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*TITLE: REPORT*
*Project: STORE MANAGEMENT SYSTEM*

This is a project about BOUTIQUE (STORE) in which clients would buy various items from different states, and cities with different genres. Each product has its own price, and we can also know order statuses, whether it shipped, processed, or Delivered, and also all products has their own id number, and so on. we can also check the employee who shipped the goods.

## why?
Nowadays, everything is getting technology in order to ensure and grow up our businesses and maintain control of our business we need a database (DBMS) and it helps us to ensure an uninterrupted supply of materials without delay to various users of the organization and ensure most effective utilization of available storage space and even to minimize the cost of storage and so on.
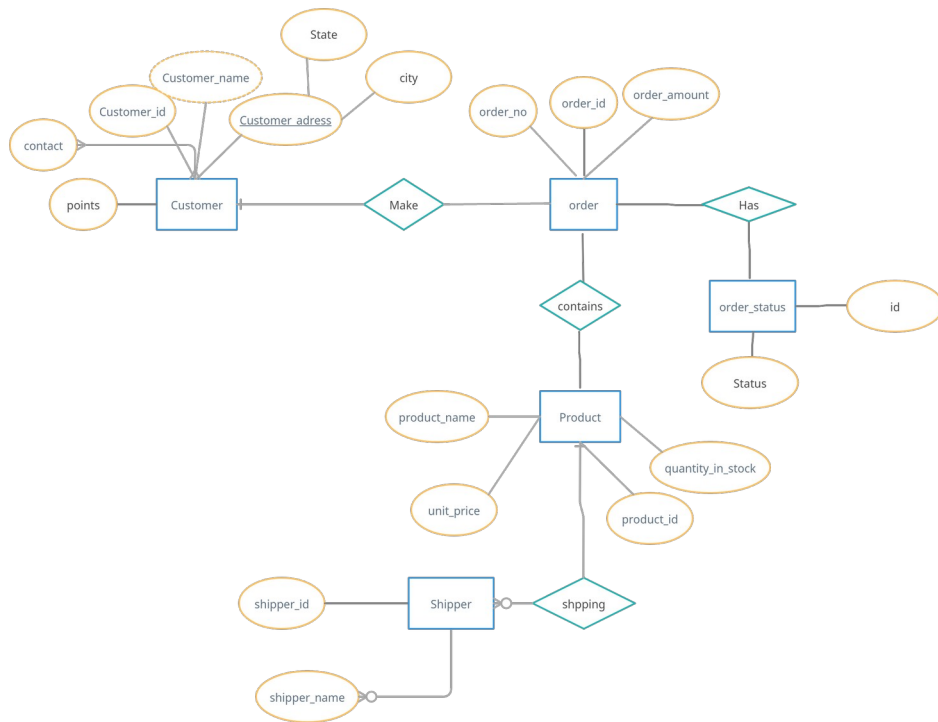
## How?
In order to make clients admire our shop we are going to give them points which means whenever you buy goods from us you will keep winning points so because of these points you will get more reduction from us even your points get much higher you can change it by taking goods.
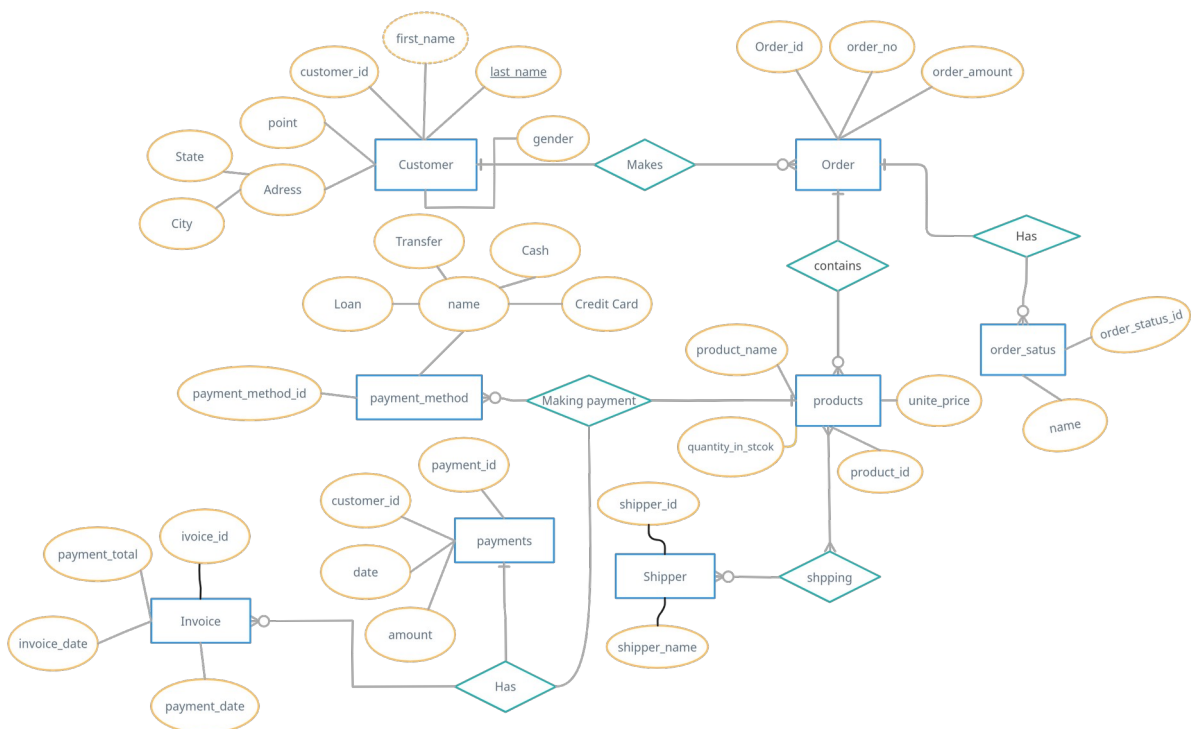
## *Challenges encountered while making the database*

➢ I had problem for updating in order with customer then i use this "**CONSTRAINT fk_orders_customers , ON UPDATE CASCADE**" The foreign key constraint ensures that the value in the "customer_id" column of the "orders" table must match a value in the "customer_id" column of the "customers" table, and it will prevent any insertion or update of orders with customer_id that do not exist in the customers table.

➢ I had numerous names on my MySQL workbench as names of my project so every single I add or delete something it did not show me up after running the code I was thinking that I am working with my new one, then I realize I had to use "**DROP DATABASE IF EXISTS** " because The statement is used to ensure that the database being dropped is already present on the server and to prevent an error from occurring if the database does not exist.

➢ **Date datatype** was one of the most challenge I have faced I was using American format which is: (mm-dd-yyyy, 05-29-2022) in MySQL it should be done by chines format  start from year ('YYYY-MM-DD', '2023-01-07')

## **Old Er Diagram**

## New Er Diagram



## UML DIAGRAM

**orders**
- order_id INT
- customer_id INT
- order_date DATE
- status TINYINT
- comments VARCHAR(2000)
- shipped_date DATE
- shipper_id SMALLINT
- product_id INT
- Indexes

**products**
- product_id INT
- product_name VARCHAR(50)
- quantity_in_stock INT
- unit_price DECIMAL(4,2)
- Indexes

**customers**
- customer_id INT
- first_name VARCHAR(50)
- last_name VARCHAR(50)
- gender VARCHAR(50)
- birth_date DATE
- phone VARCHAR(50)
- address VARCHAR(50)
- city VARCHAR(50)
- points INT
- Indexes

**invoices**
- invoice_id INT
- customer_id INT
- invoice_total DECIMAL(9,2)
- payment_total DECIMAL(9,2)
- invoice_date DATE
- due_date DATE
- payment_date DATE
- Indexes

**shippers**
- shipper_id SMALLINT
- name VARCHAR(50)
- Indexes

**payment_methods**
- payment_method_id TINYINT
- name VARCHAR(50)
- Indexes

**payments**
- payment_id INT
- customer_id INT
- date DATE
- amount DECIMAL(9,2)
- payment_method TINYINT
- invoice_id INT
- Indexes

**order_statuses**
- order_status_id TINYINT
- name VARCHAR(50)
- Indexes