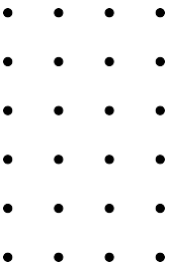


SQL PROJECT



COFFEE STORE DATABASE



INTRODUCTION

THE PROJECT MAINLY FOCUSES ON ANALYZING COFFEE STORE DATASET TO SOLVE BUSINESS PROBLEMS AND EXTRACT INSIGHTS ON ORDERS, CUSTOMERS AND PRODUCT PREFERENCES. THE DATA IS PROCESSED USING MYSQL AND THE ANALYSIS HELPED IN PROVIDING RECOMMENDATIONS FOR OPTIMISING BUSINESS OPERATIONS.



SCHEMA

THE SCHEMA IS DESIGNED TO CREATE RELATIONSHIP BETWEEN THE TABLES TO ENSURE INTEGRITY AND FACILITATE COMPLEX QUERYING.

DATABASE NAME

COFFEE STORE

TABLE NAME

PRODUCTCS

COLUMNS

🔑 ID INT

NAME VARCHAR(30)

PRICE DECIMAL(3,2)

COFFEE_ORIGIN VARCHAR(30)

TABLE NAME

ORDERS

COLUMNS

🔑 ID INT

◆ PRODUCT_ID INT

◆ CUSTOMER_ID INT

ORDER_TIME DATETIME

TABLE NAME

CUSTOMERS

COLUMNS

🔑 ID INT

FIRST_NAME VARCHAR(30)

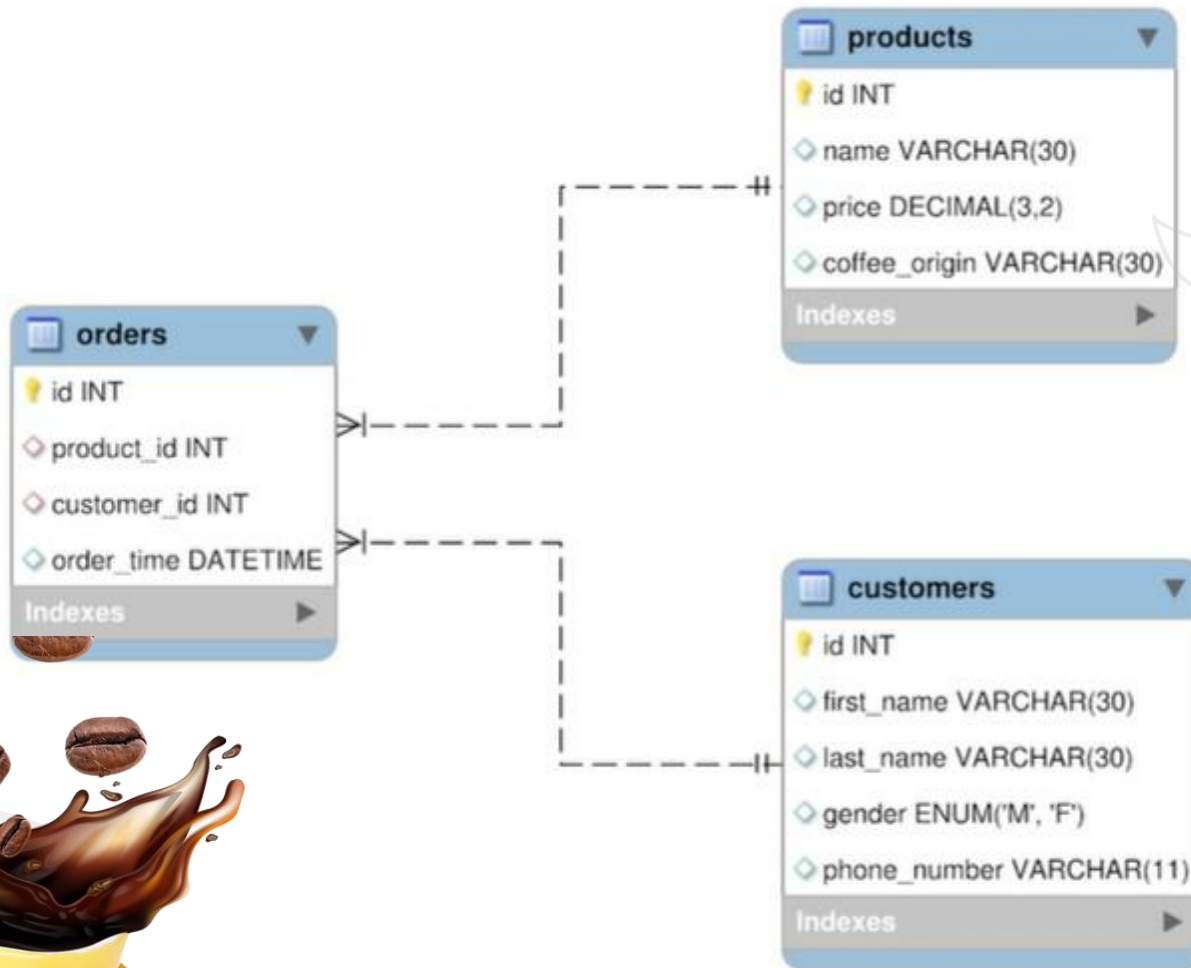
LAST_NAME VARCHAR(30)

GENDER ENUM('M', 'F')

PHONE_NUMBER VARCHAR(11)

ENTITY RELATIONSHIP DIAGRAM

AN ENTITY RELATIONSHIP DIAGRAM IS A DIAGRAM THAT REPRESENTS RELATIONSHIPS AMONG ENTITIES IN A DATABASE. IT IS COMMONLY KNOWN AS AN ER DIAGRAM. AN ER DIAGRAM IN DBMS PLAYS A CRUCIAL ROLE IN DESIGNING THE DATABASE.



CREATING DATABASE

STEPS TO CREATE DATABASE:

- **CREATE A NEW DATABASE CALLED COFFEE_STORE.**
- **USE THE COFFEE_STORE DATABASE.**
- **CREATE ALL THE THREE TABLES WITH COLUMNS, ADD THEIR DATA TYPES AND CONSTRAINTS (PRODUCTS, ORDERS, CUSTOMERS).**
- **ENSURE TO CHECK ALL THE TABLES.**
- **INSERT VALUES INTO ALL THE THREE TABLES.**

NOTE: DM FOR PRACTISE TEXT DATASET

CODE FOR YOUR REFERENCE:

```
SHOW DATABASES;  
CREATE DATABASE COFFEE_STORE;  
USE COFFEE_STORE;
```

```
CREATE TABLE PRODUCTS (  
  ID INT AUTO_INCREMENT PRIMARY KEY,  
  NAME VARCHAR(30),  
  PRICE DECIMAL(3,2)  
);
```

```
CREATE TABLE CUSTOMERS(  
  ID INT AUTO_INCREMENT PRIMARY KEY,  
  FIRST_NAME VARCHAR(30),  
  LAST_NAME VARCHAR(30),  
  GENDER ENUM('M','F'),  
  PHONE_NUMBER VARCHAR(11)  
);
```

```
CREATE TABLE ORDERS(  
  ID INT AUTO_INCREMENT PRIMARY KEY,  
  PRODUCT_ID INT,  
  CUSTOMER_ID INT,  
  ORDER_TIME DATETIME,  
  FOREIGN KEY (PRODUCT_ID) REFERENCES  
  PRODUCTS(ID),  
  FOREIGN KEY (CUSTOMER_ID) REFERENCES  
  CUSTOMERS(ID)  
);
```

```
SHOW DATABASES;  
USE COFFEE_STORE;  
SHOW TABLES;
```

QUERYING REQUIRED DATA

WE ARE DONE WITH CREATING DATABASE, IT'S TIME TO PLAY..

EXERCISE 1

FROM THE CUSTOMERS TABLE, SELECT THE FIRST NAME, PHONE NUMBER OF ALL THE FEMALE EMPLOYEES WHO HAVE THE LAST NAME BLUTH.

```
SELECT FIRST_NAME, PHONE_NUMBER FROM CUSTOMERS  
WHERE LAST_NAME = 'BLUTH' AND GENDER = 'F';
```

EXERCISE 2

FROM THE PRODUCTS TABLE, SELECT THE NAME FOR ALL PRODUCTS THAT HAVE A PRICE GREATER THAN 3.00 OR A COFFEE_ORIGIN OF SRI LANKA.

```
SELECT NAME FROM PRODUCTS  
WHERE PRICE > 3.00 OR COFFEE_ORIGIN = 'SRI LANKA';
```

EXERCISE 3

HOW MANY MALE CUSTOMERS DON'T HAVE A PHONE NUMBER ENTERED IN THE CUSTOMERS TABLE?

```
SELECT * FROM CUSTOMERS  
WHERE GENDER = 'M' AND PHONE_NUMBER IS NULL;
```

EXERCISE 4

FROM THE PRODUCTS TABLE, SELECT THE NAME AND PRICE OF ALL PRODUCTS WITH A COFFEE ORIGIN EQUAL TO COLUMBIA OR INDONESIA. SORT THE RESULTS BY NAME A-Z.

```
SELECT NAME, PRICE FROM PRODUCTS  
WHERE COFFEE_ORIGIN IN ('COLUMBIA', 'INDONESIA')  
ORDER BY NAME;
```



EXERCISE 5

FROM THE ORDERS TABLE, SELECT ALL THE ORDERS FROM FEBRUARY 2023, FOR CUSTOMERS WITH IDS OF 19,20,21 OR 24.

```
SELECT * FROM ORDERS  
WHERE (MONTH(ORDER_TIME) = 02 AND YEAR(ORDER_TIME) = 2023) AND CUSTOMER_ID IN (19,20,21,24);
```

EXERCISE 6

FROM THE CUSTOMERS TABLE, SELECT THE FIRST NAME AND PHONE NUMBER OF ALL THE CUSTOMERS WHOSE LAST NAME CONTAINS A PATTERN 'AR'

```
SELECT FIRST_NAME, PHONE_NUMBER FROM CUSTOMERS  
WHERE LAST_NAME LIKE '%AR%';
```

EXERCISE 7

FROM THE CUSTOMERS TABLE, SELECT ALL THE DISTINCT LAST NAMES AND ORDER THEM ALPHABETICALLY (A-Z)

```
SELECT DISTINCT LAST_NAME FROM CUSTOMERS  
ORDER BY LAST_NAME ASC;
```

EXERCISE 8

SELECT THE FIRST 4 ORDERS PLACED FOR THE PRODUCT WITH ID 3, IN FEBRUARY 2023.

```
SELECT * FROM ORDERS  
WHERE PRODUCT_ID = 3 AND (MONTH(ORDER_TIME) = 2 AND YEAR(ORDER_TIME) = 2023)  
ORDER BY ORDER_TIME  
LIMIT 4;
```

EXERCISE 9

SELECT THE NAME, PRICE, COFFEE_ORIGIN FROM THE PRODUCTS TABLE, BUT RENAME THE PRICE COLUMN TO RETAIL PRICE IN THE RESULT SET.

```
SELECT NAME, PRICE AS RETAIL_PRICE, COFFEE_ORIGIN FROM PRODUCTS;
```



EXERCISE 10

SELECT THE ORDER ID AND CUSTOMER'S PHONE NUMBER FOR ALL ORDERS OF PRODUCT ID 4.

```
SELECT O.ID, C.PHONE_NUMBER FROM ORDERS O  
JOIN CUSTOMERS C ON C.ID = O.CUSTOMER_ID  
WHERE PRODUCT_ID = 4;
```

EXERCISE 11

SELECT THE PRODUCT NAME AND ORDER TIME, FOR FILTER COFFEES SOLD BETWEEN JANUARY 1ST 2023 AND MARCH 31ST 2023.

```
SELECT NAME, ORDER_TIME FROM PRODUCTS  
JOIN ORDERS ON ORDERS.PRODUCT_ID = PRODUCTS.ID  
WHERE NAME = 'FILTER' AND ORDER_TIME BETWEEN '2023-01-01' AND '2023-03-31';
```

EXERCISE 12

SELECT THE PRODUCT NAME, PRICE AND ORDER TIME FOR ALL ORDERS FROM FEMALES IN JANUARY 2023.

```
SELECT P.NAME, P.PRICE, O.ORDER_TIME FROM PRODUCTS P  
JOIN ORDERS O ON O.PRODUCT_ID = P.ID  
JOIN CUSTOMERS C ON C.ID = O.CUSTOMER_ID  
WHERE GENDER = 'F' AND (MONTH(ORDER_TIME) = 01 AND YEAR(ORDER_TIME) = 2023);
```





THANKYOU

SRINU

LET'S MAKE IT TOGETHER

