Shop Management System

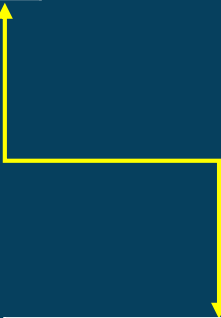- BY FURKAN PETKAR

INTRODUCTION

A Shop Management System is the heartbeat of modern retail operations. It is used to maintain shop records. It tracks the records of the number of products in the shop, how many products are issued, or how many products have been returned or sold etc.

DATABASE DESIGN

Database :- Shop Management System

Tables;

- Customer

- Product

- Order_detail

- Stock

SYNTAX : SHOW TABLES;

```
MariaDB [shop_management_system]> show tables;
+-------------------------------------+
| Tables_in_shop_management_system    |
+-------------------------------------+
| customer                            |
| order_detail                        |
| product                             |
| stock                               |
+-------------------------------------+
4 rows in set (0.001 sec)
```

I WANT TO SEE STRUCTURE OF THE TABLES; SYNTAX : DESC CUSTOMER;

```
MariaDB [shop_management_system]> desc customer;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| C_id         | int(11)     | NO   | PRI | NULL    |       |
| name         | varchar(50) | YES  |     | NULL    |       |
| address      | varchar(75) | YES  |     | NULL    |       |
| phone_number | int(11)     | YES  |     | NULL    |       |
| email        | varchar(25) | YES  |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
5 rows in set (0.039 sec)
```

SYNTAX : DESC PRODUCT;

```
MariaDB [shop_management_system]> desc product;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| P_id    | int(11)     | NO   | PRI | NULL    |       |
| P_name  | varchar(50) | YES  |     | NULL    |       |
| amount  | int(11)     | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
3 rows in set (0.033 sec)
```

SYNTAX : DESC ORDER_DETAIL;

```
MariaDB [shop_management_system]> desc order_detail;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| ord_id   | int(11) | YES  |     | NULL    |       |
| P_id     | int(11) | YES  | MUL | NULL    |       |
| quantity | int(11) | YES  |     | NULL    |       |
+----------+---------+------+-----+---------+-------+
3 rows in set (0.042 sec)
```

SYNTAX : DESC STOCK;

```
MariaDB [shop_management_system]> desc stock;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| P_id     | int(11) | YES  | MUL | NULL    |       |
| quantity | int(11) | YES  |     | NULL    |       |
+----------+---------+------+-----+---------+-------+
2 rows in set (0.036 sec)
```

I want to see detail of customer table
SYNTAX : SELECT*FROM CUSTOMER;

```
MariaDB [shop_management_system]> select*from customer;
+-------+-------+----------+--------------+---------------------+
| C_id  | name  | address  | phone_number | email               |
+-------+-------+----------+--------------+---------------------+
|     1 | asim  | kalva    |   2147483647 | asim09@gmail.com    |
|     2 | uzair | kalva    |   2147483647 | uzair09@gmail.com   |
|     3 | sakib | mumbra   |   2147483647 | sakib08@gmail.com   |
|     4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com   |
|     5 | imran | kharghar |   2147483647 | imran78@gmail.com   |
+-------+-------+----------+--------------+---------------------+
5 rows in set (0.000 sec)
```

I want to see detail of product table
SYNTAX : SELECT*FROM PRODUCT;

```
MariaDB [shop_management_system]> select*from product;
+--------+--------+--------+
| P_id   | P_name | amount |
+--------+--------+--------+
| 141531 | HP     |  45000 |
| 141532 | Acer   |  50000 |
| 141533 | Lenovo |  75000 |
| 141534 | Nokia  |  35000 |
| 141535 | Asus   |  56000 |
+--------+--------+--------+
5 rows in set (0.001 sec)
```

I want to see detail of order_detail table
SYNTAX : SELECT*FROM ORDER_DETAIL;

```
MariaDB [shop_management_system]> select*from order_detail;
+--------+--------+----------+
| ord_id | P_id   | quantity |
+--------+--------+----------+
|    111 | 141531 |        3 |
|    112 | 141532 |        5 |
|    113 | 141533 |        4 |
|    114 | 141534 |        6 |
|    115 | 141535 |        2 |
|    116 | 141532 |        4 |
+--------+--------+----------+
6 rows in set (0.001 sec)
```

I want to see detail of stock table
SYNTAX : SELECT*FROM STOCK;

```
MariaDB [shop_management_system]> select*from stock;
+----------+------------+
| P_id     | quantity   |
+----------+------------+
| 141531   |          3 |
| 141532   |          5 |
| 141533   |          4 |
| 141534   |          6 |
| 141535   |          2 |
| 141532   |          4 |
+----------+------------+
6 rows in set (0.001 sec)
```

Suppose I want to update my data in table.
SYNTAX : UPDATE CUSTOMER SET ADDRESS="TALOJA"
WHERE C_ID=3;

```
MariaDB [shop_management_system]> select*from customer;
+------+-------+----------+--------------+--------------------+
| C_id | name  | address  | phone_number | email              |
+------+-------+----------+--------------+--------------------+
|    1 | asim  | kalva    |   2147483647 | asim09@gmail.com   |
|    2 | uzair | kalva    |   2147483647 | uzair09@gmail.com  |
|    3 | sakib | mumbra   |   2147483647 | sakib08@gmail.com  |
|    4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com  |
|    5 | imran | kharghar |   2147483647 | imran78@gmail.com  |
+------+-------+----------+--------------+--------------------+
5 rows in set (0.000 sec)
```

```
MariaDB [shop_management_system]> select*from customer;
+------+-------+----------+--------------+--------------------+
| C_id | name  | address  | phone_number | email              |
+------+-------+----------+--------------+--------------------+
|    1 | asim  | kalva    |   2147483647 | asim09@gmail.com   |
|    2 | uzair | kalva    |   2147483647 | uzair09@gmail.com  |
|    3 | sakib | taloja   |   2147483647 | sakib08@gmail.com  |
|    4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com  |
|    5 | imran | kharghar |   2147483647 | imran78@gmail.com  |
+------+-------+----------+--------------+--------------------+
5 rows in set (0.001 sec)
```

I want to change the name of the table.
SYNTAX : ALTER TABLE CUSTOMER RENAME CUSTOMER_DETAILS;

```
MariaDB [shop_management_system]> select*from customer_details;
+-------+-------+----------+--------------+---------------------+
| C_id  | name  | address  | phone_number | email               |
+-------+-------+----------+--------------+---------------------+
|     1 | asim  | kalva    |   2147483647 | asim09@gmail.com    |
|     2 | uzair | kalva    |   2147483647 | uzair09@gmail.com   |
|     3 | sakib | taloja   |   2147483647 | sakib08@gmail.com   |
|     4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com   |
|     5 | imran | kharghar |   2147483647 | imran78@gmail.com   |
+-------+-------+----------+--------------+---------------------+
5 rows in set (0.000 sec)
```

I want to add unique key in the column
SYNTAX : ALTER TABLE CUSTOMER_DETAILS ADD UNIQUE KEY (PHONE_NUMBER);

```
MariaDB [shop_management_system]> desc customer_details;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| C_id         | int(11)     | NO   | PRI | NULL    |       |
| name         | varchar(50) | YES  |     | NULL    |       |
| address      | varchar(75) | YES  |     | NULL    |       |
| phone_number | int(11)     | YES  |     | NULL    |       |
| email        | varchar(25) | YES  | UNI | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
5 rows in set (0.029 sec)
```

I want some specific data from the table.
SYNTAX : SELECT*FROM CUSTOMER_DETAILS WHERE NAME LIKE 'A%';

```
MariaDB [shop_management_system]> select*from customer_details where name like 'a%';
+------+-------+---------+--------------+--------------------+
| C_id | name  | address | phone_number | email              |
+------+-------+---------+--------------+--------------------+
|    1 | asim  | kalva   |   2147483647 | asim09@gmail.com   |
|    4 | adnan | mumbra  |   2147483647 | adnan09@gmail.com  |
+------+-------+---------+--------------+--------------------+
2 rows in set (0.001 sec)
```

I want to hide some column.
SYNTAX : CREATE VIEW COUSTOMER_DETAILS AS SELECT NAME,PHONE_NUMBER,ADDRESS FROM CUSTOMER_DETAILS;

```
MariaDB [shop_management_system]> CREATE VIEW COUSTOMER_DETAILS AS SELECT NAME,PHONE_NUMBER,ADDRESS FROM CUSTOMER_DETAILS;
Query OK, 0 rows affected (0.012 sec)

MariaDB [shop_management_system]> select*from customer_details;
+-------+-------+----------+--------------+-------------------+
| C_id  | name  | address  | phone_number | email             |
+-------+-------+----------+--------------+-------------------+
|     1 | asim  | kalva    |   2147483647 | asim09@gmail.com  |
|     2 | uzair | kalva    |   2147483647 | uzair09@gmail.com |
|     3 | sakib | taloja   |   2147483647 | sakib08@gmail.com |
|     4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com |
|     5 | imran | kharghar |   2147483647 | imran78@gmail.com |
+-------+-------+----------+--------------+-------------------+
5 rows in set (0.001 sec)
```

I want fetch the data of the first 3 names.
SYNTAX : SELECT*FROM CUSTOMER_DETAILS LIMIT 3;

```
MariaDB [shop_management_system]> select*from customer_details limit 3;
+-------+-------+---------+--------------+--------------------+
| C_id  | name  | address | phone_number | email              |
+-------+-------+---------+--------------+--------------------+
|     1 | asim  | kalva   |   2147483647 | asim09@gmail.com   |
|     2 | uzair | kalva   |   2147483647 | uzair09@gmail.com  |
|     3 | sakib | taloja  |   2147483647 | sakib08@gmail.com  |
+-------+-------+---------+--------------+--------------------+
3 rows in set (0.001 sec)
```

I want to the data of customer_details and product table.
SYNTAX : SELECT*FROM CUSTOMER_DETAILS LEFT JOIN PRODUCT ON CUSTOMER_DETAILS. C_ID=PRODUCT.P__ID;

```
MariaDB [shop_management_system]> select*from customer_details;
+-------+-------+----------+--------------+--------------------+
| C_id  | name  | address  | phone_number | email              |
+-------+-------+----------+--------------+--------------------+
|     1 | asim  | kalva    |   2147483647 | asim09@gmail.com   |
|     2 | uzair | kalva    |   2147483647 | uzair09@gmail.com  |
|     3 | sakib | taloja   |   2147483647 | sakib08@gmail.com  |
|     4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com  |
|     5 | imran | kharghar |   2147483647 | imran78@gmail.com  |
+-------+-------+----------+--------------+--------------------+
5 rows in set (0.001 sec)
```

```
MariaDB [shop_management_system]> select*from product;
+--------+--------+--------+
| P_id   | P_name | amount |
+--------+--------+--------+
| 141531 | HP     |  45000 |
| 141532 | Acer   |  50000 |
| 141533 | Lenovo |  75000 |
| 141534 | Nokia  |  35000 |
| 141535 | Asus   |  56000 |
+--------+--------+--------+
5 rows in set (0.000 sec)
```

After using left join.

```
MariaDB [shop_management_system]> SELECT*FROM CUSTOMER_DETAILS LEFT JOIN PRODUCT ON CUSTOMER_DETAILS. C_ID=PRODUCT.P_ID;
+------+-------+----------+--------------+--------------------+------+--------+--------+
| C_id | name  | address  | phone_number | email              | P_id | P_name | amount |
+------+-------+----------+--------------+--------------------+------+--------+--------+
|    1 | asim  | kalva    |   2147483647 | asim09@gmail.com   | NULL | NULL   |   NULL |
|    2 | uzair | kalva    |   2147483647 | uzair09@gmail.com  | NULL | NULL   |   NULL |
|    3 | sakib | taloja   |   2147483647 | sakib08@gmail.com  | NULL | NULL   |   NULL |
|    4 | adnan | mumbra   |   2147483647 | adnan09@gmail.com  | NULL | NULL   |   NULL |
|    5 | imran | kharghar |   2147483647 | imran78@gmail.com  | NULL | NULL   |   NULL |
+------+-------+----------+--------------+--------------------+------+--------+--------+
5 rows in set (0.001 sec)
```

CONCLUSION

Through this project I have gained more experience in SQL database design query optimization and data manipulation this project not only improve my technical skills but also provide practical understanding.

Thank You