

**Practice Assignment 4**

Student's Full Name:

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(**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".

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".
29. Find the clients details who has due more than 3000.
30. Find the clients name and their province who has no due.
31. Show details of all clients paying between 10,000 and 13,000.
32. Find the details of clients whose name is "Dat".
33. Display all product name and their corresponding selling price.
34. How many TVs are in stock?
35. Find the salesman's details who are not able achieved their target.
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.
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'.
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.
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.
54. Display client information based on their city, sorted high to low based on amount due.
55. Display the data of sales orders depending on their delivery status from the current date to the old date.
56. Display last five sales order information from sales order table.
57. Count the pincode in client table.
58. How many clients are living in Binh Duong?
59. Count the clients for each province.
60. If there are more than three clients, find the name of the province and the number of clients in each province.
61. Display product number and product name and count number orders of each product more than 1 (in ascending order).
62. Find products which have more quantity on hand than 20 and less than the sum of average.