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## **PHARMACY-MANAGEMENT SYSTEM**

**SUBMITTED BY:-** SACHIN VISHWAKARMA

**SECTION:-** K21QA

**REG. NO:-** 12107934

**ROLL NO:-** RK21QAB63

**SUBMITTED TO :-** BHANU TALWAR MA'AM

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# PHARMACY–MANAGEMENT SYSTEM

## INTRODUCTION:

The main aim of the project is the management of the database of the pharmaceutical shop. This project is insight into the design and implementation of a Pharmacy Management System. This is done by creating a database of the available medicines in the shop. The primary aim of pharmacy management system is to improve accuracy and enhance safety and efficiency in the pharmaceutical store. The aim of this project is to develop software for the effective management of a pharmaceutical store. We have developed this software for ensuring effective policing by providing statistics of the drugs in stock.

### Description:-

This program can be used in any pharmaceutical shops having a database to maintain. The software used can generate reports, as per the user's requirements. The software can print invoices, bills, receipts etc. It can also maintain the record of supplies sent in by the supplier. Here, the admin who are handling the organization will be responsible to manage the record of the employee. Each employee will be given with a separate username and password

### Objectives

#### -> Primary objective

- To gain practical experience by modeling a software based on real world problem.
- To understand how to work on Front-end (Java) and Back-end (MySQL) by using server(wamp).

#### -> Secondary objective

- To develop an application that deals with the day to day requirement of any pharmacy.
- To develop the easy management of the medicines (drugs).
- To handle the inventory details like sales details, purchase details and stock expiry and quantity.
- To provide competitive advantage to the pharmacy.
- To provide details information about the stock on details necessary and help locate it in shop easily.
- To make the stock manageable and simplify the use of inventory in the pharmacy.

## ➤ DESIGN

Database Design is a collection of processes that facilitate the designing, development, implementation and maintenance of enterprise data management systems.

It helps produce database systems:

- o That meet the requirements of the users
- o Have high performance.

### **Architecture\_Description**

The design of a DBMS depends on its architecture. It can be centralized or decentralized or hierarchical. The architecture of a DBMS can be seen as either single tier or multi-tier.

## • ER Diagram

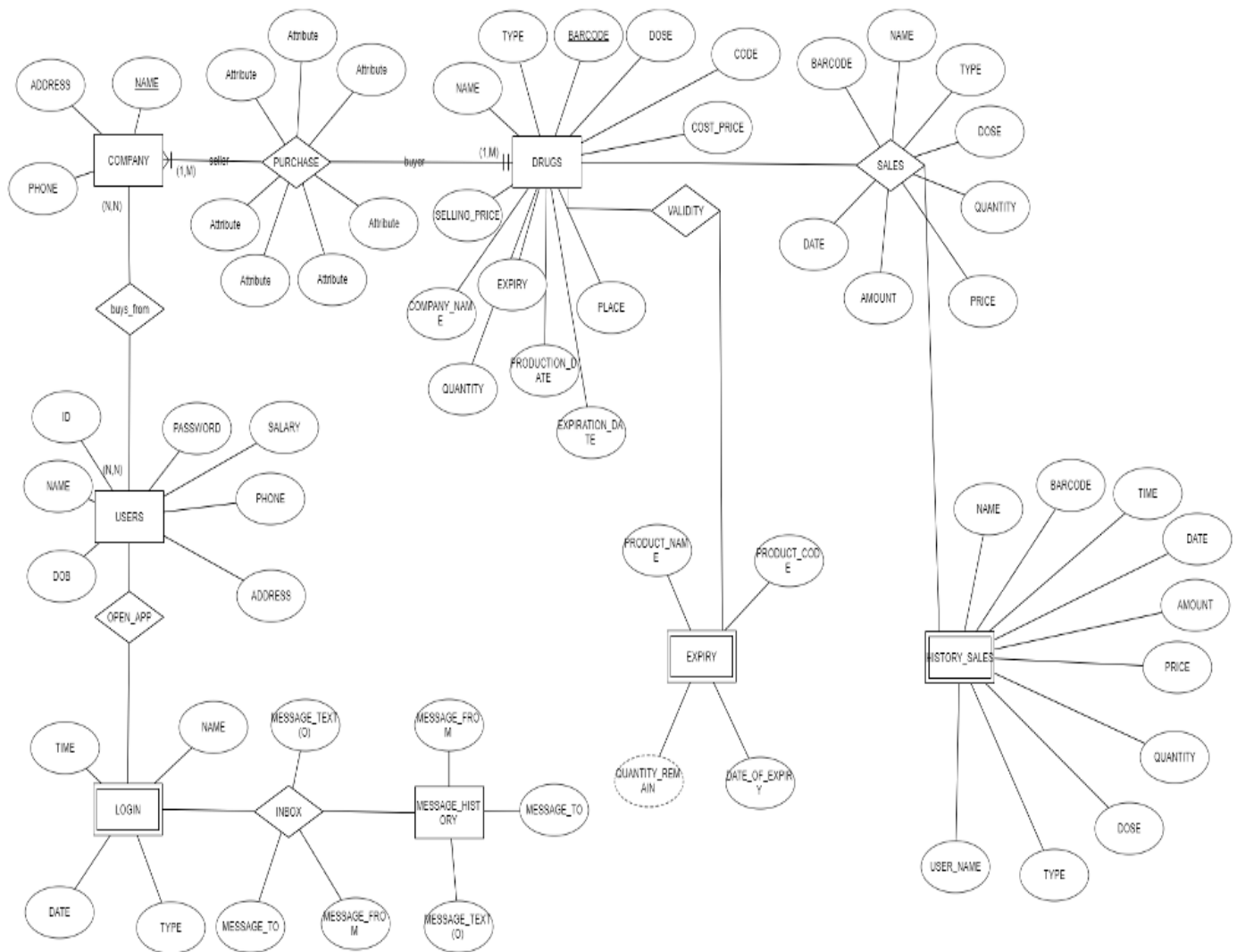


Fig 1: ER Diagram

An entity–relationship model describes interrelated things of interest in a specific domain of knowledge (Refer Fig 1). It is composed of entity types and specifies relationships that can exist between instances of those entity types.

## ➤ Relational Schema Diagram

### COMPANY

<u>NAME</u>	ADDRESS	PHONE
-------------	---------	-------

### DRUG

NAME	TYPE	<u>BARCODE</u>	DOSE	CODE	COST-PRICE	SELL-PRICE	EXPIRY	COMPANY-NAME	PRODUCTION-DATE	EXPIRATION-DATE	PLACE	QUANTITY
------	------	----------------	------	------	------------	------------	--------	--------------	-----------------	-----------------	-------	----------

### HISTORY\_SALE

USER-NAME	BARCODE	DOSE	TYPE	PRICE	AMOUNT	DATE	TIME	NAME	QUANTITY
-----------	---------	------	------	-------	--------	------	------	------	----------

### PURCHASE

COMPANY_NAME	BARCODE	TYPE	PRICE	AMOUNT	NAME	QUANTITY
--------------	---------	------	-------	--------	------	----------

### SALE

BARCODE	DOSE	TYPE	PRICE	AMOUNT	NAME	QUANTITY	DATE
---------	------	------	-------	--------	------	----------	------

### USER

<u>ID</u>	NAME	DOB	PHONE	ADDRESS	SALARY	PASSWORD
-----------	------	-----	-------	---------	--------	----------

### LOGIN

NAME	TYPE	DATE	TIME	ID
------	------	------	------	----

### INBOX

MESSAGE-FROM	MESSAGE-TO	MESSAGE-TEXT	SENDER_ID
--------------	------------	--------------	-----------

Fig 2: Relational Schema

Relational schema is a collection of meta-data. Database schema describes the structure and constraints of data representing in a particular domain (Refer Fig 2)

## ➤ IMPLEMENTATION

### **Description on Implementation**

The goal of this application is to manage the medicines and various function of the pharmacy.

#### **List of modules:**

- o Login page
- o Home page
- o Company
- o Purchase
- o Drugs
- o Sales
- o User/Settings
- o Messaging

# CREATE & INSERT SQL QUERIES

## CREATE COMMANDS:

→CREATE TABLE CUSTOMERS(

ID NUMBER(5) PRIMARY KEY,

NAME VARCHAR(20),

AGE NUMBER(3),

GENDER VARCHAR(6),

CONTACT\_N0 NUMBER(10));

SELECT \* FROM CUSTOMERS;



```
Select Run SQL Command Line

SQL> INSERT INTO CUSTOMERS VALUES(12104,'AMBEDKAR SINGH',20,'MALE',6203065407);
1 row created.

SQL> INSERT INTO CUSTOMERS VALUES(12105,'JYOTI SINGH',20,'FEMALE',6205028700);
1 row created.

SQL> INSERT INTO CUSTOMERS VALUES(12106,'ASHISH JHA',22,'MALE',8287409398);
1 row created.

SQL> INSERT INTO CUSTOMERS VALUES(12107,'VISHU KUMAR',21,'MALE',8076520343);
1 row created.

SQL> SELECT*FROM CUSTOMERS;

-----
ID NAME                AGE GENDER CONTACT_NO
-----
12101 RAVI KUMAR          19 MALE   6206131380
12102 ANKESH KUMAR      19 MALE   6299143707
12103 NILU DEVI         20 FEMALE  8383818528
12104 AMBEDKAR SINGH    20 MALE   6203065407
12105 JYOTI SINGH       20 FEMALE  6205028700
12106 ASHISH JHA       22 MALE   8287409398
12107 VISHU KUMAR      21 MALE   8076520343
7 rows selected.

SQL>
```

→CREATE TABLE PHARMACIST(  
  
PHAR\_ID NUMBER(5) PRIMARY KEY,  
  
NAME VARCHAR(20),  
  
AGE NUMBER(3),  
  
GENDER VARCHAR(6),  
  
CONTACT\_NO NUMBER(10),  
  
ADDRESS VARCHAR(20));  
  
SELECT \* FROM PHARMACIST;

```
Run SQL Command Line
1 row created.

SQL> INSERT INTO PHARMACIST VALUES(12205,'MANIK PROCH',22,'MALE',6005387714,'JAMMU');
1 row created.

SQL> INSERT INTO PHARMACIST VALUES(12206,'AMAN KUMAR',23,'MALE',9006775879,'BHAGALPUR');
1 row created.

SQL> INSERT INTO PHARMACIST VALUES(12207,'RAJA KUMAR',22,'MALE',9546403101,'BHAGALPUR');
1 row created.

SQL> SELECT*FROM PHARMACIST;

  PHAR_ID NAME          AGE GENDER CONTACT_NO ADDRESS
-----
12201 DEEPAK KUMAR      19  MALE   6206131381 BHAGALPUR
12202 SUBODH KUMAR      21  MALE   6299749662 BANKA
12203 SHREEKANT SINGH    22  MALE   9801159946 BHAGALPUR
12204 MOHIT KUMAR       22  MALE   8603561422 JHARKHAND
12205 MANIK PROCH       22  MALE   6005387714 JAMMU
12206 AMAN KUMAR        23  MALE   9006775879 BHAGALPUR
12207 RAJA KUMAR        22  MALE   9546403101 BHAGALPUR

7 rows selected.

SQL>
```

```
→CREATE TABLE SALES(
SALES_ID NUMBER(5) PRIMARY KEY,
PHAR_ID NUMBER(5),
CUST_ID NUMBER(5),
PURCHASE_ID NUMBER(5),
TOTAL_AMOUNT NUMBER(5));

SELECT * FROM SALES;
```

```
Run SQL Command Line
SQL> INSERT INTO SALES VALUES(12303,12203,12101,12403,799);
1 row created.
SQL> INSERT INTO SALES VALUES(12304,12202,12104,12404,750);
1 row created.
SQL> INSERT INTO SALES VALUES(12305,12202,12101,12405,810);
1 row created.
SQL> INSERT INTO SALES VALUES(12306,12202,12102,12406,350);
1 row created.
SQL> INSERT INTO SALES VALUES(12307,12205,12104,12407,400);
1 row created.
SQL> SELECT *FROM SALES;

  SALES_ID   PHAR_ID   CUST_ID  PURCHASE_ID  TOTAL_AMOUNT
-----
    12301      12201      12103      12401           999
    12302      12201      12105      12402          1199
    12303      12203      12101      12403           799
    12304      12202      12104      12404           750
    12305      12202      12101      12405           810
    12306      12202      12102      12406           350
    12307      12205      12104      12407           400

7 rows selected.
SQL> █
```

→CREATE TABLE PURCHASING(  
PURCHASE\_ID NUMBER(5) PRIMARY KEY,  
CUST\_ID NUMBER(5),  
MRDICINE\_ID NUMBER(5),  
AMOUNT NUMBER(5)  
PURCHASE\_DATE DATE);

SELECT \* FROM PURCHASING ;

```
Run SQL Command Line
SQL> INSERT INTO PURCHASING VALUES(12403,12102,12505,320,'22/09/2022');
1 row created.
SQL> INSERT INTO PURCHASING VALUES(12404,12105,12505,320,'22/09/2022');
1 row created.
SQL> INSERT INTO PURCHASING VALUES(12405,12101,12502,499,'22/10/2022');
1 row created.
SQL> INSERT INTO PURCHASING VALUES(12406,12106,12502,320,'02/11/2022');
1 row created.
SQL> INSERT INTO PURCHASING VALUES(12407,12103,12502,500,'08/11/2022');
1 row created.
SQL> SELECT*FROM PURCHASING;
PURCHASE_ID  CUST_ID  MEDICINE_ID  AMOUNT  PURCHASE_D
-----
12401         12102        12501        300 12/10/2022
12402         12103        12504        330 12/10/2022
12403         12102        12505        320 22/09/2022
12404         12105        12505        320 22/09/2022
12405         12101        12502        499 22/10/2022
12406         12106        12502        320 02/11/2022
12407         12103        12502        500 08/11/2022
7 rows selected.
SQL>
```

→CREATE TABLE MEDICINES(  
MEDICINE\_ID NUMBER(5) PRIMARY KEY,  
NAME VARCHAR(20),  
PRICE NUMBER(5),  
EXP\_DATE DATE);  
SELECT \* FROM MEDICINES ;

```
Run SQL Command Line
1 row created.
SQL> INSERT INTO MEDICINES VALUES(12504,'ANTIBIOTICS',70,'JAN-2025');
1 row created.
SQL> INSERT INTO MEDICINES VALUES(12505,'ANTI HISTAMINES',150,'SEP-2024');
1 row created.
SQL> INSERT INTO MEDICINES VALUES(12506,'OMEPRAZOLE',130,'FEB-2025');
1 row created.
SQL> INSERT INTO MEDICINES VALUES(12507,'METFORMIN',199,'NOV-2023');
1 row created.
SQL> SELECT * FROM MEDICINES;
MEDICINE_ID NAME PRICE EXP_DATE
-----
12501 HYDROCODONE 100 NOV-2024
12502 LOSARTAN 130 NOV-2023
12503 PARACETAMOL 50 JAN-2024
12504 ANTIBIOTICS 70 JAN-2025
12505 ANTI HISTAMINES 150 SEP-2024
12506 OMEPRAZOLE 130 FEB-2025
12507 METFORMIN 199 NOV-2023
7 rows selected.
SQL>
```

```
→CREATE TABLE REPORTS(
REPORT_ID NUMBER(5) PRIMARY KEY,
PURCHASE_ID NUMBER(5),
SALES_ID NUMBER(5),
CUST_ID NUMBER(5),
REPORT_DATE DATE);
SELECT * FROM REPORTS ;
```

```
Select Run SQL Command Line

SQL> INSERT INTO REPORTS VALUES(12604,12407,12304,12102,'24/11/2022');
1 row created.

SQL> INSERT INTO REPORTS VALUES(12605,12408,12307,12105,'24/09/2021');
1 row created.

SQL> INSERT INTO REPORTS VALUES(12606,12408,12301,12105,'24/08/2022');
1 row created.

SQL> INSERT INTO REPORTS VALUES(12607,12403,12304,12107,'29/10/2022');
1 row created.

SQL> SELECT*FROM REPORTS;

REPORT_ID PURCHASE_ID  SALES_ID  CUST_ID REPORT_DAT
-----
12601      12402      12304    12106 31/10/2022
12602      12404      12304    12102 21/10/2022
12603      12407      12301    12101 27/11/2022
12604      12407      12304    12102 24/11/2022
12605      12408      12307    12105 24/09/2021
12606      12408      12301    12105 24/08/2022
12607      12403      12304    12107 29/10/2022

7 rows selected.

SQL>
```


```
→CREATE TABLE STOCKS(STOCK_ID NUMBER(5),
MEDICINE_ID NUMBER(5),
QUANTITY NUMBER(5));

SELECT * FROM STOCKS ;
```

```
Run SQL Command Line
SQL> INSERT INTO STOCKS VALUES(12704,12501,195);
1 row created.
SQL> INSERT INTO STOCKS VALUES(12705,12504,300);
1 row created.
SQL> INSERT INTO STOCKS VALUES(12706,12501,246);
1 row created.
SQL> INSERT INTO STOCKS VALUES(12707,12503,150);
1 row created.
SQL> SELECT*FROM STOCKS;

STOCK_ID MEDICINE_ID QUANTITY
-----
12701      12502      200
12702      12507      210
12703      12505      198
12704      12501      195
12705      12504      300
12706      12501      246
12707      12503      150

7 rows selected.
SQL>
```



## Result and Discussion

By using MySQL commands and its database this website Pharmacy management tends to store all the data received from the users including drugs sales details and the profit made by the owners are all in this data base. This website allows the user to generate invoices for sales, check expiry and quantity remaining of the drugs. It also provides user with options to renew validity and add more drugs into the store and

update the database accordingly. By using xampp server these database commands are easily initiated into the database and the ER diagram with relational schema diagrams helps us to make the structure of the database faster and it was easier to make them understand the needs of the website.

## CONCLUSIONS AND FUTURE SCOPE

- Detailed information gathering has to be done. Without that the purpose for using the software won't be satisfied properly.
- However, it can give good profits in the long run.
- Implementing the software requires change in the business practices.
- Efficient organization of all knowledge is the analysis company and easy analysis access and retrieval of information is possible.
- In this project we can also include BAR CODE facility using the bar code reader, which will detect the expiry date and the other information about the related medicines.
- Company using this software will always be able to plan in future and always be aware of their financial position in the market.
- It leads to ease in functioning of business processes.
- The project can be made more robust by including biometric verification.
- There is also a scope to expand by implementing newer technologies like cloud etcetera.