EASTERN INTERNATIONAL UNIVERSITY Practice Assignment – Quarter 4, 2023-2024

SCHOOL OF COMPUTING Course Name: Database

AND INFORMATION TECHNOLOGY Course Code: CSE 301

≈□**∞** Student's Full Name:

Practice Assignment 4 Student ID:

Instruction:

* Students are allowing to write their answers (like SQL queries, Screen shot of outputs, etc.) in word file (Answer sheet) provided by instructor. After finishing the assignment, students must convert the word file (Answer sheet) into a PDF file. Finally, students upload the file in Moodle.

1. Give a database 'SaleManagerment':

Clients(Client_Number, Client_Name, Address, City, Pincode, Province, Amount_Paid, Amount_Due)

Product(<u>Product_Number</u>, Product_Name, Quantity_On_Hand, Quantity_Sell, Sell_Price, Cost_Price)

Salesman (Salesman Number, Salesman Name, Address, City, Pincode, Province, Salary, Sales_Target,

Target_Achieve, Phone)

Salesorder(Order_Number, Order_Date, Client_Number, Salesman_Number, Delivery_Status,

Delivery_Date, Order_Status)

Salesorderdetails(<u>Order_Number</u>, <u>Product_Number</u>, Order_Quantity)

Query Syntax:

SELECT col 1, function name(col 2)

FROM tablename

WHERE condition

GROUP BY column1, column2

HAVING Condition

ORDER BY column1, column2,.. ASC | DESC

LIMIT [offset,] row_count;

Practice in Class

- a) Using Logical Operators (AND, OR, NOT, LIKE, IN, BETWEEN) and Comparison Operators (=, >, <, >=, <=, <>)
 - 1. Show the all-clients details who lives in "Binh Duong".

- 2. Find the client's number and client's name who do not live in "Hanoi".
- 3. Identify the names of all products with less than 25 in stock.
- 4. Find the product names where company making losses.
- 5. Find the salesman's details who are able achieved their target.
- 6. Select the names and city of salesman who are not received salary between 10000 and 17000.
- 7. Show order date and the clients_number of who bought the product between '2022-01-01' and '2022-02-15'.

b) Finding strings in table

Pattern	Meaning
'a%'	Match strings that start with 'a'
'%a'	Match strings with end with 'a'
'a%t'	Match strings that contain the start with 'a' and end with 't'.
'%wow%'	Match strings that contain the substring 'wow' in them at any position.
'_wow%'	Match strings that contain the substring 'wow' in them at the second position.
'_a%'	Match strings that contain 'a' at the second position.
'a%'	Match strings that start with 'a and contain at least 2 more characters.

- 8. Find the names of cities in clients table where city name starts with "N"
- 9. Display clients' information whose names have "u" in third position.
- 10. Find the details of clients whose names have "u" in second last position.
- 11. Find the names of cities in clients table where city name starts with "D" and ends with "n".
- 12. Select all clients details who belongs from Ho Chi Minh, Hanoi and Da Lat.
- 13. Choose all clients data who do not reside in Ho Chi Minh, Hanoi and Da Lat.
- c) Using mySQL functions (Min(), Max(), COUNT(), AVG() and SUM())
 - 14. Find the average salesman's salary.
 - 15. Find the name of the highest paid salesman.
 - 16. Find the name of the salesman who is paid the lowest salary.
 - 17. Determine the total number of salespeople employed by the company.
 - 18. Compute the total salary paid to the company's salesman.
- d) Using Order by keyword, limit clause
 - 19. Select the salesman's details sorted by their salary.
 - 20. Display salesman names and phone numbers based on their target achieved (in ascending order) and their city (in descending order).
 - 21. Display 3 first names of the salesman table and the salesman's names in descending order.
 - 22. Find salary and the salesman's names who is getting the highest salary.
 - 23. Find salary and the salesman's names who is getting second lowest salary.

- 24. Display the first five sales orders in formation from the sales order table.
- 25. Display next ten sales order information from sales order table except first five sales order.
- e) Using group by with having clause with aggregate functions (COUNT(), MAX(), MIN(), SUM(), AVG()), order by.
 - 26. If there are more than one client, find the name of the province and the number of clients in each province, ordered high to low.
 - 27. Display information clients have number of sales order more than 1.

Practice to grade

Question: Using database 'SaleManagerment' to write SQL queries following:

28. Display the name and due amount of those clients who lives in "Hanoi"

```
-- 28. Display the name and due amount of those clients who live in "Hanoi".
308
309 •
         SELECT Client Name, Amount Due
         FROM Clients
310
         WHERE City = 'Hanoi';
311
312
                                           Export: Wrap Cell Content: IA
Result Grid
              Filter Rows:
   Client_Name
               Amount_Due
  Ho Nhu
              150.0000
  Tran Minh
              1000.0000
```

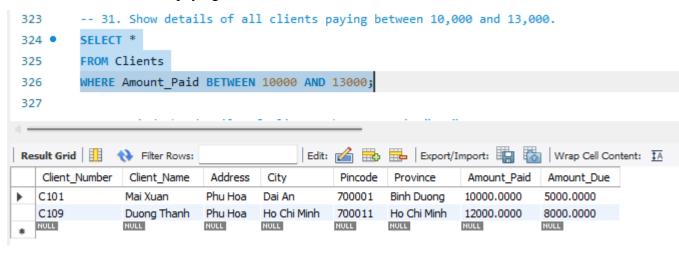
29. Find the clients details who has due more than 3000

```
313
          -- 29. Find the clients details who has due more than 3000.
         SELECT *
314 •
          FROM Clients
315
          WHERE Amount Due > 3000;
316
317
          -- 30. Find the clients name and their province who has no due.
318
Result Grid
              Filter Rows:
                                              Edit: 🍊 🖶 🖶 Export/Import: 🗓 🐻
                                                                                      Wrap Cell Content: TA
   Client_Number
                 Client_Name
                                Address
                                                     Pincode
                                                                          Amount_Paid
                                          City
                                                              Province
                                                                                        Amount_Due
   C101
                 Mai Xuan
                               Phu Hoa
                                         Dai An
                                                              Binh Duong
                                                     700001
                                                                          10000.0000
                                                                                       5000.0000
   C103
                 Trinh Huu
                               Phu Loi
                                         Da Lat
                                                     700051
                                                             Lam Dong
                                                                          7000.0000
                                                                                       3200.0000
   C107
                 Nguyen Thanh
                               Hoa Phu
                                         Dai An
                                                     700023
                                                              Binh Duong
                                                                          8500.0000
                                                                                       7500.0000
                                         Ho Chi Minh
   C109
                 Duong Thanh
                               Phu Hoa
                                                     700011
                                                              Ho Chi Minh
                                                                          12000.0000
                                                                                       8000,0000
  NULL
                NULL
                               NULL
                                         NULL
                                                     NULL
                                                             NULL
                                                                          NULL
                                                                                       NULL
```

30. Find the clients name and their province who has no due

```
-- 30. Find the clients name and their province who has no due.
318
319 •
         SELECT Client Name, Province
320
         FROM Clients
         WHERE Amount Due = 0;
321
322
         -- 31. Show details of all clients paying between 10,000 and 13,000.
323
         SELECT *
324 •
Result Grid
                                          Export: Wrap Cell Content: ‡A
              Filter Rows:
   Client_Name
              Province
 Tran Tuan
              Binh Duong
```

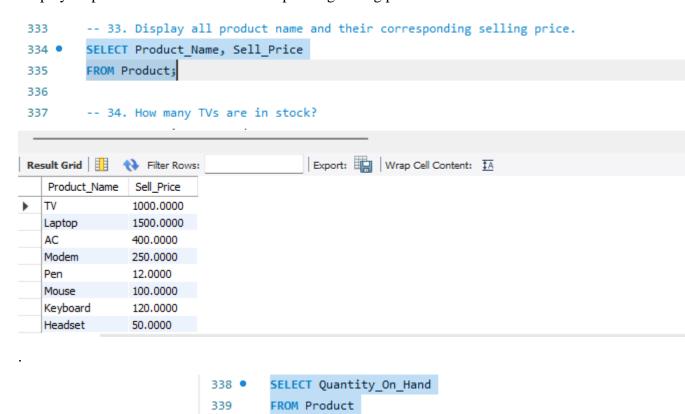
31. Show details of all clients paying between 10,000 and 13,000



32. Find the details of clients whose name is "Dat"

```
-- 32. Find the details of clients whose name is "Dat".
328
         SELECT *
329 •
         FROM Clients
330
         WHERE Client Name = 'Dat';
331
332
         -- 33. Display all product name and their corresponding selling price.
333
                                         Edit: 🝊 🖶 🖶 Export/Import: 📺 📸 Wrap Cell Content: 🏗
Client_Number
                Client_Name
                                                         Amount_Paid
                                                                     Amount_Due
                                   City
                                         Pincode
                                                 Province
                           Address
NULL
                                                NULL
                                                                    NULL
               NULL
                          NULL
                                  NULL
                                        NULL
                                                        NULL
```

33. Display all product name and their corresponding selling price



WHERE Product Name = 'TV';

SELECT *

Quantity_On_Hand

-- 35. Find the salesman's details who are not able

Export: Wrap Cell Co

?

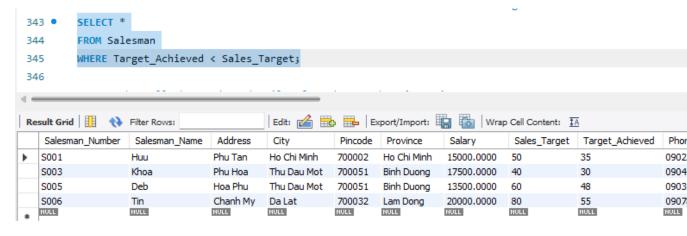
34. How many TVs are in stock

35. Find the salesman's details who are not able achieved their target

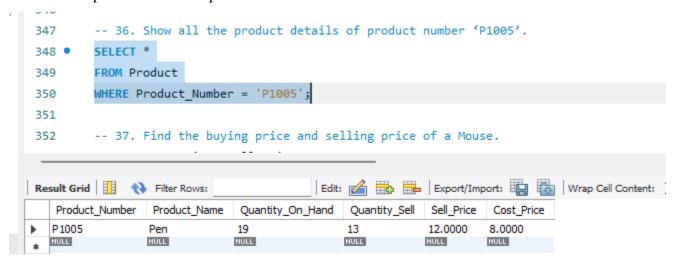
340

341

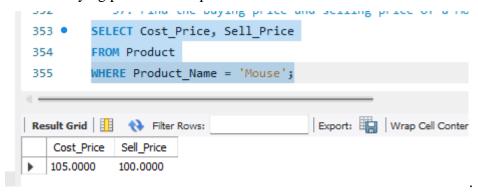
342



36. Show all the product details of product number 'P1005'



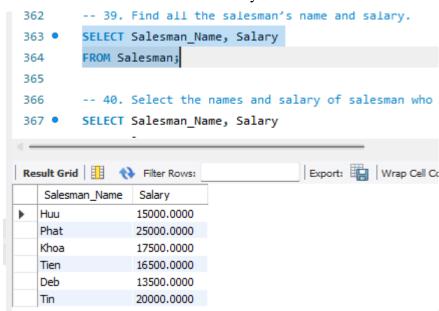
37. Find the buying price and sell price of a Mouse



38. Find the salesman names and phone numbers who lives in Thu Dau Mot

```
-- 38. Find the salesman names and phone numbers who live in Thu Dau Mot.
357
         SELECT Salesman Name, Phone
358 •
         FROM Salesman
359
         WHERE City = 'Thu Dau Mot';
360
361
                                       Export: Wrap Cell Content: IA
Salesman_Name
                Phone
   Khoa
                0904589632
   Deb
                0903213659
```

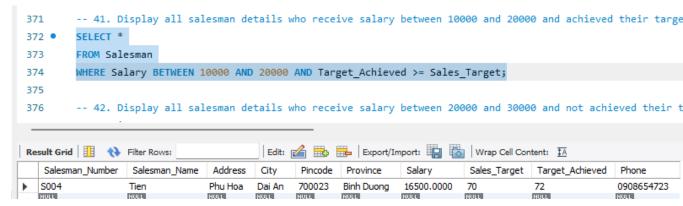
39. Find all the salesman's name and salary



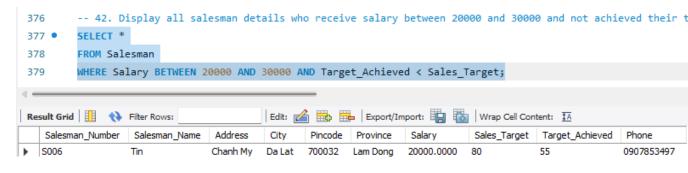
40. Select the names and salary of salesman who are received between 10000 and 17000



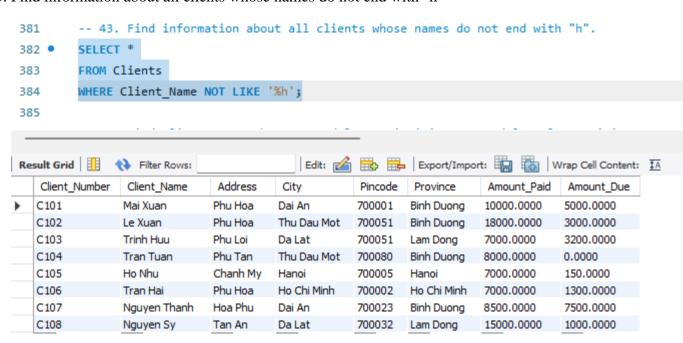
41. Display all salesman details who are received salary between 10000 and 20000 and achieved their target



42. Display all salesman details who are received salary between 20000 and 30000 and not achieved their target



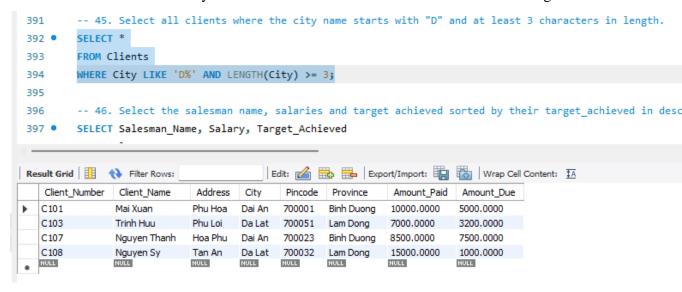
43. Find information about all clients whose names do not end with "h"



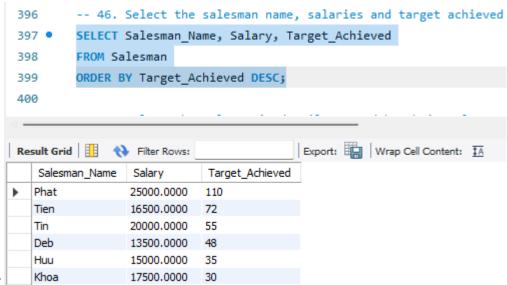
44. Find client names whose second letter is 'r' or second last letter 'a'

```
-- 44. Find client names whose second letter is 'r' or second last letter 'a'.
387 •
         SELECT Client Name
         FROM Clients
388
         WHERE Client Name LIKE ' r%' OR Client Name LIKE '%a ';
389
390
         -- 45. Select all clients where the city name starts with "D" and at least 3 character
391
                                          Export: Wrap Cell Content: IA
Result Grid
             Filter Rows:
   Client_Name
  Mai Xuan
  Le Xuan
  Trinh Huu
  Tran Tuan
  Tran Hai
  Tran Minh
```

45. Select all clients where the city name starts with "D" and at least 3 characters in length

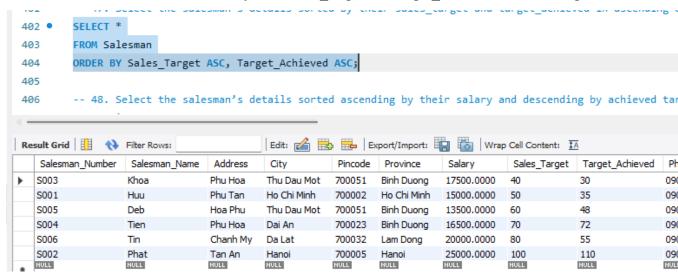


46. Select the salesman name, salaries and target achieved sorted by their target_achieved in

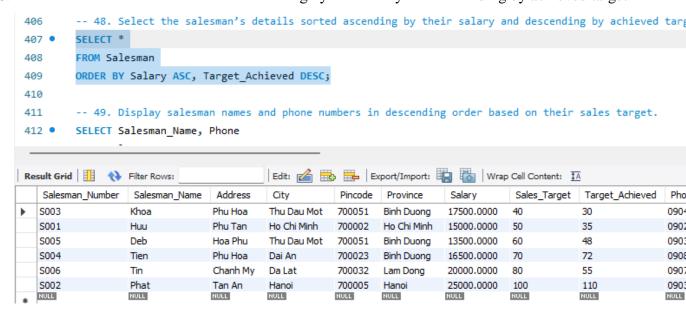


descending order

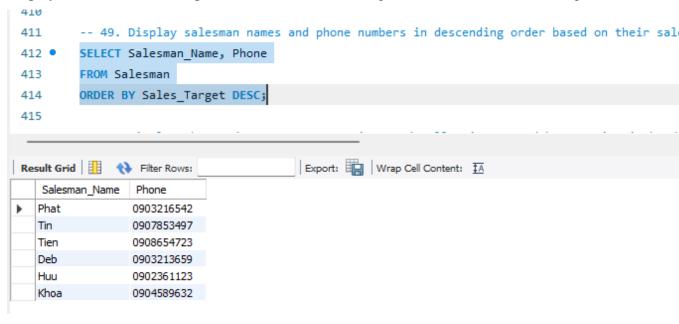
47. Select the salesman's details sorted by their sales_target and target_achieved in ascending order



48. Select the salesman's details sorted ascending by their salary and descending by achieved target

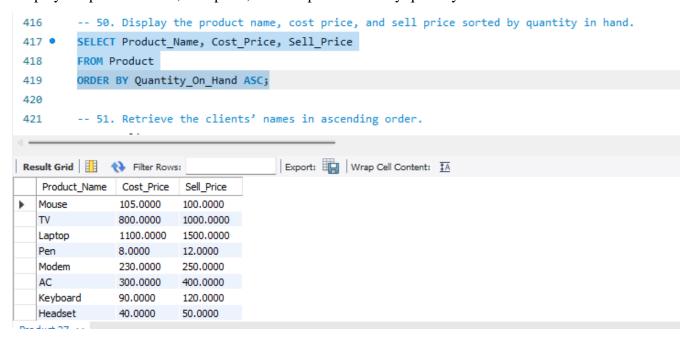


49. Display salesman names and phone numbers in descending order based on their sales target

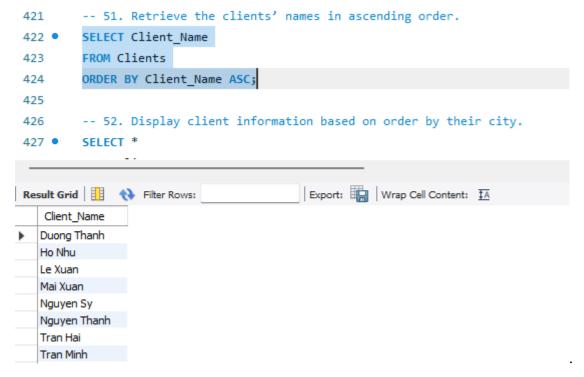


11

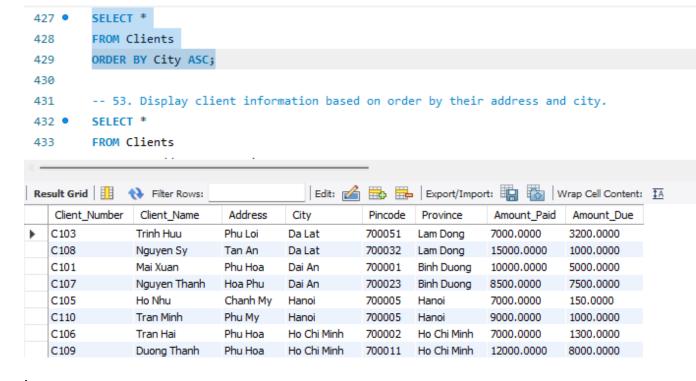
50. Display the product name, cost price, and sell price sorted by quantity in hand



51. Retrieve the clients' names in ascending order



52. Display client information based on order by their city



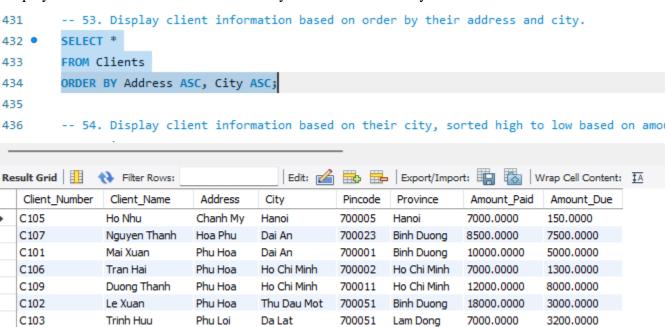
53. Display client information based on order by their address and city

Phu My

C110

Cliante 30 V

Tran Minh



700005

Hanoi

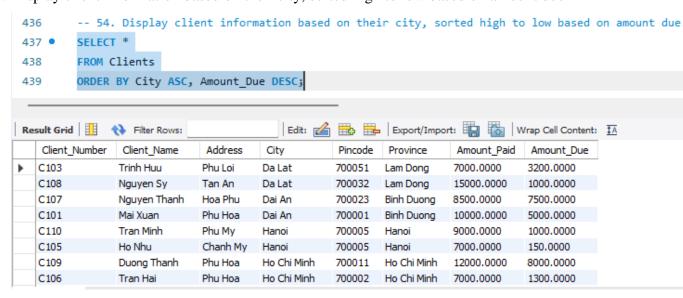
9000.0000

1000.0000

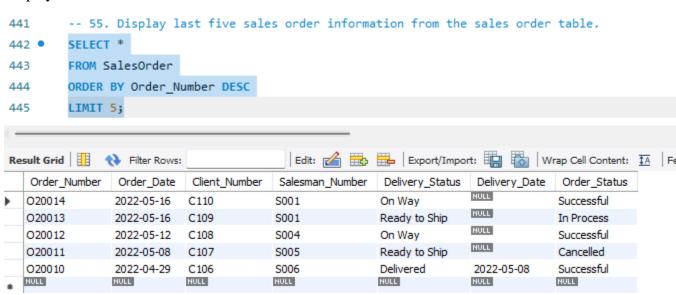
13

Hanoi

54. Display client information based on their city, sorted high to low based on amount due



55. Display last five sales order in formation from sales order table



56. Count the pincode in client table

```
447 -- 56. Count the pincode in the client table.

448 • SELECT COUNT(DISTINCT Pincode) AS Pincode_Count

449 FROM Clients;

450

451 -- 57. How many clients are living in Binh Duong?

...

Result Grid Filter Rows: Export: Wrap Cell Content

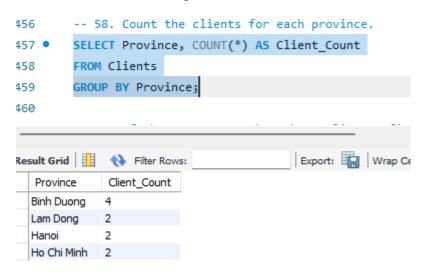
Pincode_Count

8 8 8
```

57. How many clients are living in Binh Duong

```
-- 57. How many clients are living in Binh Duong?
451
        SELECT COUNT(*) AS Client Count
452 •
        FROM Clients
453
        WHERE Province = 'Binh Duong';
454
455
        -- 58. Count the clients for each province.
456
        SELECT Province, COUNT(*) AS Client_Count
457 •
                                      Export: Wrap Cell Co
Client_Count
                                                         ?
```

58. Count the clients for each province.

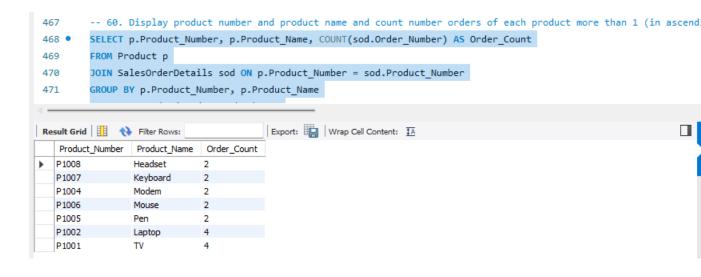


59. If there are more than three clients, find the name of the province and the number of clients in each province

```
-- 59. If there are more than three clients, find the name of the province and the number of clients in
461
        SELECT Province, COUNT(*) AS Client_Count
462 •
         FROM Clients
463
         GROUP BY Province
464
         HAVING COUNT(*) > 3;
465
466
                                      Export: Wrap Cell Content: IA
Client_Count
   Province
Binh Duong
```

60. Display product number and product name and count number orders of each product more than 1

(in ascending order)



61. Find products which have more quantity on hand than 20 and less than the sum of average.

