                join stock_history as sh
                                on s.stock_symbol = sh.stock_symbol
                                where listing_date = date(time_stamp )
                                and EXTRACT(HOUR FROM time_stamp) = 09
                                and EXTRACT(MINUTE FROM time_stamp) = 15
                                and CAST(SPLIT_PART(issue_price, '-', 1) AS INTEGER) < price
                                and CAST(SPLIT_PART(issue_price, '-', 1) AS INTEGER) > price ;
-------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->20 top three users with highest balance (available + hold + blocked)

SELECT U.user_id, U.name, U.available_balance,
        COALESCE(SUM(H.qty * H.buy_price) , 0) as Hold_balance,
        COALESCE(SUM(o.qty * o.price), 0) as Blocked_balance,
  (U.available_balance + COALESCE(SUM(H.qty * H.buy_price) , 0) + COALESCE(SUM(o.qty * o.price), 0)) AS Total_Balance
FROM
  users U
        LEFT JOIN
        holdings H ON U.user_id = H.user_id
                LEFT JOIN
                orders o ON U.user_id = o.user_id AND o.status = 'I'
                        GROUP BY U.user_id
                        ORDER BY Total_Balance DESC LIMIT 3;
-------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->21 Finding trading type and Buy/Sell time of each stock for Maximum profit user could have gained

select x.stock_symbol,x.sname,x.miniprice as minimum_Price,x.buy_time,y.maxprice as maximum_Price,y.sell_time ,
CASE
    WHEN buy_time > sell_time THEN 'Limit'
    ELSE 'Market'
                END AS Trading_Type
from(

        select buy_time,miniprice,r.stock_symbol,sname from
                (select time_stamp as buy_time,price as miniprice,stock_symbol from
                        stock_history
                        natural join(
                                (select min(price) as minp,stock_symbol from
                                        stock_history
                                        group by stock_symbol))
                                        where price = minp
                                        order by price) as r
                                        join stocks on stocks.stock_symbol=r.stock_symbol) as x

join(
        select sell_time,maxprice,b.stock_symbol,sname from
                (select time_stamp as sell_time,price as maxprice,stock_symbol from
                stock_history
                        natural join(
                                (select max(price) as maxp,stock_symbol from
                                        stock_history
                                        group by stock_symbol))
                                        where price = maxp
                                        order by price) as b
                                        join stocks on stocks.stock_symbol=b.stock_symbol) as y
                                                on x.stock_symbol = y.stock_symbol;
```

```
-----------------------------------------------------------------------------------------------------------------------------------------------

-->22 inc/dec for a particular time period for a given company.

SELECT
        r.sname,r.exchange ,
                ((r.previous_close_15_29 - r.open_price_09_15)/r.previous_close_15_29)*100 as inc
                FROM
                (SELECT
                        s.sname,s.exchange,
                        max(CASE WHEN sh.time_stamp = '2024-04-04 09:15:00' THEN sh.open_price END) AS
open_price_09_15,
                        max(CASE WHEN sh.time_stamp = '2024-04-04 15:29:00' THEN sh.previous_close END) AS
previous_close_15_29
                FROM
                        stocks as s
                JOIN
                stock_history as sh
                ON s.stock_symbol = sh.stock_symbol
                        WHERE sh.time_stamp IN ('2024-04-04 09:15:00', '2024-04-04 15:29:00')
                        GROUP BY s.sname,s.exchange) as r
                        order by inc desc limit 5;
-----------------------------------------------------------------------------------------------------------------------------------------------

-->23 inc/dec for a particular time period for a given company. (same as top gainer and top looser feature of grow from IT
sector )

SELECT
   r.sname,r.exchange ,
        ((r.previous_close_15_29 - r.open_price_09_15)/r.previous_close_15_29)*100 as inc FROM
        (SELECT
                s.sname,s.exchange,
                max(CASE WHEN sh.time_stamp = '2024-04-04 09:15:00' THEN sh.open_price END) AS
open_price_09_15,
                max(CASE WHEN sh.time_stamp = '2024-04-04 15:29:00' THEN sh.previous_close END) AS
previous_close_15_29
                FROM
                stocks as s
                        JOIN
                        stock_history as sh
                        ON s.stock_symbol = sh.stock_symbol
                                JOIN
                                company as c
                                on s.cin = c.cin
                                        JOIN
                                        sector as sec
                                        on sec.cin = c.cin
                                        WHERE
                                        sh.time_stamp IN ('2024-04-04 09:15:00', '2024-04-04 15:29:00') and
sec.sector_name = 'IT service'
                                        GROUP BY s.sname,s.exchange) as r ;
-----------------------------------------------------------------------------------------------------------------------------------------------

-->24 highest price of the IT sector LargeCap company for given date

SELECT r.cname,MAX(max_price) AS max_price FROM (
```

```
   SELECT comp.cname, s.sname, MAX(sh.price) AS max_price,sh.time_stamp FROM
   stocks AS s
            JOIN
                     stock_history AS sh
                     ON s.stock_symbol = sh.stock_symbol
                              JOIN
                              company AS comp
                              ON comp.cin = s.cin
                                       JOIN
                                       sector AS sec
                                       ON sec.cin = comp.cin
                                       WHERE
                                                sec.sector_name = 'IT service'
                                                AND s.stype = 'LargeCap'
                                                AND sh.time_stamp > '2024-04-04 09:14:00'
                                                AND sh.time_stamp < '2024-04-04 15:30:00'
                                                AND s.exchange = 'NSE'
                                       GROUP BY
                                                comp.cname,
                                                s.sname,
                                                sh.time_stamp
) AS r group by r.cname;
-------------------------------------------------------------------------------------------------------------
-----------------------------------------------

-->25 give list of the companies whose inc remain positive on 4th april in NIFTY 50;

SELECT
   r.sname,
   r.exchange,
   ((r.previous_close_15_29 - r.open_price_09_15) / r.previous_close_15_29) * 100 AS inc
FROM
   (SELECT
      s.sname,
      s.exchange,
      MAX(CASE WHEN sh.time_stamp = '2024-04-04 09:15:00' THEN sh.open_price END) AS open_price_09_15,
      MAX(CASE WHEN sh.time_stamp = '2024-04-04 15:29:00' THEN sh.previous_close END) AS previous_close_15_29
   FROM
   stocks AS s
                     JOIN
                     stock_history AS sh
                     ON s.stock_symbol = sh.stock_symbol
                              JOIN
                              member_of AS mem
                              ON s.stock_symbol = mem.stock_symbol
                              WHERE
                                       sh.time_stamp IN ('2024-04-04 09:15:00', '2024-04-04 15:29:00') AND
mem.group_symbol = 'NIFTY_50'
                              GROUP BY
                                       s.sname, s.exchange
            ) AS r
where (r.previous_close_15_29 - r.open_price_09_15) / r.previous_close_15_29 > 0 ;
-------------------------------------------------------------------------------------------------------------
-----------------------------------------------
```