

ST JOSEPH ENGINEERING COLLEGE
An Autonomous Institution
Affiliated to VTU, Belagavi
Mangaluru-575028



MINI PROJECT REPORT ON
“PHARMACY DATABASE MANAGEMENT”

Submitted By

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**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING
2022-2023**

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CERTIFICATE

Certified that the project work entitled “Pharmacy Management System” carried out by

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bonafide students of IV semester students in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of St Joseph Engineering College during the year 2022-23. It is certified that all corrections/suggestions indicated during Internal Evaluation have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of miniproject work .

Ms Pruthiv M R
Project Guide

Dr Sridevi Saralaya
HOD-CSE

EXTERNAL VIVA

NAME OF THE EXAMINER

SIGNATURE

- 1.
- 2.

Acknowledgment

The satisfaction and euphoria that accompanies the successful completion of any task would be incomplete without mentioning the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

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Abstract

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.

This program can be used in any pharmaceutical shops having a database to maintain it. 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.

The aim of the project is to create an effective software to help the pharmacist to maintain the records of the medicines, handle user details, generate invoice, check and renew validity and provide a scope of communication between users by using inbuilt messaging system. Pharmacy management system deals with the maintenance of drugs and consumables in the pharmacy unit. This pharmacy management system is user friendly.

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Chapter 1

Introduction

The project's primary objective is to streamline pharmaceutical shop database management through the development of a Pharmacy Management System. This system ensures precise medication tracking, bolstering safety and operational efficiency within the store. Our software enables effective stock control, report generation, and secure user access, facilitating seamless interaction between users via an integrated messaging system. It addresses the complex demands of pharmacy management, catering to both administrative and employee needs, offering a user-friendly solution for pharmaceutical establishments.

1.1 Problem Definition

The problem at hand involves the need for an efficient software solution to aid pharmacists in effectively managing medication records, user information, invoice generation, validity checks, and fostering communication among users within a pharmacy unit. This challenge necessitates the development of a user-friendly Pharmacy Management System capable of handling intricate pharmacy operations and catering to administrative and employee requirements, ultimately enhancing overall pharmacy management.

1.2 Scope and Importance

The scope of this Pharmacy Management System encompasses comprehensive medication tracking, user management, invoicing, and communication features, serving pharmaceutical stores of various sizes. Its significance lies in improving accuracy, safety, and efficiency in pharmaceutical operations, reducing errors, enhancing customer service, and enabling better stock control. This system caters to the evolving needs of the pharmacy industry, contributing to its modernization and growth.

Chapter 2

Software Requirement Specification

2.1 Description on Implementation

List of modules

- Login page
- Homepage
- Company
- Purchase
- Drugs
- Sales
- User/Settings
- Messaging

2.2 Software Requirement Specification

Software Requirement Specification

- **Language** : Java
- **Database used**: MySQL.
- **Design used**: Java.
- **Operating System**: Window 11.
- **Software used**: XAMPP.

2.3 Hardware Requirement Specification

- **Installed Memory** : 2GB or Higher
- **Processor**: 1GHz or Higher.
- **Hard Disk Space**: 16GB availability .
- **Display**: Standard output display.

Chapter 3

System Design

3.1 ER Diagram

Figure:3.1 shows the ER diagram of student database.

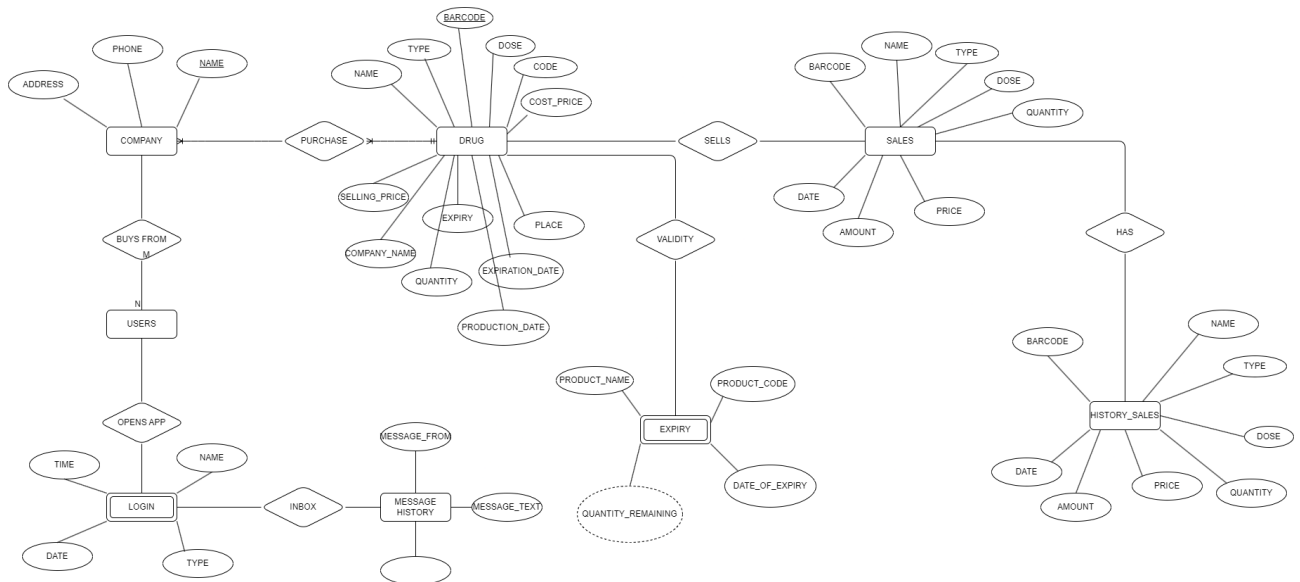


Figure 3.1: ER diagram

3.2 Schema Diagram

Figure:3.2 shows the Schema Diagram of student Database.

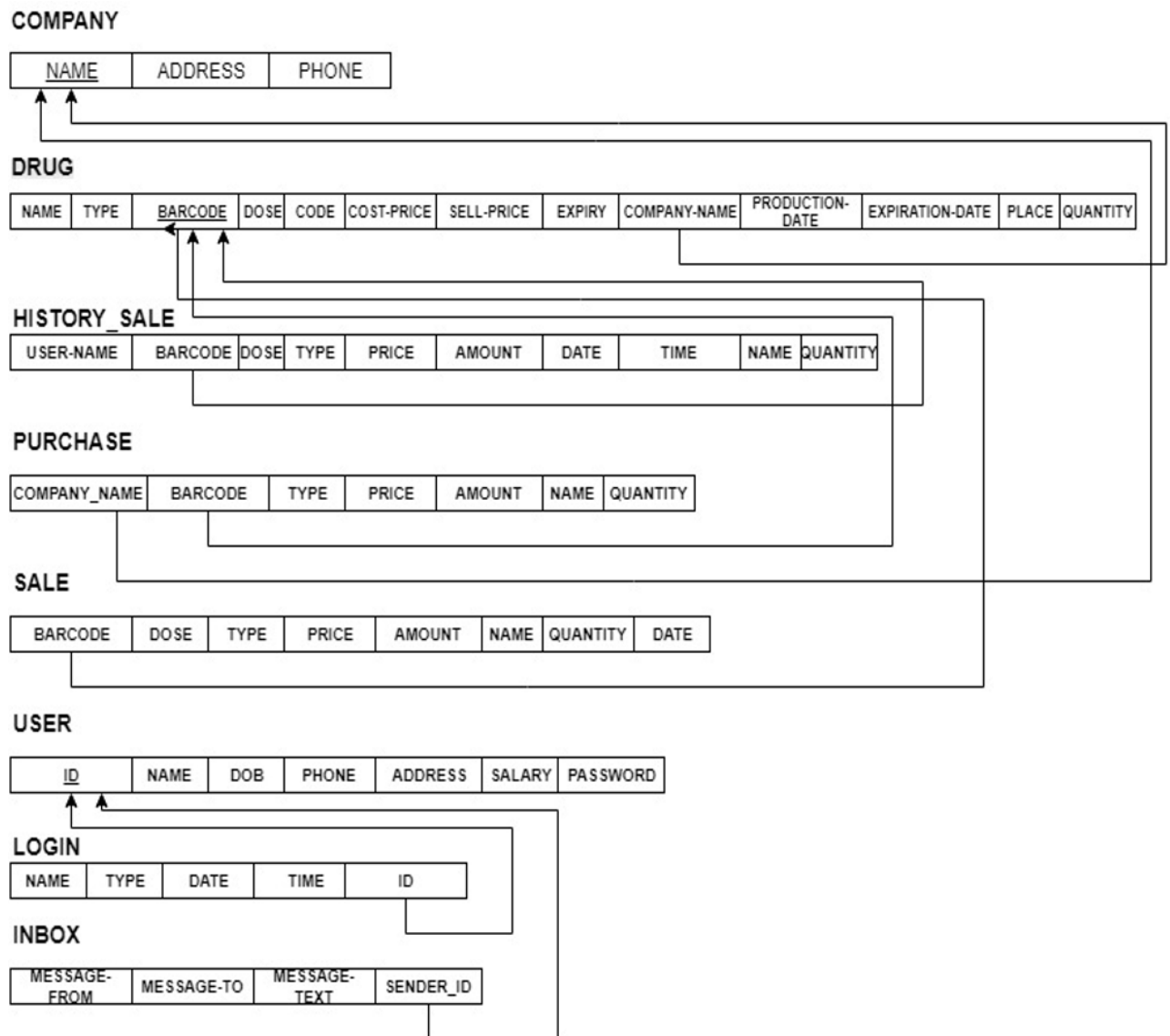


Figure 3.2: Schema diagram

3.3 Table description

Table:3.1

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2 ADDRESS	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3 PHONE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More

Table 3.1: company table

Table:3.2

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2 TYPE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3 BARCODE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4 DOSE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	5 CODE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	6 COST_PRICE	double			No	None			Change Drop More
<input type="checkbox"/>	7 SELLING_PRICE	double			No	None			Change Drop More
<input type="checkbox"/>	8 EXPIRY	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	9 COMPANY_NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	10 PRODUCTION_DATE	date			No	None			Change Drop More
<input type="checkbox"/>	11 EXPIRATION_DATE	date			No	None			Change Drop More
<input type="checkbox"/>	12 PLACE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	13 QUANTITY	int(11)			No	None			Change Drop More

Table 3.2: drugs table

Table:3.3

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 PRODUCT_NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2 PRODUCT_CODE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3 DATE_OF_EXPIRY	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4 QUANTITY_REMAIN	int(11)			No	None			Change Drop More

Table 3.3: expiry table

Table:3.4

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	USER_NAME	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	BARCODE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4	TYPE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	5	DOSE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	6	QUANTITY	int(11)			No	None			Change Drop More
<input type="checkbox"/>	7	PRICE	double			No	None			Change Drop More
<input type="checkbox"/>	8	AMOUNT	double			No	None			Change Drop More
<input type="checkbox"/>	9	DATE	varchar(15)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	10	TIME	varchar(20)	latin1_swedish_ci		No	None			Change Drop More

Table 3.4: history of sales table

Table:3.5

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	MESSAGE_FROM	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	MESSAGE_TO	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	MESSAGE_TEXT	varchar(200)	latin1_swedish_ci		No	None			Change Drop More

Table 3.5: inbox table

Table:3.6

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	TYPE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	DATE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4	TIME	varchar(20)	latin1_swedish_ci		No	None			Change Drop More

Table 3.6: login table

Table:3.7

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	MESSAGE_FROM	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	MESSAGE_TO	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	MESSAGE_TEXT	varchar(200)	latin1_swedish_ci		No	None			Change Drop More

Table 3.7: message history table

Table:3.8

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	BARCODE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	TYPE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4	COMPANY_NAME	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	5	QUANTITY	int(11)			No	None			Change Drop More
<input type="checkbox"/>	6	PRICE	double			No	None			Change Drop More
<input type="checkbox"/>	7	AMOUNT	double			No	None			Change Drop More

Table 3.8: purchase table

Table:3.9

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	BARCODE	varchar(20)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	2	NAME	varchar(50)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	3	TYPE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	4	DOSE	varchar(10)	latin1_swedish_ci		No	None			Change Drop More
<input type="checkbox"/>	5	QUANTITY	int(11)			No	None			Change Drop More
<input type="checkbox"/>	6	PRICE	double			No	None			Change Drop More
<input type="checkbox"/>	7	AMOUNT	double			No	None			Change Drop More
<input type="checkbox"/>	8	DATE	varchar(15)	latin1_swedish_ci		No	None			Change Drop More

Table 3.9: sales table

table:3.10























	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	ID 	int(11)			No	None			 Change  Drop  More
<input type="checkbox"/>	2	NAME	varchar(50)	latin1_swedish_ci		No	None			 Change  Drop  More
<input type="checkbox"/>	3	DOB	varchar(20)	latin1_swedish_ci		No	None			 Change  Drop  More
<input type="checkbox"/>	4	ADDRESS	varchar(100)	latin1_swedish_ci		No	None			 Change  Drop  More
<input type="checkbox"/>	5	PHONE	varchar(20)	latin1_swedish_ci		No	None			 Change  Drop  More
<input type="checkbox"/>	6	SALARY	double			No	None			 Change  Drop  More
<input type="checkbox"/>	7	PASSWORD	varchar(20)	latin1_swedish_ci		No	None			 Change  Drop  More

Table 3.10: users table

Chapter 4

Screenshots

Figure:4.1 shows the screenshot of Login page

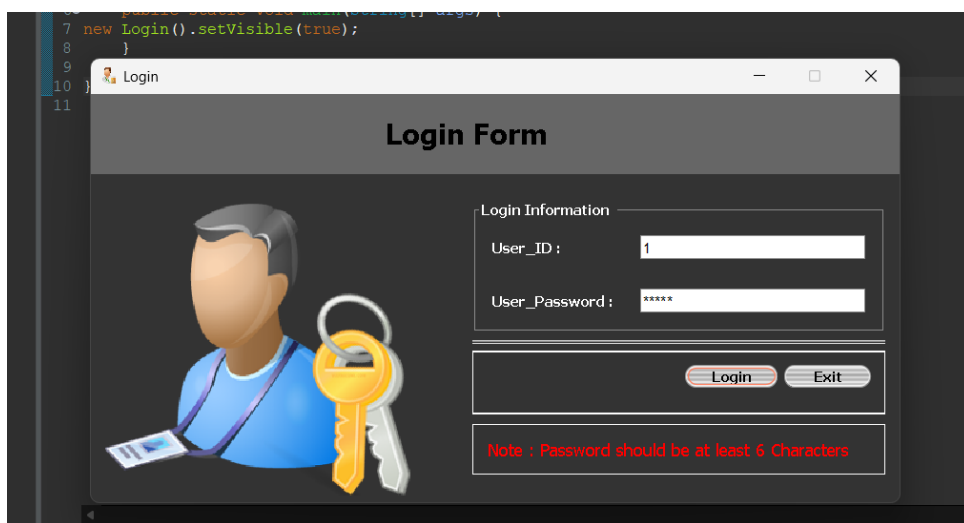


Figure 4.1: Login Page

Figure:4.2 shows the screenshot of home page

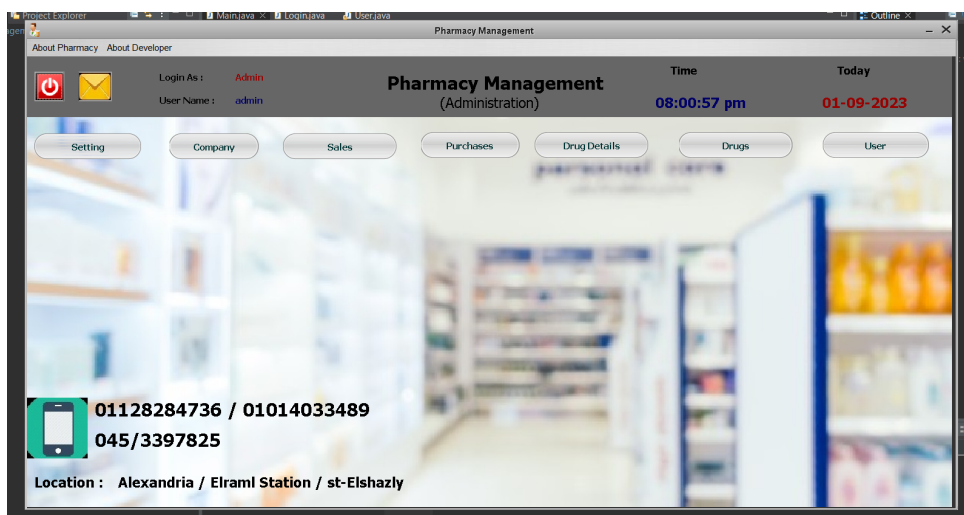


Figure 4.2: admin home Page

Figure:4.3 shows the screenshot of drug list

The screenshot shows a window titled "Drug_List Form" with a "Drug_List" header. Below the header is a "Sort By:" dropdown menu. The main area contains a table with the following data:

NAME	TYPE	BARCODE	SELLING_PRICE	EXPIRY	COMPANY_NAME
Novalo	Bills	fsdgjflhjorodsf	3.0	Available for use	Med_City
novafol	Bills	ftrkl432432md	40.0	Available for use	Med_City

Figure 4.3: drug list

Figure:4.4 shows the screenshot of user info

The screenshot shows a window titled "User Form" with a "User Form" header. The form is divided into two main sections: "User Details" and "Users Table".

User Details:

- User_Id:
- User_Name:
- DOB: Day Month Year
- Address:
- Phone:
- Salary:
- Password:

Users Table:

ID	NAME	DOB	ADDRESS	PHONE	SALARY
1	admin	23-12-1...	Someplac...	9800000...	50000.0
2	mark	3-2-1972	Bangalor...	0129078...	2000.0
3	clark	3-2-1971	Nowhere ...	0114789...	4000.0
4	Tont Stark	7-8-1977	10880 M...	0118043...	3000.0
5	john	4-4-1987	manglore	1234567...	2000.0

Buttons: Add User, Update User, Delete User, Cancel, Clear

Notes:

- (1-) User_Password Should be at least 6 Characters
- (2-) User_ID is Non-Adjustable , thanks

Figure 4.4: user info

Figure:4.5 shows the screenshot of deals list



The screenshot displays a web application window titled "Deals_List". Inside the window, there is a header "Deals_List Form" and a table with the following data:

BARCODE	NAME	COMPANY_NAME	QUANTITY	PRICE	AMOUNT
asdfgsdfg	dolo	Cipla	4	12.0	300.0
fsdgjfhjorodsf	Novalo	Med_City	40	2.0	80.0

Below the table, there is a large, empty rectangular area, likely intended for additional data or a summary.

Figure 4.5: deals list

Chapter 5

Conclusion and Future Scope

Conclusion

- Detailed information gathering has to be done. Without that, the purpose for using the software won't be satisfied properly.
- Implementing the software requires a change in business practices.
- Efficient organization of all knowledge and easy retrieval of information is possible.
- It leads to ease in functioning of business processes

Future Scope

- In this project, we can also include Bar code using bar code reader which will detect the expiry date and other related information.
- Project can be made more robust by adding bio-metric verification.
- There is also scope to expand by implementing newer technologies like AI,cloud etc.

Bibliography

- [1] Ramez Elmsari Shamkant and B.Navathe e “*Database System Models, Languages Design and Application Programming*”,Pearson 7th Edition 2017.
- [2] Ramakrishna and Gehrke *Database Management Systems*, McGraw Hill 3rd Edition 2014.
- [3] *MySQL Documentation*
- [4] *Youtube*
- [5] *Google*