**HW**

**Ex1.**

CREATE TABLE sales (

product\_id INT,

date DATE,

revenue DECIMAL(10, 2)

);

INSERT INTO sales (product\_id, date, revenue)

VALUES

(1, '2024-09-15', 500.00),

(2, '2024-09-14', 300.00),

(3, '2024-09-13', 700.00),

(4, '2024-09-12', 600.00),

(5, '2024-09-11', 800.00);

SELECT product\_id, SUM(revenue) AS total\_revenue

FROM sales

GROUP BY product\_id

ORDER BY total\_revenue DESC;

**Ex2.**

CREATE TABLE employee\_salary (

employee\_id INT,

employee\_name VARCHAR(100),

department\_id INT,

salary DECIMAL(10, 2)

);

INSERT INTO employee\_salary (employee\_id, employee\_name, department\_id, salary)

VALUES

(1, 'Alice', 101, 5000.00),

(2, 'Bob', 102, 6000.00),

(3, 'Charlie', 101, 4500.00),

(4, 'David', 103, 7000.00),

(5, 'Eve', 102, 5500.00);

SELECT department\_id, AVG(salary) AS average\_salary

FROM employee\_salary

GROUP BY department\_id

ORDER BY average\_salary DESC;

**Ex3.**

CREATE TABLE monthly\_sales (

year INT,

month VARCHAR(255),

total\_sales DECIMAL(10, 2),

region VARCHAR(255)

);

INSERT INTO monthly\_sales (year, month, total\_sales, region) VALUES

(2023, 'January', 500.00, 'Almaty'),

(2022, 'February', 600.00, 'Atyrau'),

(2020, 'December', 450.00, 'Astana'),

(2021, 'November', 700.00, 'Taraz'),

(2019, 'October', 550.00, 'Aktau');

SELECT year, month, region, SUM(total\_sales)

FROM monthly\_sales

GROUP BY year, month, region

ORDER BY year ASC, month ASC;

**Ex4.**

CREATE TABLE employees (

employee\_id INT PRIMARY KEY,

salary DECIMAL(10, 2),

department\_id INT

);

CREATE TABLE departments (

department\_id INT PRIMARY KEY,

department\_name VARCHAR(100)

);

INSERT INTO departments (department\_id, department\_name) VALUES

(1, 'Sales'),

(2, 'Engineering'),

(3, 'Marketing');

INSERT INTO employees (employee\_id, salary, department\_id) VALUES

(101, 60000.00, 1),

(102, 80000.00, 2),

(103, 75000.00, 1);

SELECT d.department\_name, AVG(e.salary) AS average\_salary

FROM departments d

INNER JOIN employees e ON d.department\_id = e.department\_id

GROUP BY d.department\_name

ORDER BY average\_salary DESC;