

Database Project

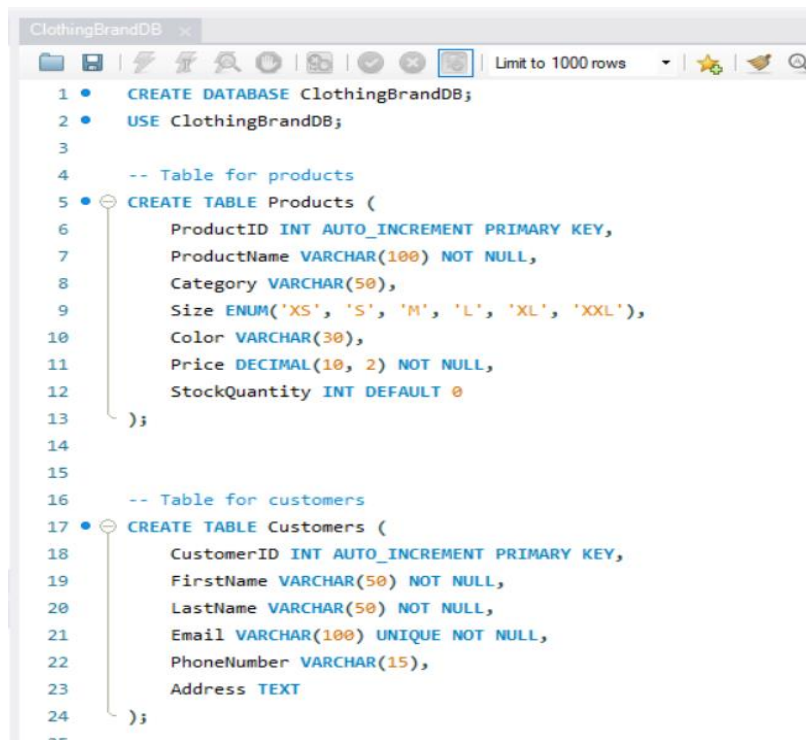
Presented to: Eng Rokaya

## Contents

Tables Code:.....	3
Insert Values: .....	6
Tables Database:.....	8
Queries:.....	11
ER Diagram:.....	14
Team Members:.....	15

## Tables Code:

1. Products
2. Customers
3. Discounts
4. Orders
5. Orders Details
6. Inventory
7. Suppliers



```
1 • CREATE DATABASE ClothingBrandDB;
2 • USE ClothingBrandDB;
3
4 -- Table for products
5 • CREATE TABLE Products (
6     ProductID INT AUTO_INCREMENT PRIMARY KEY,
7     ProductName VARCHAR(100) NOT NULL,
8     Category VARCHAR(50),
9     Size ENUM('XS', 'S', 'M', 'L', 'XL', 'XXL'),
10    Color VARCHAR(30),
11    Price DECIMAL(10, 2) NOT NULL,
12    StockQuantity INT DEFAULT 0
13 );
14
15
16 -- Table for customers
17 • CREATE TABLE Customers (
18     CustomerID INT AUTO_INCREMENT PRIMARY KEY,
19     FirstName VARCHAR(50) NOT NULL,
20     LastName VARCHAR(50) NOT NULL,
21     Email VARCHAR(100) UNIQUE NOT NULL,
22     PhoneNumber VARCHAR(15),
23     Address TEXT
24 );
25
```

```

25
26 -- Table for discounts
27 CREATE TABLE Discounts (
28     DiscountID INT AUTO_INCREMENT PRIMARY KEY,
29     DiscountName VARCHAR(100),
30     DiscountType ENUM('Percentage', 'Fixed'),
31     DiscountValue DECIMAL(10, 2) NOT NULL,
32     StartDate DATE NOT NULL,
33     EndDate DATE NOT NULL
34 );
35
36 -- Table for orders
37 CREATE TABLE Orders (
38     OrderID INT AUTO_INCREMENT PRIMARY KEY,
39     CustomerID INT NOT NULL,
40     DiscountID INT,
41     OrderDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
42     TotalAmount DECIMAL(10, 2) NOT NULL,
43     Status ENUM('Pending', 'Shipped', 'Delivered', 'Cancelled') DEFAULT 'Pending',
44     FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID),
45     FOREIGN KEY (DiscountID) REFERENCES Discounts(DiscountID)
46 );
--

```

```

48
49 -- Table for order details
50 CREATE TABLE OrderDetails (
51     OrderDetailID INT AUTO_INCREMENT PRIMARY KEY,
52     OrderID INT NOT NULL,
53     ProductID INT NOT NULL,
54     Quantity INT NOT NULL,
55     Price DECIMAL(10, 2) NOT NULL,
56     Subtotal DECIMAL(10, 2) AS (Quantity * Price) STORED,
57     FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),
58     FOREIGN KEY (ProductID) REFERENCES Products(ProductID)
59 );
60
61
62 -- Table for inventory
63 CREATE TABLE Inventory (
64     InventoryID INT AUTO_INCREMENT PRIMARY KEY,
65     ProductID INT NOT NULL,
66     QuantityChange INT NOT NULL,
67     ChangeReason ENUM('Restock', 'Sale', 'Adjustment') NOT NULL,
68     ChangeDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
69     FOREIGN KEY (ProductID) REFERENCES Products(ProductID)
70 );
71

```

```
71
72
73
74
75  -- Table for suppliers
76  ● ○ CREATE TABLE Suppliers (
77      SupplierID INT AUTO_INCREMENT PRIMARY KEY,
78      Name VARCHAR(100) NOT NULL,
79      ContactInfo VARCHAR(150),
80      SuppliedProducts TEXT
81  );
82
83
84
85
```

## Insert Values:

```
ClothingBrandDB
Limit to 1000 rows

92  -- Populate the Products table
93  • INSERT INTO Products (ProductName, Category, Size, Color, Price, StockQuantity)
94  VALUES
95  ('T-Shirt', 'Tops', 'M', 'Blue', 15.99, 50),
96  ('Jeans', 'Bottoms', 'L', 'Black', 39.99, 30),
97  ('Jacket', 'Outerwear', 'XL', 'Green', 59.99, 20),
98  ('Skirt', 'Bottoms', 'S', 'Red', 25.99, 40),
99  ('Sweater', 'Tops', 'M', 'Yellow', 35.99, 25),
100 ('Shirt', 'Tops', 'L', 'White', 29.99, 60),
101 ('Shorts', 'Bottoms', 'M', 'Blue', 19.99, 15),
102 ('Dress', 'Dresses', 'M', 'Pink', 49.99, 10),
103 ('Coat', 'Outerwear', 'L', 'Gray', 89.99, 5),
104 ('Blouse', 'Tops', 'S', 'Purple', 24.99, 35);
105
106  -- Populate the Customers table
107  • INSERT INTO Customers (FirstName, LastName, Email, PhoneNumber, Address)
108  VALUES
109  ('Alice', 'Smith', 'alice.smith@example.com', '1234567890', '123 Elm St'),
110  ('Bob', 'Johnson', 'bob.johnson@example.com', '0987654321', '456 Oak St'),
111  ('Charlie', 'Brown', 'charlie.brown@example.com', '1122334455', '789 Pine St'),
112  ('Diana', 'Prince', 'diana.prince@example.com', '6677889900', '101 Maple St'),
113  ('Eve', 'White', 'eve.white@example.com', '7788990011', '202 Birch St'),
114  ('Frank', 'Green', 'frank.green@example.com', '3344556677', '303 Cedar St'),
115  ('Grace', 'Hopper', 'grace.hopper@example.com', '4455667788', '404 Spruce St'),
116  ('Hank', 'Hill', 'hank.hill@example.com', '5566778899', '505 Walnut St'),
117  ('Ivy', 'Clark', 'ivy.clark@example.com', '6677889901', '606 Fir St'),
118  ('Jack', 'Brown', 'jack.brown@example.com', '7788990022', '707 Ash St');
119
120  -- Populate the Discounts table
121  • INSERT INTO Discounts (DiscountName, DiscountType, DiscountValue, StartDate, EndDate)
122  VALUES
123  ('Holiday Sale', 'Percentage', 10.00, '2024-12-01', '2024-12-31'),
124  ('Black Friday', 'Percentage', 20.00, '2024-11-25', '2024-11-30'),
125  ('Summer Sale', 'Fixed', 5.00, '2024-06-01', '2024-06-30'),
126  ('Clearance', 'Percentage', 15.00, '2024-01-01', '2024-01-15'),
127  ('VIP Discount', 'Fixed', 10.00, '2024-12-01', '2024-12-31');
128
129  • INSERT INTO Orders (CustomerID, DiscountID, TotalAmount, Status)
130  VALUES
131  (1, NULL, 55.97, 'Shipped'), -- NULL DiscountID is allowed
132  (2, 1, 89.97, 'Delivered'), -- DiscountID 1 exists in Discounts table
133  (3, 2, 45.99, 'Pending'), -- DiscountID 2 exists in Discounts table
134  (4, NULL, 25.99, 'Cancelled'), -- NULL DiscountID is allowed
135  (5, 3, 75.99, 'Shipped'), -- DiscountID 3 exists in Discounts table
136  (6, NULL, 39.99, 'Delivered'), -- NULL DiscountID is allowed
137  (7, 4, 59.99, 'Pending'), -- DiscountID 4 exists in Discounts table
138  (8, NULL, 49.99, 'Shipped'), -- NULL DiscountID is allowed
139  (9, 5, 89.99, 'Delivered'), -- DiscountID 5 exists in Discounts table
140  (10, NULL, 24.99, 'Pending'); -- NULL DiscountID is allowed
141
```

```
ClothingBrandDB x
Limit to 1000 rows

142 -- Populate the OrderDetails table
143 • INSERT INTO OrderDetails (OrderID, ProductID, Quantity, Price)
144 VALUES
145 (1, 1, 2, 15.99),
146 (1, 2, 1, 39.99),
147 (2, 3, 1, 59.99),
148 (2, 4, 2, 25.99),
149 (3, 5, 1, 35.99),
150 (4, 6, 1, 29.99),
151 (5, 7, 3, 19.99),
152 (6, 8, 2, 49.99),
153 (7, 9, 1, 89.99),
154 (8, 10, 1, 24.99);
155
156 -- Populate the Inventory table
157 • INSERT INTO Inventory (ProductID, QuantityChange, ChangeReason)
158 VALUES
159 (1, 50, 'Restock'),
160 (2, -10, 'Sale'),
161 (3, 20, 'Restock'),
162 (4, -5, 'Sale'),
163 (5, 15, 'Restock'),
164 (6, -8, 'Sale'),
165 (7, 25, 'Restock'),
166 (8, -2, 'Sale'),
167 (9, 5, 'Restock'),
168 (10, -3, 'Sale');
```

```
172 -- Populate the Suppliers table
173 • INSERT INTO Suppliers (Name, ContactInfo, SuppliedProducts)
174 VALUES
175 ('Alpha Textiles', '1234567890', 'T-Shirt,Jeans,Jacket'),
176 ('Beta Fabrics', '0987654321', 'Skirt,Sweater'),
177 ('Gamma Apparel', '1122334455', 'Shirt,Shorts,Dress'),
178 ('Delta Clothing', '6677889900', 'Coat,Blouse'),
179 ('Epsilon Wear', '7788990011', 'Jacket,Skirt');
```



## Tables Database:

Result Grid

Filter Rows:

Edit:

Export/Import:

Wrap

	CustomerID	FirstName	LastName	Email	PhoneNumber	Address
▶	1	Alice	Smith	alice.smith@example.com	1234567890	123 Elm St
	2	Bob	Johnson	bob.johnson@example.com	0987654321	456 Oak St
	3	Charlie	Brown	charlie.brown@example.com	1122334455	789 Pine St
	4	Diana	Prince	diana.prince@example.com	6677889900	101 Maple St
	5	Eve	White	eve.white@example.com	7788990011	202 Birch St
	6	Frank	Green	frank.green@example.com	3344556677	303 Cedar St
	7	Grace	Hopper	grace.hopper@example.com	4455667788	404 Spruce St
	8	Hank	Hill	hank.hill@example.com	5566778899	505 Walnut St
	9	Ivy	Clark	ivy.clark@example.com	6677889901	606 Fir St
	10	Jack	Brown	jack.brown@example.com	7788990022	707 Ash St
*	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid

Filter Rows:

Edit:

Export/Import:

	DiscountID	DiscountName	DiscountType	DiscountValue	StartDate	EndDate
▶	1	Holiday Sale	Percentage	10.00	2024-12-01	2024-12-31
	2	Black Friday	Percentage	20.00	2024-11-25	2024-11-30
	3	Summer Sale	Fixed	5.00	2024-06-01	2024-06-30
	4	Clearance	Percentage	15.00	2024-01-01	2024-01-15
	5	VIP Discount	Fixed	10.00	2024-12-01	2024-12-31
*	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid

Filter Rows:

Edit:

Export/Import:

	InventoryID	ProductID	QuantityChange	ChangeReason	ChangeDate
▶	1	1	50	Restock	2025-01-08 13:28:14
	2	2	-10	Sale	2025-01-08 13:28:14
	3	3	20	Restock	2025-01-08 13:28:14
	4	4	-5	Sale	2025-01-08 13:28:14
	5	5	15	Restock	2025-01-08 13:28:14
	6	6	-8	Sale	2025-01-08 13:28:14
	7	7	25	Restock	2025-01-08 13:28:14
	8	8	-2	Sale	2025-01-08 13:28:14
	9	9	5	Restock	2025-01-08 13:28:14
	10	10	-3	Sale	2025-01-08 13:28:14
*	NULL	NULL	NULL	NULL	NULL



Result Grid						
		Filter Rows:		Edit:		
	OrderDetailID	OrderID	ProductID	Quantity	Price	Subtotal
▶	1	1	1	2	15.99	31.98
	2	1	2	1	39.99	39.99
	3	2	3	1	59.99	59.99
	4	2	4	2	25.99	51.98
	5	3	5	1	35.99	35.99
	6	4	6	1	29.99	29.99
	7	5	7	3	19.99	59.97
	8	6	8	2	49.99	99.98
	9	7	9	1	89.99	89.99
	10	8	10	1	24.99	24.99
*	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid						
		Filter Rows:		Edit:		Export/Import:
	OrderID	CustomerID	DiscountID	OrderDate	TotalAmount	Status
▶	1	1	NULL	2025-01-08 13:28:14	55.97	Shipped
	2	2	1	2025-01-08 13:28:14	89.97	Delivered
	3	3	2	2025-01-08 13:28:14	45.99	Pending
	4	4	NULL	2025-01-08 13:28:14	25.99	Cancelled
	5	5	3	2025-01-08 13:28:14	75.99	Shipped
	6	6	NULL	2025-01-08 13:28:14	39.99	Delivered
	7	7	4	2025-01-08 13:28:14	59.99	Pending
	8	8	NULL	2025-01-08 13:28:14	49.99	Shipped
	9	9	5	2025-01-08 13:28:14	89.99	Delivered
	10	10	NULL	2025-01-08 13:28:14	24.99	Pending
*	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid							
		Filter Rows:		Edit:		Export/Import:	
	ProductID	ProductName	Category	Size	Color	Price	StockQuantity
▶	1	T-Shirt	Tops	M	Blue	15.99	50
	2	Jeans	Bottoms	L	Black	39.99	30
	3	Jacket	Outerwear	XL	Green	59.99	20
	4	Skirt	Bottoms	S	Red	25.99	40
	5	Sweater	Tops	M	Yellow	35.99	25
	6	Shirt	Tops	L	White	29.99	60
	7	Shorts	Bottoms	M	Blue	19.99	15
	8	Dress	Dresses	M	Pink	49.99	10
	9	Coat	Outerwear	L	Gray	89.99	5
	10	Blouse	Tops	S	Purple	24.99	35
★	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid






Filter Rows:



Edit:

	SupplierID	Name	ContactInfo	SuppliedProducts
▶	1	Alpha Textiles	1234567890	T-Shirt,Jeans,Jacket
	2	Beta Fabrics	0987654321	Skirt,Sweater
	3	Gamma Apparel	1122334455	Shirt,Shorts,Dress
	4	Delta Clothing	6677889900	Coat,Blouse
	5	Epsilon Wear	7788990011	Jacket,Skirt
•	NULL	NULL	NULL	NULL

## Queries:

```
-- Insert Query
INSERT INTO Products (ProductName, Category, Size, Color, Price, StockQuantity)
VALUES ('Hoodie', 'Outerwear', 'M', 'Black', 45.99, 20);
```

Result Grid |   Filter Rows:  | Edit:    | Export/Import

	ProductID	ProductName	Category	Size	Color	Price	StockQuantity
	1	T-Shirt	Tops	M	Blue	15.99	50
	2	Jeans	Bottoms	L	Black	39.99	30
	3	Jacket	Outerwear	XL	Green	59.99	20
	4	Skirt	Bottoms	S	Red	25.99	40
	5	Sweater	Tops	M	Yellow	35.99	25
	6	Shirt	Tops	L	White	29.99	60
	7	Shorts	Bottoms	M	Blue	19.99	15
	8	Dress	Dresses	M	Pink	49.99	10
	9	Coat	Outerwear	L	Gray	89.99	5
	10	Blouse	Tops	S	Purple	24.99	35
	11	Hoodie	Outerwear	M	Black	45.99	20
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
-- Update Query
UPDATE Customers
SET Address = '789 Updated Address St'
WHERE CustomerID = 3;
```

Result Grid

Filter Rows:

Edit:

Export/Import:

Wrap Cell Content

	CustomerID	FirstName	LastName	Email	PhoneNumber	Address
▶	1	Alice	Smith	alice.smith@example.com	1234567890	123 Elm St
	2	Bob	Johnson	bob.johnson@example.com	0987654321	456 Oak St
	3	Charlie	Brown	charlie.brown@example.com	1122334455	789 Updated Address St
	4	Diana	Prince	diana.prince@example.com	6677889900	101 Maple St
	5	Eve	White	eve.white@example.com	7788990011	202 Birch St
	6	Frank	Green	frank.green@example.com	3344556677	303 Cedar St
	7	Grace	Hopper	grace.hopper@example.com	4455667788	404 Spruce St
	8	Hank	Hill	har hank.hill@example.com	5566778899	505 Walnut St
	9	Ivy	Clark	ivy.clark@example.com	6677889901	606 Fir St
	10	Jack	Brown	jack.brown@example.com	7788990022	707 Ash St
•	NULL	NULL	NULL	NULL	NULL	NULL

```

25  -- Join Query 1
26  SELECT Orders.OrderID, Customers.FirstName, Customers.LastName, Orders.TotalAmount
27  FROM Orders
28  JOIN Customers ON Orders.CustomerID = Customers.CustomerID;
29

```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
OrderID	FirstName	LastName	TotalAmount
1	Alice	Smith	55.97
2	Bob	Johnson	89.97
3	Charlie	Brown	45.99
4	Diana	Prince	25.99
5	Eve	White	75.99
6	Frank	Green	39.99
7	Grace	Hopper	59.99
8	Hank	Hill	49.99
9	Ivy	Clark	89.99
10	Jack	Brown	24.99

```

10  -- Join Query 2
11  SELECT OrderDetails.OrderID, Products.ProductName, OrderDetails.Quantity, OrderDetails.Subtotal
12  FROM OrderDetails
13  JOIN Products ON OrderDetails.ProductID = Products.ProductID;
14

```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
OrderID	ProductName	Quantity	Subtotal
1	T-Shirt	2	31.98
1	Jeans	1	39.99
2	Jacket	1	59.99
2	Skirt	2	51.98
3	Sweater	1	35.99
4	Shirt	1	29.99
5	Shorts	3	59.97
6	Dress	2	99.98
7	Coat	1	89.99
8	Blouse	1	24.99

14 • `SELECT * FROM Orders WHERE Status = 'Pending';`

Result Grid						
Filter Rows: <input type="text"/>						
Edit:    Export/Import:   Wrap Cell Content:						
	OrderID	CustomerID	DiscountID	OrderDate	TotalAmount	Status
▶	3	3	2	2025-01-08 13:28:14	45.99	Pending
	7	7	4	2025-01-08 13:28:14	59.99	Pending
	10	10	NULL	2025-01-08 13:28:14	24.99	Pending
*	NULL	NULL	NULL	NULL	NULL	NULL

-- Select Query

`SELECT * FROM Orders WHERE Status = 'Pending';`

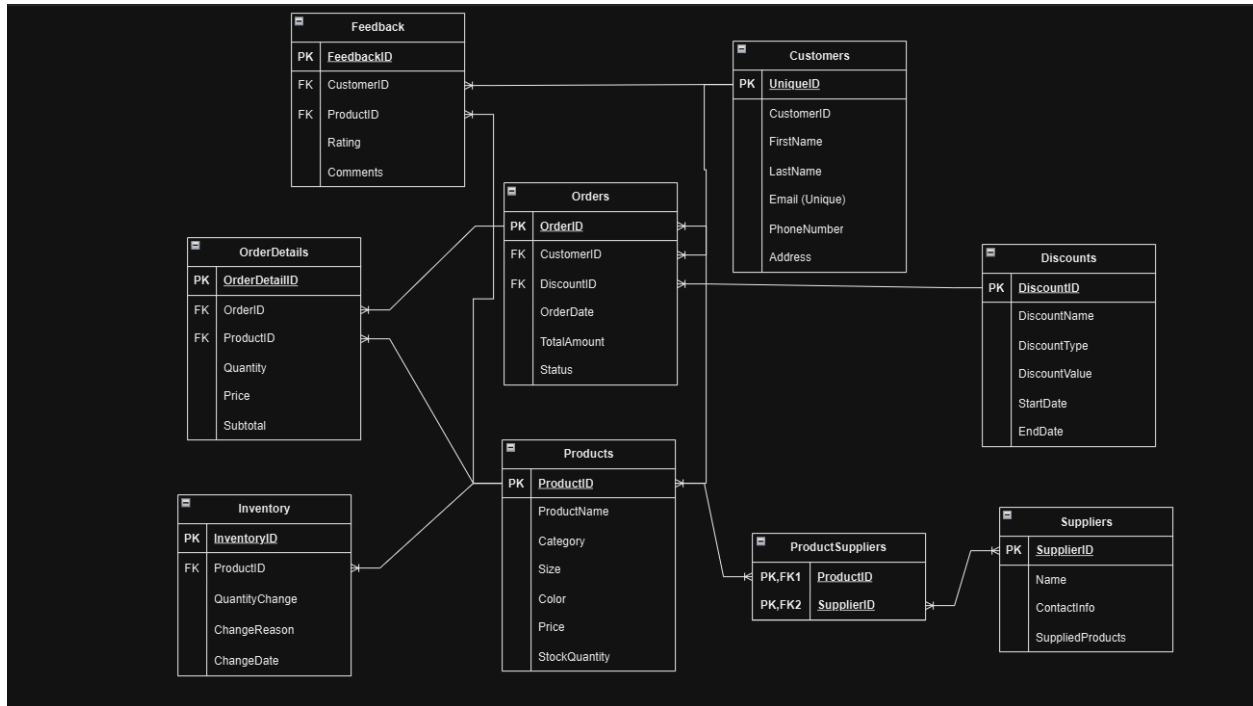
```
17 SELECT Category, COUNT(*) AS TotalProducts
18 FROM Products
19 GROUP BY Category;
20
21 -- Aggregate Function Query 2
```

Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap		
	Category	TotalProducts
▶	Tops	4
	Bottoms	3
	Outerwear	3
	Dresses	1

```
22 • SELECT AVG(Price) AS AveragePrice, MAX(Price) AS MaxPrice, MIN(Price) AS MinPrice
23 FROM Products;
24
25 -- Join Query 1
```

Result Grid			
Filter Rows: <input type="text"/>			
Export:  Wrap Cell Content:			
	AveragePrice	MaxPrice	MinPrice
▶	39.899091	89.99	15.99

## ER Diagram:





## Team Members:

1. Mazen Hamada 221006326: Customer Table + Products Table + Insert Query + Delete Query.
2. Omar Mamduh 221002668: Discounts Table + ER Diagram + Update Query + Select Query.
3. Joyce Maher 221006910: Orders Table + Orders Details Table + 2 Joins Queries.
4. Mohamed Ahmed 221005054: Inventory Table + Suppliers Table + 2 Select using aggregate functions Queries.