

CIS 11051 – PRACTICAL FOR DATABASE DESIGN
DEPARTMENT OF ICT
FACULTY OF TECHNOLOGY
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Lab Sheet: 09

Date:

Title: MySQL Aggregate Functions & Clauses

Aims:

- To work with MySQL Aggregate Functions & Clauses

Aggregate Functions

- SUM ()
- AVG ()
- COUNT ()
- MIN ()
- MAX ()

Clauses

- SELECT
- FROM
- WHERE
- GROUP BY
- HAVING
- ORDER BY
- LIMIT

Task 1:

1. Create a **database named lab9** and a **table named sales**, as shown below.

COLUMN NAME	CONSTRAINTS
ID	AUTO_INCREMENT, Primary key
PRODUCT_NAME	NOT NULL
AMOUNT_SOLD	NOT NULL
SALES_DATE	NOT NULL
CATEGORY	NULLABLE
DISCOUNT	NULLABLE

2. Insert below dataset to sales table

product_name	amount_sold	sales_date	category	discount
Laptop	50	2025-04-01	Electronics	5.00
Smartphone	30	2025-04-02	Electronics	NULL
Tablet	40	2025-04-03	Electronics	3.00
Headphones	70	2025-04-04	Accessories	2.50
Mouse	100	2025-04-05	Accessories	NULL
Keyboard	60	2025-04-06	Accessories	4.00
Monitor	20	2025-04-07	NULL	NULL

3. Find the total amount_sold for all products in the table.
4. What is the average amount_sold of all products in the table?
5. Which product has the highest amount sold, and how much was sold?
6. Which product has the lowest amount sold, and how much was sold?
7. How many products have been sold in total?
8. Get all products in the "Electronics" category that have sold more than 30 units.
9. Group the sales data by category and calculate the total sales for each category.
10. Find categories that have sold more than 100 units in total.
11. Show the products sorted by amount_sold in descending order.
12. Show the products sorted first by category in ascending order and then by amount_sold in descending order.
13. Get the first 3 products with the highest sales.
14. Retrieve the last 5 rows from the sales table based on sales_date.
15. Write an SQL query to retrieve 3 records from the sales table, starting from the 4th record (i.e., skipping the first 3). Display the product_name, amount_sold, and sales_date columns.

Discussion:

- Aggregate Functions, Clauses and their Practical usage