

*PART 1: SQL – DDL and DML Tasks*

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Create and execute an SQL script that performs the following:

**1. Create a new MySQL database.**

- Attached at the bottom is a screen shot taken of my coded from my MySQL Workbench and here is the first step into creating a database.

```
# Creating a New DataBase for inventory system
CREATE DATABASE IF NOT EXISTS inventory_db;
USE inventory_db;
```

**2. Select the database for use.**

- Using USE to use the data base we just created.

```
USE inventory_db;
```

**3. Create at least two tables with appropriate fields, data types, and primary key.**

- We now try to make 2 TABLE using CREATE TABLE with the names of [items] and [suppliers].

```
# Creating the supplier's Table
DROP TABLE IF EXISTS suppliers;

CREATE TABLE suppliers (
    supplier_id INT AUTO_INCREMENT PRIMARY KEY,
    supplier_name VARCHAR(255) NOT NULL,
    contact VARCHAR(100)
);

# This Creates the [items] table with a foreign key to [suppliers]
DROP TABLE IF EXISTS items;

CREATE TABLE items (
    id INT AUTO_INCREMENT PRIMARY KEY,
    barcode VARCHAR(50) UNIQUE,
    name VARCHAR(255) NOT NULL,
    quantity INT,
    price FLOAT,
    brand VARCHAR(255),
    supplier_id INT,
    FOREIGN KEY (supplier_id) REFERENCES suppliers(supplier_id)
);
```

**4. Insert a minimum of 10 records into each table.**

- Inputting a sample data.

```
# Inserting 10 Records in the Table
INSERT INTO suppliers (supplier_name, contact) VALUES
('Stationery World', 'contact@stationeryworld.com'),
('Office Supplies Co.', 'info@officesupplies.com'),
('School Essentials', 'support@schoolessentials.com'),
('Paper & Ink', 'sales@paperandink.com'),
('Fast Delivery', 'service@fastdelivery.com'),
('Bright Ideas', 'hello@brightideas.com'),
('Creative Supplies', 'contact@creativesupplies.com'),
('Mega Office', 'info@megaoffice.com'),
('Supplies Plus', 'support@suppliesplus.com'),
('Quality Goods', 'sales@qualitygoods.com');

# Inserting 10 records into [items] while assigning supplier_id for each
INSERT INTO items (barcode, name, quantity, price, brand, supplier_id) VALUES
('1001', 'Pencil', 50, 0.50, '2B', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Stationery World')),
('1002', 'Eraser', 40, 0.20, 'CleanCo', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Office Supplies Co.')),
('1003', 'Notebook', 30, 2.50, 'NotePro', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'School Essentials')),
('1004', 'Marker', 20, 1.00, 'ColorMax', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Paper & Ink')),
('1005', 'Pen', 100, 0.75, 'WriteWell', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Fast Delivery')),
('1006', 'Ruler', 25, 1.50, 'MeasureUp', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Bright Ideas')),
('1007', 'Scissors', 15, 3.00, 'CutRight', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Creative Supplies')),
('1008', 'Glue', 35, 1.25, 'StickIt', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Mega Office')),
('1009', 'Stapler', 10, 4.00, 'FastFix', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Supplies Plus')),
('1010', 'Highlighter', 60, 0.90, 'BrightMark', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Quality Goods'));
```



7. Write at least five *SELECT* statements that retrieve specific records based on different criteria (e.g., filtering, ordering, etc.).

- CODE;

```
# 1. Select all items that cost more than 1.00, ordered by price descending
SELECT * FROM items WHERE price > 1.00 ORDER BY price DESC;
```

- Output;

```
58
59 # 1. Select all items that cost more than 1.00, ordered by price descending
60 • SELECT * FROM items WHERE price > 1.00 ORDER BY price DESC;
61
```

Result Grid						
Filter Rows:						
	id	barcode	name	quantity	price	supplier_id
9	1009	Stapler	10	4	FastFix	9
7	1007	Scissors	15	3	CutRight	7
3	1003	Notebook	30	2.5	NotePro	3
6	1006	Ruler	25	1.5	MeasureUp	6
8	1008	Glue	35	1.25	StickIt	8
	NULL	NULL	NULL	NULL	NULL	NULL

- CODE (2);

```
# 2. Select all items from a specific brand
SELECT * FROM items WHERE brand = 'CleanCo';
```

- Output (2);

```
61
62 # 2. Select all items from a specific brand
63 • SELECT * FROM items WHERE brand = 'CleanCo';
64
```

Result Grid						
Filter Rows:						
	id	barcode	name	quantity	price	supplier_id
2	1002	Eraser	40	0.2	CleanCo	2
	NULL	NULL	NULL	NULL	NULL	NULL

- CODE (3);

```
# 3. Select items where quantity is less than 20
SELECT * FROM items WHERE quantity < 20;
```

- Output (3);

```
64
65 # 3. Select items where quantity is less than 20
66 • SELECT * FROM items WHERE quantity < 20;
```

Result Grid						
Filter Rows:						
	id	barcode	name	quantity	price	supplier_id
7	1007	Scissors	15	3	CutRight	7
9	1009	Stapler	10	4	FastFix	9
	NULL	NULL	NULL	NULL	NULL	NULL

- CODE (4);

```
# 4. Select all suppliers with "Office" in their name
SELECT * FROM suppliers WHERE supplier_name LIKE '%Office%';
```

- Output (4);

```
67
68 # 4. Select all suppliers with "Office" in their name
69 • SELECT * FROM suppliers WHERE supplier_name LIKE '%Office%';
70
```

Result Grid		
Filter Rows:		
supplier_id	supplier_name	contact
2	Office Supplies Co.	info@officesupplies.com
8	Mega Office	info@megaoffice.com
	NULL	NULL

- CODE (5);

```
# 5. Select items ordered alphabetically by name
SELECT * FROM items ORDER BY name ASC;
```

- Output (5);

```
71 # 5. Select items ordered alphabetically by name
72 • SELECT * FROM items ORDER BY name ASC;
73
```

Result Grid						
Filter Rows:						
	id	barcode	name	quantity	price	supplier_id
2	1002	Eraser	40	0.2	CleanCo	2
8	1008	Glue	35	1.25	StickIt	8
10	1010	Highlighter	60	0.9	BrightMark	10
4	1004	Marker	20	1	ColorMax	4
3	1003	Notebook	30	2.5	NotePro	3
5	1005	Pen	100	0.75	WriteWell	5
6	1006	Ruler	25	1.5	MeasureUp	6
7	1007	Scissors	15	3	CutRight	7
9	1009	Stapler	10	4	FastFix	9
	NULL	NULL	NULL	NULL	NULL	NULL

- FULL OUTPUT;

```
//
78 # Checking ALL items & Suppliers in combined table
79 • SELECT
80     i.id,
81     i.barcode,
82     i.name,
83     i.quantity,
84     i.price,
85     i.brand,
86     s.supplier_name,
87     s.contact
88 FROM items i JOIN suppliers s ON i.supplier_id = s.supplier_id;
//
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	id	barcode	name	quantity	price	brand	supplier_name	contact
▶	2	1002	Eraser	40	0.2	CleanCo	Office Supplies Co.	info@officesupplies.com
	3	1003	Notebook	30	2.5	NotePro	School Essentials	support@schoolessentials.com
	4	1004	Marker	20	1	ColorMax	Paper & Ink	sales@paperandink.com
	5	1005	Pen	100	0.75	WriteWell	Fast Delivery	service@fastdelivery.com
	6	1006	Ruler	25	1.5	MeasureUp	Bright Ideas	hello@brightideas.com
	7	1007	Scissors	15	3	CutRight	Creative Supplies	contact@creativesupplies.com
	8	1008	Glue	35	1.25	StickIt	Mega Office	info@megaoffice.com
	9	1009	Stapler	10	4	FastFix	Supplies Plus	support@suppliesplus.com
	10	1010	Highlighter	60	0.9	BrightMark	Quality Goods	sales@qualitygoods.com

[CODE]	# Inserting 10 Records in the Table
# Creacting a New DataBase for inventory system	INSERT INTO suppliers (supplier_name, contact) VALUES
CREATE DATABASE IF NOT EXISTS inventory_db;	('Stationery World', 'contact@stationeryworld.com'),
USE inventory_db;	('Office Supplies Co.', 'info@officesupplies.com'),
	('School Essentials', 'support@schoolessentials.com'),
# Creating the supplier's Table	('Paper & Ink', 'sales@paperandink.com'),
DROP TABLE IF EXISTS suppliers;	('Fast Delivery', 'service@fastdelivery.com'),
CREATE TABLE suppliers (	('Bright Ideas', 'hello@brightideas.com'),
supplier_id INT AUTO_INCREMENT PRIMARY KEY,	('Creative Supplies', 'contact@creativesupplies.com'),
supplier_name VARCHAR(255) NOT NULL,	('Mega Office', 'info@megaoffice.com'),
contact VARCHAR(100)	('Supplies Plus', 'support@suppliesplus.com'),
);	('Quality Goods', 'sales@qualitygoods.com');
# This Creates the [items] table with a foreign key to [suppliers]	# Insert 10 records into [items] while assigning supplier_id for each
DROP TABLE IF EXISTS items;	INSERT INTO items (barcode, name, quantity, price, brand, supplier_id) VALUES
CREATE TABLE items (	('1001', 'Pencil', 50, 0.50, '2B', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Stationery World')),
id INT AUTO_INCREMENT PRIMARY KEY,	('1002', 'Eraser', 40, 0.20, 'CleanCo', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Office Supplies Co.')),
barcode VARCHAR(50) UNIQUE,	('1003', 'Notebook', 30, 2.50, 'NotePro', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'School Essentials')),
name VARCHAR(255) NOT NULL,	('1004', 'Marker', 20, 1.00, 'ColorMax', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Paper & Ink')),
quantity INT,	('1005', 'Pen', 100, 0.75, 'WriteWell', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Fast Delivery')),
price FLOAT,	('1006', 'Ruler', 25, 1.50, 'MeasureUp', (SELECT supplier_id FROM suppliers WHERE supplier_name = 'Bright Ideas')),
brand VARCHAR(255),	
supplier_id INT,	
FOREIGN KEY (supplier_id) REFERENCES suppliers(supplier_id)	
);	

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```
('1007', 'Scissors', 15, 3.00, 'CutRight', (SELECT supplier_id FROM
suppliers WHERE supplier_name = 'Creative Supplies')),

('1008', 'Glue', 35, 1.25, 'StickIt', (SELECT supplier_id FROM
suppliers WHERE supplier_name = 'Mega Office')),

('1009', 'Stapler', 10, 4.00, 'FastFix', (SELECT supplier_id FROM
suppliers WHERE supplier_name = 'Supplies Plus')),

('1010', 'Highlighter', 60, 0.90, 'BrightMark', (SELECT supplier_id
FROM suppliers WHERE supplier_name = 'Quality Goods'));
```

# Update at least one existing record in a table

```
UPDATE items SET price = 0.55, quantity = 55 WHERE barcode =
'1001';
```

# Delete at least one record from a table

```
DELETE FROM items WHERE id = 1;
```

# 1. Select all items that cost more than 1.00, ordered by price
descending

```
SELECT * FROM items WHERE price > 1.00 ORDER BY price DESC;
```

# 2. Select all items from a specific brand

```
SELECT * FROM items WHERE brand = 'CleanCo';
```

# 3. Select items where quantity is less than 20

```
SELECT * FROM items WHERE quantity < 20;
```

# 4. Select all suppliers with "Office" in their name

```
SELECT * FROM suppliers WHERE supplier_name LIKE '%Office%';
```

# 5. Select items ordered alphabetically by name

```
SELECT * FROM items ORDER BY name ASC;
```

# Checking ALL items & Suppliers in seperate TABLE

```
SELECT * FROM items;
```

```
SELECT * FROM suppliers;
```

# Checking ALL items & Suppliers in combined table

```
SELECT
    i.id,
    i.barcode,
    i.name,
    i.quantity,
    i.price,
    i.brand,
    s.supplier_name,
    s.contact
FROM items i JOIN suppliers s ON i.supplier_id = s.supplier_id;
```