Query Date, subquery

SELECT \* FROM `bootcamp-402414.data\_analytic.super\_store`

LIMIT 10 ;

select customer\_id, order\_date, ship\_date

FROM `bootcamp-402414.data\_analytic.super\_store`

LIMIT 10 ;

--- DATE\_ADD(date\_expression, INTERVAL int64\_expression date\_part)

SELECT DATE\_ADD(DATE '2023-10-22', INTERVAL 5 DAY) AS five\_days\_later; --- 2023-10-27

SELECT DATE\_ADD(DATE '2023-10-22', INTERVAL 10 DAY) AS ten\_days\_later; --- 2023-11-01

SELECT DATE\_ADD(DATE '2023-10-22', INTERVAL -10 DAY) AS ten\_days\_back; --- 2023-10-12

select customer\_id, Product\_name, order\_date, ship\_date

, DATE\_ADD(ship\_date, INTERVAL 10 DAY) AS ten\_days\_later\_from\_ship\_date

, DATE\_ADD(ship\_date, INTERVAL 1 MONTH) AS a\_month\_later\_from\_ship\_date

, DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

FROM `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

select \* from

  (

  select product\_name

  , count(\*) as total\_trx

  , min(days\_diff) as min\_days\_diff

  , max(days\_diff) as max\_days\_diff

  , avg(days\_diff) as avg\_days\_diff

  from

      (

      select customer\_id, Product\_name, order\_date, ship\_date

      , DATE\_ADD(ship\_date, INTERVAL 10 DAY) AS ten\_days\_later\_from\_ship\_date

      , DATE\_ADD(ship\_date, INTERVAL 1 MONTH) AS a\_month\_later\_from\_ship\_date

      , DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

      FROM `bootcamp-402414.data\_analytic.super\_store`

      ) as x

  --- where total\_trx > 50

  group by product\_name

  --- order by avg\_days\_diff asc

  having total\_trx > 10

  ) as y

order by 5 asc ;

select ship\_mode

  , count(\*) as total\_trx

  , min(days\_diff) as min\_days\_diff

  , max(days\_diff) as max\_days\_diff

  , avg(days\_diff) as avg\_days\_diff

  from

      (

      select customer\_id, Product\_name, order\_date, ship\_date, ship\_mode

      , DATE\_ADD(ship\_date, INTERVAL 10 DAY) AS ten\_days\_later\_from\_ship\_date

      , DATE\_ADD(ship\_date, INTERVAL 1 MONTH) AS a\_month\_later\_from\_ship\_date

      , DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

      FROM `bootcamp-402414.data\_analytic.super\_store`

      ) as x

  group by ship\_mode

;

--- DATE\_DIFF(date\_expression\_a, date\_expression\_b, date\_part)

SELECT DATE\_DIFF(DATE '2023-10-22', DATE '2023-10-28', DAY) AS days\_diff; --- (-6)

SELECT DATE\_DIFF(DATE '2023-10-28', DATE '2023-10-22', DAY) AS days\_diff; --- 6

SELECT

  DATE\_DIFF(DATE '2023-10-25', DATE '2023-10-23', DAY) AS days\_diff,

  DATE\_DIFF(DATE '2023-10-25', DATE '2023-10-23', WEEK) AS weeks\_diff,

  DATE\_DIFF(DATE '2023-10-25', DATE '2023-10-20', WEEK) AS weeks\_diff,

  DATE\_DIFF(DATE '2023-10-25', DATE '2020-10-20', YEAR) AS year\_diff,

  ;

--- DATE\_SUB(date\_expression, INTERVAL int64\_expression date\_part)

SELECT

  DATE\_ADD(DATE '2023-10-22', INTERVAL 5 DAY) AS five\_days\_later,

  DATE\_ADD(DATE '2023-10-22', INTERVAL -5 DAY) AS five\_days\_ago,

  DATE\_SUB(DATE '2023-10-22', INTERVAL 5 DAY) AS five\_days\_ago

;

      select customer\_id, Product\_name, order\_date, ship\_date, ship\_mode

      , DATE\_ADD(ship\_date, INTERVAL 10 DAY) AS ten\_days\_later\_from\_ship\_date

      , DATE\_ADD(ship\_date, INTERVAL 1 MONTH) AS a\_month\_later\_from\_ship\_date

      , DATE\_SUB(ship\_date, INTERVAL 10 DAY) AS ten\_days\_before\_from\_ship\_date

      , DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

      FROM `bootcamp-402414.data\_analytic.super\_store`

      limit 10 ;

--- EXTRACT

select customer\_id

, ship\_date

, extract(day from ship\_date) as ship\_date\_day

FROM `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

--- FORMAT DATE

SELECT FORMAT\_DATE('%b-%d-%Y', DATE '2008-12-25') AS formatted;

SELECT FORMAT\_DATE('%b %Y', DATE '2008-12-25') AS formatted;

-- This works because elements on both sides match.

SELECT PARSE\_DATE('%A %b %e %Y', 'Thursday Dec 25 2008')

-- This produces an error because the year element is in different locations.

SELECT PARSE\_DATE('%Y %A %b %e', 'Thursday Dec 25 2008')

-- This produces an error because one of the year elements is missing.

SELECT PARSE\_DATE('%A %b %e', 'Thursday Dec 25 2008')

-- This works because %F can find all matching elements in date\_string.

SELECT PARSE\_DATE('%F', '2000-12-30')

--- MM/DD/YY

SELECT ship\_date

, extract(day from ship\_date) as ship\_date\_day

FROM `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

--- YYYYMMDD

SELECT PARSE\_DATE('%Y%m%d', '20081225') AS parsed;

------------------------------------------ Super Store

select current\_date() as date\_now ;

--- DATE\_ADD(date\_expression, INTERVAL int64\_expression date\_part)

SELECT

  DATE\_ADD(DATE '2023-10-22', INTERVAL 5 DAY) AS five\_days\_later,

  DATE\_ADD(DATE '2023-10-22', INTERVAL 10 DAY) AS ten\_days\_later ;

select \*

FROM `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

select customer\_id, product\_name

from `bootcamp-402414.data\_analytic.super\_store`

where category in

    (

    select category from `bootcamp-402414.data\_analytic.super\_store`

    where category in ('Furniture','Technology')

    )

;

select customer\_id

, Quantity

, case

    when Quantity < 5 then 'Small'

    --- when Quantity between 5 and 10 then 'Medium'

    when Quantity >= 5 and Quantity <= 10 then 'Medium'

    else 'Large'

    end as Quantity\_group

from `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

select Quantity\_group

, count(\*) as total

from

  (

  select customer\_id

  , Quantity

  , case

      when Quantity < 5 then 'Small'

      --- when Quantity between 5 and 10 then 'Medium'

      when Quantity >= 5 and Quantity <= 10 then 'Medium'

      else 'Large'

      end as Quantity\_group

  from `bootcamp-402414.data\_analytic.super\_store`

  ) x

group by Quantity\_group

order by 2 desc ;

select order\_date, quantity, region

from `bootcamp-402414.data\_analytic.super\_store`

limit 10 ;

--- Central,  East, South,  West

select order\_date

, sum(quantity) as total\_quantity

, sum(case when region = 'Central' then quantity end) as Central\_quantity

, sum(case when region = 'East' then quantity end) as East\_quantity

, sum(case when region = 'South' then quantity end) as South\_quantity

, sum(case when region = 'West' then quantity end) as West\_quantity

from `bootcamp-402414.data\_analytic.super\_store`

group by 1 ;

select order\_date, region,

, sum(quantity) as total\_quantity

from `bootcamp-402414.data\_analytic.super\_store`

group by 1,2 ;

select sub\_category

, sum(quantity) as quantity

fromselect order\_date, region,

, sum(quantity) as total\_quantity

from `bootcamp-402414.data\_analytic.super\_store`

group by 1,2 ;

group by sub\_category

;

select category, ship\_mode

, sum(quantity)

from `bootcamp-402414.data\_analytic.super\_store`

group by category, ship\_mode ;

select ship\_date

, last\_day(ship\_date, month) as last

from `bootcamp-402414.data\_analytic.super\_store`

Big Query Harish

----Create table customer profile

Drop table if exists  FROM `hip-arcadia-402512.data\_analytic.customer\_profile`

create table `hip-arcadia-402512.data\_analytic.customer\_profile`as

select customer\_id, customer\_name, postal\_code, product\_id, order\_date, ship\_date

from `hip-arcadia-402512.data\_analytic.superstore`

;

select \* from `hip-arcadia-402512.data\_analytic.customer\_profile`

-------create table yang lain customer location

create table `hip-arcadia-402512.data\_analytic.customer\_location` as

select postal\_code, city, state, country\_region, region

from `hip-arcadia-402512.data\_analytic.superstore`

group by 1,2,3,4,5

;

SELECT \* from `hip-arcadia-402512.data\_analytic.customer\_location`;

-------create table product catalog

create table `hip-arcadia-402512.data\_analytic.product\_catalog` as

select product\_id, category, sub\_category, product\_name

from `hip-arcadia-402512.data\_analytic.superstore`

group by 1,2,3,4

;

SELECT \* from `hip-arcadia-402512.data\_analytic.product\_catalog`

------------create table customer segment

create table `hip-arcadia-402512.data\_analytic.customer\_segment` as

select customer\_name, segment

from `hip-arcadia-402512.data\_analytic.superstore`

group by 1,2

;

SELECT \* from `hip-arcadia-402512.data\_analytic.customer\_segment`

---------------------queryy select and where + sorting

SELECT distinct sub\_category from `hip-arcadia-402512.data\_analytic.product\_catalog`

SELECT \* from `hip-arcadia-402512.data\_analytic.product\_catalog`

WHERE sub\_category = 'Art';

---Query select and where + sorting

select \* from `hip-arcadia-402512.data\_analytic.customer\_profile`

where order\_date = date '2017-08-30'

select \* from  `hip-arcadia-402512.data\_analytic.customer\_profile`

where order\_date = date '2017-08-30’

select \* from  `hip-arcadia-402512.data\_analytic.customer\_profile`

where order\_date < date '2017-08-30' ;

select \* from `hip-arcadia-402512.data\_analytic.customer\_profile`

where product\_id like '%OFF%' ;

select \* from `bootcamp-402414.data\_analytic.customer\_profile`

where product\_id not like '%OFF%' ;

-----Query aggregation

select order\_date

, count(\*) as total\_trx

from `hip-arcadia-402512.data\_analytic.customer\_profile`

where product\_id like '%OFF%' and order\_date > date '2017-08-30'

group by order\_date

order by order\_date asc;

select order\_date

, count(\*) as total\_trx

from `hip-arcadia-402512.data\_analytic.customer\_profile`

where product\_id like '%OFF%' and order\_date > date '2017-08-30'

group by order\_date

having total\_trx > 10

order by order\_date asc ;

-----------------------------function date\_add + date\_diff

select customer\_id

, product\_id

, order\_date

, ship\_date

, DATE\_ADD(ship\_date, INTERVAL 10 DAY) AS ten\_days\_later\_from\_ship\_date

, DATE\_ADD(ship\_date, INTERVAL 2 MONTH) AS two\_months\_later\_from\_ship\_date

, DATE\_ADD(ship\_date, INTERVAL 1 YEAR) AS a\_year\_later\_from\_ship\_date

, DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

FROM `hip-arcadia-402512.data\_analytic.customer\_profile`;

-------------------------------function date\_sub dan date\_diff

select customer\_id

, product\_id

, order\_date

, ship\_date

, DATE\_SUB(ship\_date, INTERVAL 10 DAY) AS ten\_days\_back\_from\_ship\_date

, DATE\_SUB(ship\_date, INTERVAL 2 MONTH) AS two\_months\_back\_from\_ship\_date

, DATE\_SUB(ship\_date, INTERVAL 1 YEAR) AS a\_year\_back\_from\_ship\_date

, DATE\_DIFF(ship\_date, order\_date, DAY) AS days\_diff

, DATE\_DIFF(ship\_date, order\_date, WEEK) AS days\_diff

FROM `hip-arcadia-402512.data\_analytic.customer\_profile`;

----------------query function extract date

SELECT customer\_id

, ship\_date

, extract(DAY from ship\_date) as ship\_date\_day

, extract(WEEK from ship\_date) as ship\_date\_WEEK

, extract(MONTH from ship\_date) as ship\_date\_MONTH

, extract(YEAR from ship\_date) as ship\_date\_YEAR

FROM `hip-arcadia-402512.data\_analytic.customer\_profile`

limit 10 ;

------------------aggregation + having

select order\_date

, count(\*) as total\_trx

from `hip-arcadia-402512.data\_analytic.customer\_profile`

where product\_id like '%OFF%' and order\_date > date '2017-08-30'

group by order\_date

order by order\_date asc;

select order\_date

, count(\*) as total\_trx

from `hip-arcadia-402512.data\_analytic.customer\_profile`

where product\_id like '%OFF%' and order\_date > date '2017-08-30'

group by order\_date

having total\_trx > 10

order by order\_date asc ;

------------------------- Query left join

select \* from `hip-arcadia-402512.data\_analytic.product\_catalog`

;

select t1.\*, t2.category, t2.sub\_category, t2.product\_name

from `hip-arcadia-402512.data\_analytic.customer\_profile` t1

left join `hip-arcadia-402512.data\_analytic.product\_catalog` t2

on t1.product\_id = t2.product\_id

;

-----query diatas key parameternya itu product id

-----

select \* from `hip-arcadia-402512.data\_analytic.customer\_location`;

select t1.\*, t2.city, t2.state, t2.country\_region, t2.region

from `hip-arcadia-402512.data\_analytic.customer\_profile` t1

left join `hip-arcadia-402512.data\_analytic.customer\_location` t2

on t1.postal\_code = t2.postal\_code

;

---------------Query inner join

select t1.customer\_id, t1.customer\_name, t2.segment

from `hip-arcadia-402512.data\_analytic.customer\_profile` t1

left join `hip-arcadia-402512.data\_analytic.customer\_segment` t2

on t1.customer\_name = t2.customer\_name

;

select t1.customer\_id, t1.customer\_name, t2.segment

from `bootcamp-402414.data\_analytic.customer\_profile` t1

inner join

(select \* from `bootcamp-402414.data\_analytic.customer\_segment`

where segment = 'Consumer') t2

on t1.customer\_name = t2.customer\_name

;