



[CLOTHES STORE]

Design By:

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Project Summary:

Workflow:

- Customers browse and select products.
- Orders are placed by customers either in-person or online.
- Staff members handle orders, updating their status (pending, processing, completed, etc.).
- Inventory levels are adjusted as orders are processed and products are sold or restocked.

Usage:

- Customers interact with the system to browse products, place orders, and track order status.
- Staff members manage orders, inventory, and interact with customers for sales and service.
- Managers oversee staff, monitor sales, and ensure inventory levels are maintained.

This project sets up a foundational structure for a retail system, enabling functionalities related to product management, sales, inventory control, and customer service. Further development and integration with application logic could build upon this structure to create a comprehensive retail management system.

SQL Code:

```
-- create schemas:
CREATE SCHEMA production;
GO

CREATE SCHEMA sales;
GO

-- create tables
CREATE TABLE production.categories (
    category_id INT IDENTITY (1, 1) PRIMARY KEY,
    category_name VARCHAR (255) NOT NULL
);

CREATE TABLE production.brands (
    brand_id INT IDENTITY (1, 1) PRIMARY KEY,
    brand_name VARCHAR (255) NOT NULL
);

CREATE TABLE production.products (
    product_id INT IDENTITY (1, 1) PRIMARY KEY,
    product_name VARCHAR (255) NOT NULL,
    brand_id INT NOT NULL,
    category_id INT NOT NULL,
    model_year SMALLINT NOT NULL,
    list_price DECIMAL (10, 2) NOT NULL,
    FOREIGN KEY (category_id) REFERENCES production.categories
(category_id) ,
    FOREIGN KEY (brand_id) REFERENCES production.brands (brand_id)
);

CREATE TABLE sales.customers (
    customer_id INT IDENTITY (1, 1) PRIMARY KEY,
    first_name VARCHAR (255) NOT NULL,
    last_name VARCHAR (255) NOT NULL,
    phone VARCHAR (25),
    email VARCHAR (255) NOT NULL,
    street VARCHAR (255),
    city VARCHAR (50),
    state VARCHAR (25),
    zip_code VARCHAR (5)
);

CREATE TABLE sales.stores (
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    store_id INT IDENTITY (1, 1) PRIMARY KEY,
    store_name VARCHAR (255) NOT NULL,
    phone VARCHAR (25),
    email VARCHAR (255),
    street VARCHAR (255),
    city VARCHAR (255),
    state VARCHAR (10),
    zip_code VARCHAR (5)
);

CREATE TABLE sales.staffs (
    staff_id INT IDENTITY (1, 1) PRIMARY KEY,
    first_name VARCHAR (50) NOT NULL,
    last_name VARCHAR (50) NOT NULL,
    email VARCHAR (255) NOT NULL UNIQUE,
    phone VARCHAR (25),
    active tinyint NOT NULL,
    store_id INT NOT NULL,
    manager_id INT,
    FOREIGN KEY (store_id) REFERENCES sales.stores (store_id) ,
    FOREIGN KEY (manager_id) REFERENCES sales.staffs (staff_id)
);

CREATE TABLE sales.orders (
    order_id INT IDENTITY (1, 1) PRIMARY KEY,
    customer_id INT,
    order_status tinyint NOT NULL,
    -- Order status: 1 = Pending; 2 = Processing; 3 = Rejected; 4 =
Completed
    order_date DATE NOT NULL,
    required_date DATE NOT NULL,
    shipped_date DATE,
    store_id INT NOT NULL,
    staff_id INT NOT NULL,
    FOREIGN KEY (customer_id) REFERENCES sales.customers
(customer_id),
    FOREIGN KEY (store_id) REFERENCES sales.stores (store_id) ,
    FOREIGN KEY (staff_id) REFERENCES sales.staffs (staff_id)
);

CREATE TABLE sales.order_items (
    order_id INT,
    item_id INT,
    product_id INT NOT NULL,
    quantity INT NOT NULL,
    list_price DECIMAL (10, 2) NOT NULL,

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        discount DECIMAL (4, 2) NOT NULL DEFAULT 0,
        PRIMARY KEY (order_id, item_id),
        FOREIGN KEY (order_id) REFERENCES sales.orders (order_id) ,
        FOREIGN KEY (product_id) REFERENCES production.products
(product_id)
);

CREATE TABLE production.stocks (
    store_id INT,
    product_id INT,
    quantity INT,
    PRIMARY KEY (store_id, product_id),
    FOREIGN KEY (store_id) REFERENCES sales.stores (store_id) ,
    FOREIGN KEY (product_id) REFERENCES production.products
(product_id)
);

```

Insert code:

```

use clothesStore;

SET IDENTITY_INSERT production.brands ON;

INSERT INTO production.brands (brand_id, brand_name) VALUES (1, 'Bershka')
INSERT INTO production.brands (brand_id, brand_name) VALUES (2, 'Zara')
INSERT INTO production.brands (brand_id, brand_name) VALUES (3, 'Defacto')
INSERT INTO production.brands (brand_id, brand_name) VALUES (4, 'Pull&Bear')
INSERT INTO production.brands (brand_id, brand_name) VALUES (5, 'splash')
INSERT INTO production.brands (brand_id, brand_name) VALUES (6, 'Lacoste')
INSERT INTO production.brands (brand_id, brand_name) VALUES (7, 'Polo')
INSERT INTO production.brands (brand_id, brand_name) VALUES (8, 'Max')
INSERT INTO production.brands (brand_id, brand_name) VALUES (9, 'Versace')

SET IDENTITY_INSERT production.brands OFF;

SET IDENTITY_INSERT production.categories ON;

INSERT INTO production.categories (category_id, category_name) VALUES (1, 'Children Clothes')
INSERT INTO production.categories (category_id, category_name) VALUES (2, 'Men Clothes')
INSERT INTO production.categories (category_id, category_name) VALUES (3, 'Women Clothes')

SET IDENTITY_INSERT production.categories OFF;

SET IDENTITY_INSERT production.products ON;

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INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(1, 'Kids Vest Leather - 2022', 3, 1, 2022, 559.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(2, 'Kids Jeans - 2019', 6, 1, 2019, 799.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(3, 'Kids Pajamas - 2021', 9, 1, 2021, 899.99)

```

```

INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(4, 'Men Blazer Leather - 2019 ', 1, 2, 2019, 559.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(5, 'Men Suit - 2020', 4, 2, 2020, 799.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(6, 'Men Jeans - 2023', 7, 2, 2023, 899.99)

```

```

INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(7, 'Women Dress - 2018', 5, 3, 2018, 559.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(8, 'Women Skirt - 2018', 8, 3, 2019, 799.99)
INSERT INTO production.products(product_id, product_name, brand_id, category_id,
model_year, list_price) VALUES(9, 'Women Leggings - 2023', 2, 3, 2023, 899.99)

```

```

SET IDENTITY_INSERT production.products OFF;

```

```

-- sales.customers table

```

```

INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('ali', 'mohamed', NULL, 'ali.mohamed@yahoo.com', ' Mohamed Ali
', 'cairo', 'EG', 14127);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('ahmed', 'khaled', NULL, 'ahmed.khaled@yahoo.com', 'Elmoez
', 'cairo', 'EG', 14156);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('menna', 'mohamed', NULL, 'menna.mohamed@yahoo.com', 'Qaser Nile
', 'cairo', 'EG', 14150);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('mostafa', 'mohamed', NULL, 'mostafa.mohamed@yahoo.com', 'Elazher
', 'cairo', 'EG', 14145);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('omer', 'mohamed', NULL, 'omer.mohamed@yahoo.com', 'Salah Salem
', 'cairo', 'EG', 14123);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('loay', 'ahmed', NULL, 'loay.ahmed@yahoo.com', 'Fesal ', 'Giza', 'EG', 141253);
INSERT INTO sales.customers(first_name, last_name, phone, email, street, city, state,
zip_code) VALUES('gehan', 'ali', NULL, 'gehan.ali@yahoo.com', 'Mostafa Elnahas
', 'cairo', 'EG', 14158);

```

```

-- stores

```

```

INSERT INTO sales.stores(store_name, phone, email, street, city, state, zip_code)
VALUES('Owl store 1', '01097457086', 'Owl store 1@clothes.shop', 'Emad Eldean',
'cairo', 'EG', 95060),
('Owl store 2', '01025592193', 'Owl store 2@clothes.shop', 'Elazher',
'cairo', 'EG', 11432);

```

```

-- production.stocks
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,1,27);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(2,3,5);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,2,6);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,7,23);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(2,5,22);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(2,8,0);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,4,8);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,9,0);
INSERT INTO production.stocks(store_id, product_id, quantity) VALUES(1,6,10);

SET IDENTITY_INSERT sales.staffs ON;

INSERT INTO sales.staffs(staff_id, first_name, last_name, email, phone, active, store_id,
manager_id) VALUES(1, 'Fabiola', 'Jackson', 'fabiola.jackson@bikes.shop', '(831) 555-
5554', 1, 1, NULL);
INSERT INTO sales.staffs(staff_id, first_name, last_name, email, phone, active, store_id,
manager_id) VALUES(2, 'Mireya', 'Copeland', 'mireya.copeland@bikes.shop', '(831) 555-
5555', 0, 2, 1);
INSERT INTO sales.staffs(staff_id, first_name, last_name, email, phone, active, store_id,
manager_id) VALUES(3, 'Genna', 'Serrano', 'genna.serrano@bikes.shop', '(831) 555-5556', 1, 2, 2);
INSERT INTO sales.staffs(staff_id, first_name, last_name, email, phone, active, store_id,
manager_id) VALUES(4, 'Virgie', 'Wiggins', 'virgie.wiggins@bikes.shop', '(831) 555-
5557', 0, 1, 2);

SET IDENTITY_INSERT sales.staffs OFF;

SET IDENTITY_INSERT sales.orders ON;
INSERT INTO sales.orders(order_id, customer_id, order_status, order_date, required_date,
shipped_date, store_id, staff_id) VALUES(1, 259, 4, '20160101', '20160103', '20160103', 1, 2);
INSERT INTO sales.orders(order_id, customer_id, order_status, order_date, required_date,
shipped_date, store_id, staff_id) VALUES(2, 1212, 4, '20160101', '20160104', '20160103', 2, 3);
INSERT INTO sales.orders(order_id, customer_id, order_status, order_date, required_date,
shipped_date, store_id, staff_id) VALUES(3, 523, 4, '20160102', '20160105', '20160103', 2, 4);
INSERT INTO sales.orders(order_id, customer_id, order_status, order_date, required_date,
shipped_date, store_id, staff_id) VALUES(4, 175, 4, '20160103', '20160104', '20160105', 1, 1);
INSERT INTO sales.orders(order_id, customer_id, order_status, order_date, required_date,
shipped_date, store_id, staff_id) VALUES(5, 1324, 4, '20160103', '20160106', '20160106', 2, 2);

SET IDENTITY_INSERT sales.orders OFF;

INSERT INTO sales.order_items(order_id, item_id, product_id, quantity,
list_price, discount) VALUES(1, 3, 1, 56, 5499.99, 0.05);
INSERT INTO sales.order_items(order_id, item_id, product_id, quantity,
list_price, discount) VALUES(2, 4, 5, 22, 269.99, 0.2);
INSERT INTO sales.order_items(order_id, item_id, product_id, quantity,
list_price, discount) VALUES(3, 1, 7, 23, 869.99, 0.07);
INSERT INTO sales.order_items(order_id, item_id, product_id, quantity,
list_price, discount) VALUES(4, 2, 4, 40, 3199.99, 0.2);
INSERT INTO sales.order_items(order_id, item_id, product_id, quantity,
list_price, discount) VALUES(5, 3, 9, 20, 659.99, 0.07);

```

DQl code:

```
--select all
SELECT * FROM production.brands
SELECT * FROM production.categories
SELECT * FROM production.products
SELECT * FROM production.stocks
SELECT * FROM sales.customers
SELECT * FROM sales.order_items
SELECT * FROM sales.staffs
SELECT * FROM sales.stores

--retrieve specific column
select email
from sales.customers;

--use concatenation fname,lname as fullname
select first_name+ ' '+last_name as customers_name
from sales.customers;

--retreive data as unique
select distinct(product_id)
from production.products ;

--use condition in select
select * from production.products
where list_price >=750;
```

Dcl code:

```
create login AbdelrahmanSami with password='1023##$102';
create login AhmedRamadan with password='225252#w20';
create login AbdelrahmanAhmed with password='3d22@nknc';

create user AbdelrahmanAhmed for login AbdelrahmanAhmed;
create user AhmedRamadan for login AhmedRamadan;
create user AbdelrahmanSami for login AbdelrahmanSami;

grant select, insert to AbdelrahmanSami ;
revoke select to AhmedRamadan ;

drop user AbdelrahmanAhmed;
drop user AbdelrahmanSami;
drop user AhmedRamadan;

drop login AbdelrahmanAhmed;
drop login AbdelrahmanSami;
drop login AhmedRamadan;
```


Tcl code:

```
-- TCL:
BEGIN TRANSACTION
UPDATE sales.customers
SET first_name = 'Omar';
SAVE TRANSACTION A

BEGIN TRANSACTION
DELETE FROM production.brands;
SAVE TRANSACTION B

ROLLBACK TRANSACTION A;
ROLLBACK TRANSACTION B;
```