*Alexandria University*
*Faculty of Engineering*
*Specialized Scientific Programs*
*Fall 2022*

*Computer & Communications Program*
*CC471, Database Systems*
*Instructor: Dr. Yousry Taha*
*Lab 4*

# Lab 4
# SQL (Structured Query Language)

## Objectives:

- Ability to write SQL queries.

- Using JOIN clause to relate rows from two or more tables.

- Using SQL aggregate functions to return a single value, calculated from values in a column.

## Database:

The following relations show basic entities of Order processing System. Implement the schema using DDL statements:-

**customer** (customer_id, customer_name, city)
**order** (order_id, order_date, customer_id)
**order_item**(order_id , item_id, quantity)
**item** (item_id, unit_price)
**shipment** (order_id, warehouse_id, ship_date)
**warehouse** (warehouse_id, warehouse_city)

**You can run the sample data insertion queries after creating the DB:**

Sample data

**SQL Queries:** please don't change the fields and tables naming

1. Write an SQL query to retrieve names of customers whose name starts with 'Ma'.
2. Write an SQL query to retrieve count of items and total price of each order.
3. Write an SQL query to retrieve order number for each order that had been shipped from warehouse in **'Arica'**.
4. Write an SQL query to retrieve total price of orders that had been shipped from warehouse #8.

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5. Write an SQL query to retrieve warehouse id, city, and count of orders shipped from this warehouse. The query should show all warehouses even if there are no orders had been shipped from this warehouse.

6. Write an SQL query to retrieve customer name, count of orders for each Customer even if the customer did not make any orders.

7. Write an SQL query to retrieve all items that have not been ordered.

## Notes:
- Please write the names of tables and columns as mentioned above to ensure that DML scripts run properly.

## Policies:

- You should work individually.
- You should deliver **DDL** scripts for database creation not using export from phpmyadmin and SQL scripts for the required queries.
- Late submission is allowed for one week with 80% of the total mark. No late submission is allowed after that