



## Practice Assignment 4

### Instruction:

\* Students are allowed 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 'SaleManagement':

Clients(**Client Number**, Client\_Name, Address, City, Pincode, Province, Amount\_Paid, Amount\_Due)

Product(**Product Number**, 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(**Order Number**, **Product Number**, 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”.

5 • SELECT \*  
6 from clients  
7 where province = 'Binh Duong';

<

<

2. Find the client’s number and client’s name who do not live in “Hanoi”.

```
8      -- 2.Find the client's number and cl:
9      • select client_number, client_name
10     from clients
11     where province <> 'ha noi';
```

Result Grid

Filter Rows:

Export

	client_number	client_name
▶	C101	Mai Xuan
	C102	Le Xuan
	C103	Trinh Huu
	C104	Tran Tuan
	C105	Ho Nhu
	C106	Tran Hai
	C107	Nguyen Thanh
	C108	Nguyen Sy
	C109	Duong Thanh
	C110	Tran Minh

3. Identify the names of all products with less than 25 in stock.

```
3 • select product_name
4   from product
5   where Quantity_On_Hand < 25;
```

Result Grid | Filter Rows:

product_name
TV
Laptop
AC
Modem
Pen
Mouse

4. Find the product names where company making losses.

```
16 -- 4.find the product names wher
17 • select Product_Name
18   from product
19   where Sell_Price <= Cost_Price;
```

< Filter Rows:

Product_Name
Mouse

5. Find the salesman's details who are able achieved their target.

```
21 • select *
22   from Salesman
23   where Target_Achieve >= Sales_Target;
```

Result Grid | Filter Rows:  | Edit: | Export/Import: | Wrap Cell Content:

	Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
▶	S002	Phat	Tan An	Hanoi	700005	Hanoi	25000	100	0903216542	110
	S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500	70	0908654723	72
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

6. Select the names and city of salesman who are not received salary between 10000 and 17000.

```

25 • select city
26     from Salesman
27     where Salary not between 10000 and 17000;

```

Result Grid | Filter Rows: | Export: |

	city
▶	Hanoi
	Thu Dau Mot
	Da Lat

7. Show order date and the clients\_number of who bought the product between '2022-01-01' and '2022-02-15'.

```

29 • select Order_Date, client_number
30     from SalesOrder
31     where Order_Date between '2022-01-01' and '2022-02-15';

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	Order_Date	client_number
▶	2022-01-15	C101
	2022-01-25	C102
	2022-01-31	C103
	2022-02-10	C104

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"

```
34 • select city
35 from clients
36 where city like 'N%';
```

Result Grid | Filter Rows:

city
------

9. Display clients' information whose names have "u" in third position.

```
38 • select *
39 from clients
40 where client_name like '__u%';
```

Result Grid | Filter Rows:  | Edit: | Export/Import: | Wrap Cell Conte

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
	C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

10. Find the details of clients whose names have "u" in second last position.

```
42 • select *
43 from clients
44 where client_name like '%u_';
```

Result Grid | Filter Rows:  | Edit: | Export/Import: | Wrap Cell C

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

11. Find the names of cities in clients table where city name starts with "D" and ends with "n".

```
46 • select city
47 from clients
48 where city like 'd%n';
```

Result Grid | Filter Rows:

city
▶ Dai An
Dai An



12. Select all clients details who belongs from Ho Chi Minh, Hanoi and Da Lat.

```

50 • select *
51   from clients
52   where city IN ('Ho Chi Minh', 'Hanoi', 'Da Lat');

```

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
	C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
	C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
	C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
	C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
	C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

13. Choose all clients data who do not reside in Ho Chi Minh, Hanoi and Da Lat.

```

54 • select *
55   from clients
56   where city not IN ('Ho Chi Minh', 'Hanoi', 'Da Lat');

```

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
	C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
	C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000
	C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

c) Using mySQL functions (Min(), Max(), COUNT(), AVG() and SUM())

14. Find the average salesman's salary.

```

59 • SELECT AVG(salary)
60   FROM salesman;

```

	AVG(salary)
▶	17916.6667

15. Find the name of the highest paid salesman.

```
62 • SELECT salesman_name
63 FROM salesman
64 WHERE salary = (SELECT MAX(salary) FROM salesman);
65 • select Salesman_Name from salesman order by salary desc limit 1;
66 -- 16.Find the name of the salesman who is paid the lowest salary.
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Salesman_Name
Phat

16. Find the name of the salesman who is paid the lowest salary.

```
67 • SELECT salesman_name
68 FROM salesman
69 WHERE salary = (SELECT MIN(salary) FROM salesman);
70 • select Salesman_Name from salesman order by salary limit 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | F

Salesman_Name
Deb

17. Determine the total number of salespeople employed by the company.

```
72 • SELECT COUNT(Salesman_Number)
73 FROM Salesman;
74 -- 18.Compute the total salary pa
```

Result Grid | Filter Rows: | E

COUNT(Salesman_Number)
6

18. Compute the total salary paid to the company's salesman.

```
75 • select sum(salary) from Salesman;
```

Result Grid | Filter Rows: | Exp

sum(salary)
107500

d) Using Order by keyword, limit clause

19. Select the salesman's details sorted by their salary.

```
78 • select * from salesman order by salary;
```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500	60	0903213659	48
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000	50	0902361123	35
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500	70	0908654723	72
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500	40	0904589632	30
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000	80	0907853497	55
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000	100	0903216542	110
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

20. Display salesman names and phone numbers based on their target achieved (in ascending order) and their city (in descending order).

```
80 • select salesman_name, phone from salesman order by Sales_Target , city desc;
```

```
81 -- 21.Display 3 first names of the salesman table and the salesman's names in
```

```
82 • select salesman_name from salesman order by salesman_name desc limit 3;
```

salesman_name	phone
Khoa	0904589632
Huu	0902361123
Deb	0903213659
Tien	0908654723
Tin	0907853497
Phat	0903216542

21. Display 3 first names of the salesman table and the salesman's names in descending order.

```
81 -- 21.Display 3 first names of the salesman table and the salesman's nam
```

```
82 • select salesman_name from salesman order by salesman_name desc limit 3;
```

salesman_name
Tin
Tien
Phat

22. Find salary and the salesman's names who is getting the highest salary.

```
84 • select salary, salesman_Name from salesman order by salary desc limit 1;
```

```
85 -- 23.Find salary and the salesman's names who is getting second lowest sal
```

```
86 • select salary, salesman_Name from salesman order by salary limit 1 offset 1
```

salary	salesman_Name
25000	Phat



23. Find salary and the salesman's names who is getting second lowest salary.

```
86 select salary, salesman_Name from salesman order by salary limit 1 offset 1;
```

salary	salesman_Name
15000	Huu

24. Display the first five sales orders in formation from the sales order table.

```
87 -- 24.Display the first five sales orders in formation from the sales order table.
88 select * from salesorder order by Order_Date desc limit 5;
89 -- 25.Display next ten sales order information from sales order table except first 5
90 select * from salesorder order by Order Date desc limit 10 offset 5;
```

Order_Number	Order_Date	Client_Number	Salesman_Number	Delivery_Status	Delivery_Date	Order_Status
O20013	2022-05-16	C109	S001	Ready to Ship	NULL	In Process
O20014	2022-05-16	C110	S001	On Way	NULL	Successful
O20016	2022-05-16	C109	S008	Ready to Ship	NULL	In Process
O20015	2022-05-12	C108	S007	On Way	2022-05-15	Successful
O20012	2022-05-12	C108	S004	On Way	NULL	Successful

25. Display next ten sales order information from sales order table except first five sales order.

```
89 -- 25.Display next ten sales order information from sales order table except first 5
90 select * from salesorder order by Order_Date desc limit 10 offset 5;
91 -- e)Using group by with having clause with aggregate functions (COUNT(), MAX(), MIN(), SUM(), AVG()), order by.
```

Order_Number	Order_Date	Client_Number	Salesman_Number	Delivery_Status	Delivery_Date	Order_Status
O20011	2022-05-08	C107	S005	Ready to Ship	NULL	Cancelled
O20010	2022-04-29	C106	S006	Delivered	2022-05-08	Successful
O20009	2022-04-24	C101	S004	On Way	NULL	Successful
O20008	2022-04-16	C102	S006	Ready to Ship	NULL	In Process
O20007	2022-04-03	C106	S001	Delivered	2022-05-08	Successful
O20006	2022-02-22	C105	S005	Ready to Ship	NULL	In Process
O20005	2022-02-18	C101	S003	On Way	NULL	Cancelled
O20004	2022-02-10	C104	S003	Delivered	2022-04-23	Successful
O20003	2022-01-31	C103	S002	Delivered	2022-04-03	Successful

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.

```

92  -- 20.11 there are more than one client, find the name of th
93  select count(client_number) as clients_num, province
94  from clients
95  group by province order by clients_num desc;
96  -- 27.Display information clients have number of sales order

```

Result Grid

	clients_num	province
▶	4	Binh Duong
	2	Lam Dong
	2	Hanoi
	2	Ho Chi Minh

27. Display information clients have number of sales order more than 1.

```

96  -- 27.Display information clients have number of sales order more than 1.
97  SELECT c.*
98  FROM clients c
99  JOIN (
100     SELECT Client_Number
101     FROM salesorder
102     GROUP BY Client_Number
103     HAVING COUNT(Order_Number) >1
104 ) o ON c.Client_Number = o.Client_Number;
105 -- 28.Display the name and due amount of those clients who lives in "Hanoi".

```

Result Grid

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
	C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
	C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
	C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
	C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000

## 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”.

```

106 select client_name, amount_due from clients where province like 'hanoi';
107 -- 29.Find the clients details who has due more than 3000.
108 select * from clients where Amount Due > 3000;

```

Result Grid

	client_name	amount_due
▶	Ho Nhu	150.0000
	Tran Minh	1000.0000

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

```

108 select * from clients where Amount_Due > 3000;
109 -- 30.Find the clients name and their province who has no due.

```

Result Grid

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	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
	C109	Duong Thanh	Phu Hoa	Ho Chi Minh	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.

```

110 select client_name, province from clients where Amount_Due=0;
111 -- 31.Show details of all clients paying between 10,000 and 13,000.
112 select * from clients where Amount_Paid between 10000 and 13000;
113 -- 32.Find the details of clients whose name is "Dat".

```

Result Grid

	client_name	province
▶	Tran Tuan	Binh Duong

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

```

112 select * from clients where Amount_Paid between 10000 and 13000;
113 -- 32.Find the details of clients whose name is "Dat".

```

Result Grid

	Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
▶	C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
	C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL



32. Find the details of clients whose name is “Dat”.

```

113 -- 32.Find the details of clients whose name is "Dat".
114 select client_name from clients where client_name like '%Dat%';
115 -- 33.Display all product name and their corresponding selling price.
116 select product_name, Sell_Price from product;
117 -- 34.How many TVs are in stock?

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

client_name
-------------

33. Display all product name and their corresponding selling price.

```

115 -- 33.Display all product name and their corresponding selli
116 select product_name, Sell_Price from product;
117 -- 34.How many TVs are in stock?

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

product_name	Sell_Price
TV	1000.0000
Laptop	1500.0000
AC	400.0000
Modem	250.0000
Pen	12.0000
Mouse	100.0000
Keyboard	120.0000
Headset	50.0000

34. How many TVs are in stock?

```

118 select product_name, Quantity_On_Hand from product where product_name like 'TV';
119 -- 35.Find the salesman's details who are not able achieved their target.
120 select * from salesman where Target_Achieve < Sales_Target;
121 -- 36.Show all the product details of product number 'P1005'.

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

product_name	Quantity_On_Hand
TV	10

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

```

119 -- 35.Find the salesman's details who are not able achieved their target.
120 select * from salesman where Target_Achieve < Sales_Target;
121 -- 36.Show all the product details of product number 'P1005'.

```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000	50	0902361123	35
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500	40	0904589632	30
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500	60	0903213659	48
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000	80	0907853497	55
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

122 select * from product where product_number like 'P1005';
123 -- 37.Find the buying price and sell price of a Mouse.

```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price
P1005	Pen	19	13	12.0000	8.0000
NULL	NULL	NULL	NULL	NULL	NULL

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

```

123 -- 37.Find the buying price and sell price of a Mouse.
124 select Sell_Price, Cost_Price from product where product_name like 'mouse';
125 -- 38.Find the salesman names and phone numbers who lives in Thu Dau Mot.

```

Sell_Price	Cost_Price
100.0000	105.0000

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

```

126 select Salesman_Name, phone from salesman where city like '%Thu Dau Mot%';
127 -- 39.Find all the salesman's name and salary.

```

Salesman_Name	phone
Khoa	0904589632
Deb	0903213659

39. Find all the salesman's name and salary.

```

128 select Salesman_Name , salary from salesman;
129 -- 40.Select the names and salary of salesman w

```

Salesman_Name	salary
Huu	15000
Phat	25000
Khoa	17500
Tien	16500
Deb	13500
Tin	20000



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

```

129 -- 40.Select the names and salary of salesman who are received between 10000 and
130 select Salesman_Name , salary from salesman where salary between 10000 and 17000;
131 -- 41.Display all salesman details who are received salary between 10000 and 2000

```

Salesman_Name	salary
Huu	15000
Tien	16500
Deb	13500

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

```

132 select * from salesman where salary between 10000 and 17000 and Sales_Target < Target_Achieve;
133 -- 42.Display all salesman details who are received salary between 20000 and 30000 and not achieved

```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500	70	0908654723	72
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

134 select * from salesman where salary between 10000 and 17000 and not Sales_Target < Target_Achieve;
135 -- 43.Find information about all clients whose names do not end with "h".

```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000	50	0902361123	35
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500	60	0903213659	48
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

136 select * from clients where Client_Name not like '%h';
137 -- 44.Find client names whose second letter is 'r' or second last letter 'a'.

```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

137  -- 44. Find client names whose second letter is 'r' or second last letter 'a'.
138  select client_name from clients where Client_Name like '_r%a_';
139  -- 45. Select all clients where the city name starts with "D" and at least 3 characters in length.

```

Result Grid

client_name
Tran Tuan
Tran Hai

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

```

140  select * from clients where city like 'd%' and length(city)> 3;
141  -- 46. Select the salesman name, salaries and target achieved sorted by their target_achieved in descending order.

```

Result Grid

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	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
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

46. Select the salesman name, salaries and target achieved sorted by their target\_achieved in descending order.

```

141  -- 46. Select the salesman name, salaries and target achieved sorted by their target_achieved in descending order.
142  select Salesman_Name, salary, Target_Achieve from salesman order by Target_Achieve desc;
143  -- 47. Select the salesman's details sorted by their sales_target and target_achieved in ascending order.

```

Result Grid

Salesman_Name	salary	Target_Achieve
Phat	25000	110
Tien	16500	72
Tin	20000	55
Deb	13500	48
Huu	15000	35
Khoa	17500	30

47. Select the salesman's details sorted by their sales\_target and target\_achieved in ascending order.

```

144  select * from salesman order by Sales_Target, Target_Achieve;
145  -- 48. Select the salesman's details sorted ascending by their salary and descending by achieved target.

```

Result Grid

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500	40	0904589632	30
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000	50	0902361123	35
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500	60	0903213659	48
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500	70	0908654723	72
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000	80	0907853497	55
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000	100	0903216542	110
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

46  select * from salesman order by salary, Target_Achieve desc;
47  -- 49.Display salesman names and phone numbers in descending order based on their sales target.

```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Phone	Target_Achieve
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500	60	0903213659	48
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000	50	0902361123	35
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500	70	0908654723	72
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500	40	0904589632	30
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000	80	0907853497	55
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000	100	0903216542	110
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

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

```

147  -- 49.Display salesman names and phone numbers in descending order based on their sales target.
148  select Salesman_Name, phone from salesman order by Sales_Target desc;
149  -- 50.Display the product name, cost price, and sell price sorted by quantity in hand.

```

Salesman_Name	phone
Phat	0903216542
Tin	0907853497
Tien	0908654723
Deb	0903213659
Huu	0902361123
Khoa	0904589632

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

```

150  select Product_Name, Cost_Price, Sell_Price from product order by Quantity_On_Hand;
151  -- 51.Retrieve the clients' names in ascending order.

```

Product_Name	Cost_Price	Sell_Price
Mouse	105.0000	100.0000
TV	800.0000	1000.0000
Laptop	1100.0000	1500.0000
Pen	8.0000	12.0000
Modem	230.0000	250.0000
AC	300.0000	400.0000
Keyboard	90.0000	120.0000
Headset	40.0000	50.0000



51. Retrieve the clients' names in ascending order.

```

151 -- 51.Retrieve the clients' names in ascending order.
152 select Client_Name from clients order by Client_Name;
153 -- 52.Display client information based on order by their city.

```

Result Grid

Client_Name
Duong Thanh
Ho Nhu
Le Xuan
Mai Xuan
Nguyen Sy
Nguyen Thanh
Tran Hai
Tran Minh
Tran Tuan

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52. Display client information based on order by their city.

```

153 -- 52.Display client information based on order by their city.
154 select * from clients order by city;
155 -- 53.Display client information based on order by their address and city.

```

Result Grid

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000

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

```

156 select * from clients order by address, city;
157 -- 54.Display client information based on their city, sorted high to low based on am

```

Result Grid

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000
C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000

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

```

157 -- 54.Display client information based on their city, sorted high to low based on
158 select * from clients order by city, Amount_Due desc;
159 -- 55.Display the data of sales orders depending on their delivery status from the

```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000

55. Display the data of sales orders depending on their delivery status from the current date to the old date.

```

160 select * from salesorder order by Delivery_Status desc, Order_Date desc;
161 -- 56.Display last five sales order in formation from sales order table.

```

Order_Number	Order_Date	Client_Number	Salesman_Number	Delivery_Status	Delivery_Date	Order_Status
O20013	2022-05-16	C109	S001	Ready to Ship	NULL	In Process
O20011	2022-05-08	C107	S005	Ready to Ship	NULL	Cancelled
O20008	2022-04-16	C102	S006	Ready to Ship	NULL	In Process
O20006	2022-02-22	C105	S005	Ready to Ship	NULL	In Process
O20014	2022-05-16	C110	S001	On Way	NULL	Successful
O20012	2022-05-12	C108	S004	On Way	NULL	Successful
O20009	2022-04-24	C101	S004	On Way	NULL	Successful
O20005	2022-02-18	C101	S003	On Way	NULL	Cancelled
O20010	2022-04-29	C106	S006	Delivered	2022-05-08	Successful

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

```

161 -- 56.Display last five sales order in formation from sales order table.
162 select * from salesorder order by Order_Date desc limit 5;
163 -- 57.Count the pincode in client table.
164 select count(pincode) as pincode count from clients;

```

Order_Number	Order_Date	Client_Number	Salesman_Number	Delivery_Status	Delivery_Date	Order_Status
O20013	2022-05-16	C109	S001	Ready to Ship	NULL	In Process
O20014	2022-05-16	C110	S001	On Way	NULL	Successful
O20012	2022-05-12	C108	S004	On Way	NULL	Successful
O20011	2022-05-08	C107	S005	Ready to Ship	NULL	Cancelled
O20010	2022-04-29	C106	S006	Delivered	2022-05-08	Successful
NULL	NULL	NULL	NULL	NULL	NULL	NULL



57. Count the pincode in client table.

```
163 -- 57.Count the pincode in client table.
164 select count(pincode) as pincode_count from clients;
165 -- 58.How many clients are living in Binh Duong?
```

<

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

pincode_count
10

58. How many clients are living in Binh Duong?

```
166 select count(province) as province_count from clients where province like 'binh duong';
167 -- 59.Count the clients for each province.
```

<

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

province_count
4

59. Count the clients for each province.

```
168 select count(Client_Number), province from clients group by province;
169 -- 60.If there are more than three clients, find the name of the province
```

<

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

count(Client_Number)	province
4	Binh Duong
2	Lam Dong
2	Hanoi
2	Ho Chi Minh

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

```
169 -- 60.If there are more than three clients, find the name of the province and the number of clients in
170 select count(Client_Number) , province
171 from clients
172 group by province
173 having count(Client_Number)>3;
174 -- 61.Display product number and product name
175 SELECT p.Product Number, p.Product Name, cnt.n
```

<

Result Grid | | Filter Rows:  | Export: | Wrap

count(Client_Number)	province
4	Binh Duong

each province.

61. Display product number and product name and count number orders of each product more than 1 (in ascending order).

```

175 SELECT p.Product_Number, p.Product_Name, cnt.num_orders
176 FROM product p
177 JOIN (
178     SELECT Product_Number, COUNT(DISTINCT Order_Number) AS num_orders
179     FROM salesorderdetails
180     GROUP BY Product_Number
181     HAVING COUNT(DISTINCT Order_Number) > 1
182 ) cnt ON p.Product_Number = cnt.Product_Number
183 ORDER BY cnt.num_orders ASC;
184 -- 62.Find products which have more quantity on hand than 20 and less than t

```

Result Grid

Product_Number	Product_Name	num_orders
P1008	Headset	2
P1007	Keyboard	2
P1004	Modem	2
P1006	Mouse	2
P1005	Pen	2
P1002	Laptop	4
P1001	TV	4

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

```

185 select * from product
186 where Quantity_On_Hand >20 and Quantity_On_Hand < (select avg(Quantity_On_Hand) from product);

```

Result Grid

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price
P1003	AC	23	10	400.0000	300.0000
P1004	Modem	22	16	250.0000	230.0000
NULL	NULL	NULL	NULL	NULL	NULL

Link github: <https://github.com/kaito7love/CSE301.git>