

**“ONLINE PHARMACY MANAGEMENT SYSTEM”**

**BY**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

**SUMMER-2020**

## APPROVAL

This Project titled “**Online Pharmacy Management System**”, submitted by Name: **Hasan Habibur Rahman** and **Mohammad Abul Kalam Azad**, ID No: **172-15-9961** and **172-15-10085** to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on **07/11/2020**.

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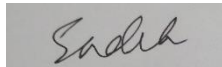



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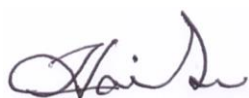
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## DECLARATION

We hereby declare that; this project has been done by us under the supervision of **Dr. Sheak Rashed Haider Noori, Associate Professor & Associate Head, Department of CSE**, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

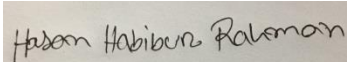
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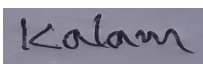
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## **ABSTRACT**

An Inventory management system is a system that automates all the processes involved in inventory management. These system are a vital part of any successful business and is basically used to efficiently track inventory using both hardware and software tools. The objective of this work is to design, [2] model by which a person can lead multiple pharmacy by our pharmacy management system. This report includes such a platforms named, "Online Pharmacy Management System". The main endeavor of this project is to find medicine easily and pharmacist can run their system. We will provide huge drug storing systems that will facilitation the users to store drug. By our project we will take aside the obstructive of buying rare drug as well as user could easily do searching task in terms of finding drug. All of the features of our project provide service about the contemplation of medicine store management solution.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Pharmacies in our state are not conduct inventory management system. Inventory is being performing by paper works. Small numbers of them are run a basic inventory management system.

Pharmacies in our land are doing traditional paper based manual system and some have no accurate system. Expire date, availability of stocks, leveling of medicines are not feasible for paper based system.

We will confer the pharmacy owner our system by which they could operate his/her business by the system which we would provide them, he/she have chance to show the details of all branches selling and buying status. The system user could get the information of low stock of drug and learn which drug is most demanded. The system inventory will provide the capability to the owner to store medicine accordingly.

We need to select the language and tools by which we will prepare our project. Model View Controller (MVC) which is one of the most powerful method for developing PHP application has many variant such Laravel, Symfony, CodeIgniter, CakePHP etc. [1]. We find that Java Spring Framework with MVC is handy for our project as well as very flexible, so we start learning MVC. Before making this project we are don't know, how to use Spring Framework with MVC. Then we are studying the Framework and now we gained knowledge.

In our report, we have look for how to conduct inventory. It is operative and workable, favorable to pharmacist.

## **1.2 Motivation**

Motivation is very momentous to make any verdict as well as to overpass any task amply. We attained impetus from our supervisor to build our planning task. His forthwith dictation fact is that it is very crucial for our lifetime. He boosts to us each period of the project.

## **1.3 Objectives**

Our project purpose is to facilitate the pharmacy owner by inventory system. Then, we have done research and found that one third of them do not use inventory system those who use the technology is not modernize which is the fact of wastage of time. In our portal we will remove this types of problem on the other hand our inventory will upgrade day by day because we will continuing our project in future scope.

## **1.4 Expected Outcome**

We expect our project will assist pharmacy owner to dispel their drug storing impediment. A pharmacist can observe his daily revenue statistics and he will get notification about the stock details of drug as well as expire date of the drugs will also notified to the pharmacist by notification.

## 1.5 Report Layout

**In the chapter (1)** here plotted introduction, objective, motivation, expected outcomes.

**In the chapter (2)** discussion of background study and works on internet.

**In the chapter (3)** we arrayed Use Case diagram and description.

**In the chapter (4)** Contain the figure of design and includes Class diagram and description.

**In the chapter (5)** Chapter have project testing and test description.

**In the chapter (6)** Survey and feedback is given there.

**In the chapter (7)** project limitation and future scope.

At last we end our project report and assemble several references.

## **CHAPTER 2**

### **BACKGROUND STUDY**

#### **2.1 Literature Review**

Now people are using technologies for diverse purposes. The medicine stores are seeing for scope to elevate their daily actions. An Inventory management system is a system that automates all the processes involved in inventory management. These system are an exigent part of any successful business and is materially used to efficiently track inventory using both hardware and software tools.

Greater portion pharmacies in nation country do not have any inventory management system. They are usage manual paper works for inventory management [2].

Pharmacy owner could operate his/her business by the system which we would provide them, he/she have chance to show the details of all branches selling and buying status. Our system inventory will provide the capability to the owner to store medicine accordingly.

## 2.2 Related Work

As this project as the way of drug so we have quest on the websites that are available now on internet.

The websites those are available at present on internet.

### **Existing websites:**

- ✓ E-pharma
- ✓ Bddrugs
- ✓ dhakapharma

### **E-pharma:**

Advantage: User can find medicine information and they are not the pharmacy owner they just sell the product as a third party [3].

Disadvantage: They do not provide inventory facilities, they sell product which is not related to the field.

### **bddrugs:**

Advantage: Have information about drug and show of the information is good and their response is quite well [4].

Disadvantage: Publish job add. Their biggest error is the show the adult add which is to boring and disgusting.

### **Dhakapharma:**

Their sever is down and now the page is not visible.

## 2.3 Challenges

The challenge in taken without any abridgement. Endeavor to solve all of leaking's of existing activity and added unique features. Project achievement is the ambition of we will gain it by more filed in the project.

## CHAPTER 3

### REQUIREMENT ANALYSIS

#### 3.1 Stakeholders

- ✓ User
- ✓ System
- ✓ Developer

#### 3.2 Use Case Diagram

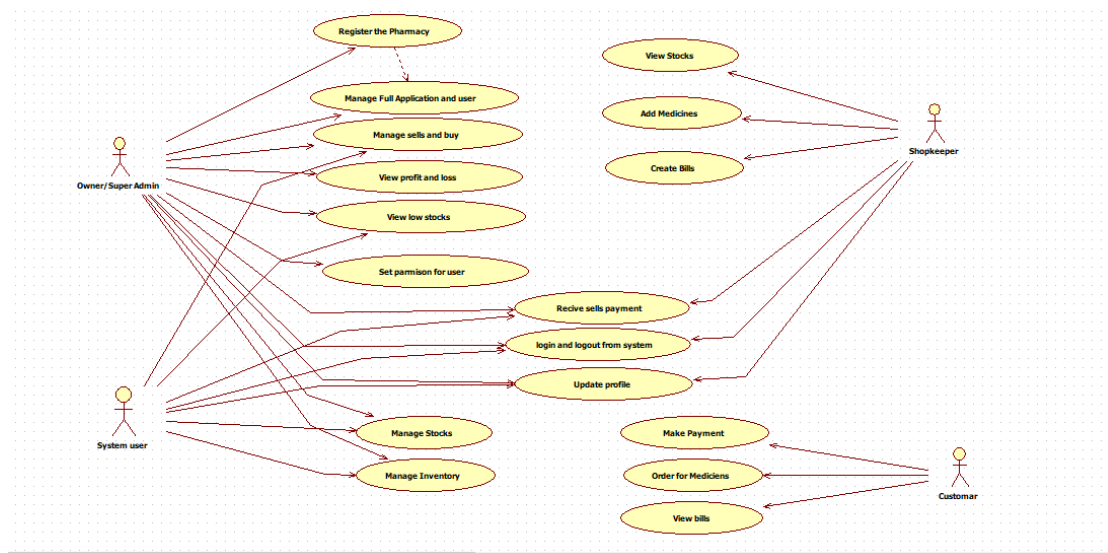


Figure 3.1: Use Case of Online Pharmacy

#### 3.3 Use Case Description

The Figure-3.1 shows the use case diagram which we narrate below.

Title: Register the Pharmacy

Summary: Gradation associated with registration of pharmacy.

Actor: Owner/Super Admin: Generate profile.

Flow of Event:

Pre-Condition:

- ✓ Must have account.
- ✓ Page will appear only if registration will held successfully.

Main- Scenario:

- ✓ Manage full application and user
- ✓ Set permission for user.
- ✓ View profit/loss.

Error-Scenario:

- ✓ Owner fills up login page but not log in.
- ✓ User fill up user page but not login.
- ✓

Post Condition:

- ✓ Owner page will appear in a section.
- ✓ Owner will set user and view the user after creation.

Title: Log In

Summary: This case describe system log in and profile update criteria.

Actor:

System User: User performs login and maintaining.

Flow of Event:

Pre-Condition:

- ✓ User must need to register

Main- Scenario:

- ✓ Manage stock and inventory
- ✓ Update and create profile.

Error-Scenario:

- ✓ Input wrong information or password
- ✓ Input wrong user name.

Post Condition:

- ✓ Display the profile

Title: Add Medicine & Create Bills

Summary: This case describe the shopkeeper medicine add create bills and receive payment.

Actor:

- ✓ Shopkeeper: Play the role to add medicine in inventory and maintain the stock information.

Flow of Event:

Pre-Condition:

- ✓ Shopkeeper must need to log in the system.
- ✓ Must need to have account.

Main- Scenario:

- ✓ Input medicine name
- ✓ Input medicine group
- ✓ Input medicine price
- ✓ Maintains sells report

Error-Scenario:

- ✓ Input wrong user name and password
- ✓ Medicine is not add to the list of inventory
- ✓ Bills amount error

Post Condition:

- ✓ Display message of successful of medicine addition.

Title: Make Payment

Summary: This case describes the customer medicine buy and payment process.

Actor:

- ✓ Customer: perform the steps to search and buy medicine.

Flow of Event:

Pre-Condition:

- ✓ Must need to order medicine
- ✓ Create account
- ✓ Online process

Main- Scenario:

- ✓ Customer select the medicine
- ✓ They select the group
- ✓ Pay the bills

Error-Scenario:

- ✓ Must include medicine name otherwise buying is not possible.



## CHAPTER 4

### DESIGN AND IMPLEMENTATION

#### 4.1 Database Design

Figure 4.1 is ER diagram of the project. Entities are Item Entry, Sales Entry and Buy Entry. Sales entity derived Sales Return and customer Entry entities are store sales information. Entity has several attributes and the Buy Entity linked with the Item Entry, Buy return, Supplier Payment entity. Page Permission also amalgamated with Create User entity.

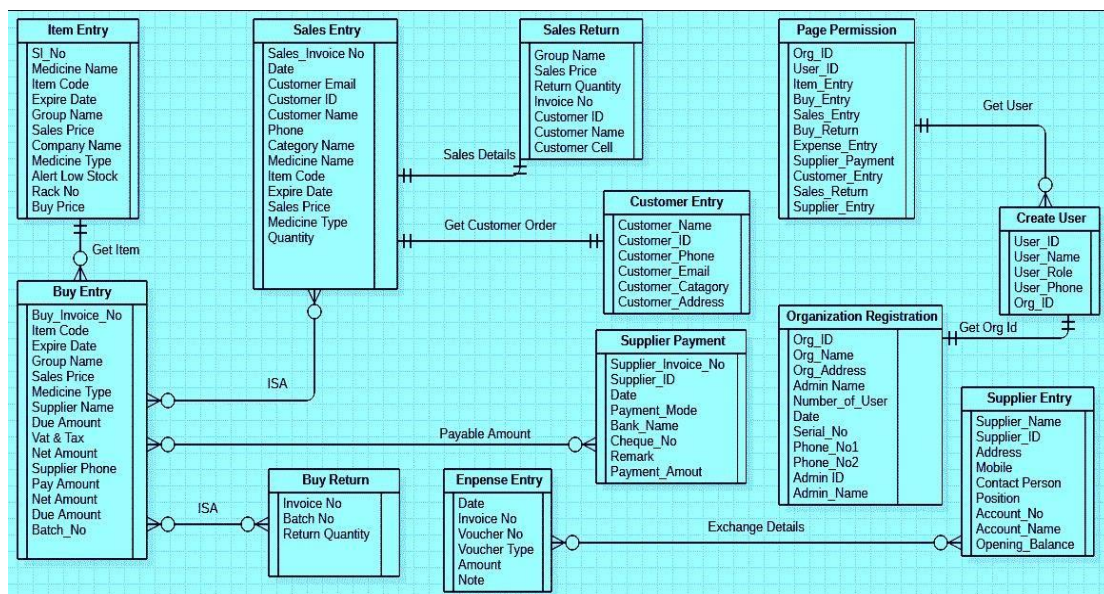


Figure 4.1: ER Diagram of Online Pharmacy Management System

## 4.2 Class Diagram

Below figure 4.2 is the class diagram of the project.

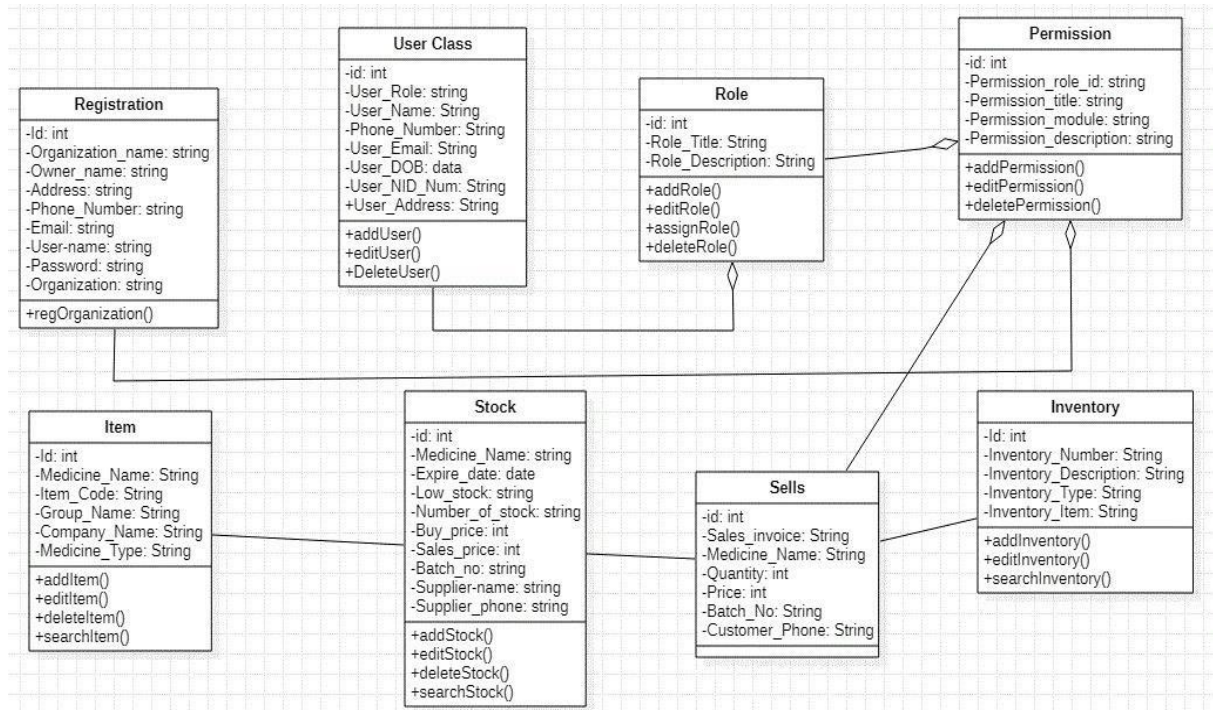


Figure 4.2: Class Diagram

## 4.3 Language and Tools

- | **Java Spring Framework with MVC**
- | **Database access with JDBC & Hibernate**
- | **jQuery, JavaScript.**
- | **JSON, AJAX**
- | **HTML, CSS, Bootstrap**

## 4.4 FEATURES

There has many websites related to our project on Google .Our features is minutely varied than others and we take new elements in our work.

### **Register**

- User Email Address
- Password

### **Data Table**

- Employee Name/Age
- Employee Position
- Employee Salary

### **Buy Entry**

- SL No
- Medicine Name
- Item Code

### **Sales Entry**

- Invoice No
- Date
- Customer ID
- Customer Name

### **Item Entry**

- Medicine Name
- Company Name
- Medicine Type
- Item Code

### **Sales Return Entry**

- Invoice No
- Customer ID
- Customer Name

**Register:**

On beginning, user will find an option to create profile. Profile is being created by user through password and email. There will be two options, Email & Password. User will put his/her email & password on the required field.

**Data Table:**

In this section, all the information of inventory system will contain, which is, how much data is stored, how much products is sell today. What is the value of profit/loss daily basis and it will give stock and sell information.

**Buy Entry:**

Here all the buying medicine entry will held, the entry will store to the database of inventory system. A owner entry the name, generic, price, supplier details, expire date of medicine, security those task is done in buy entry section.

**Sales Entry:**

All the sales details is store in the sales entry, the user will see the profit/loss status at the end to the entry.

**Item Entry:**

Here the entire item is store directly to the inventory database. User will entry item code, name, group, price status.

**Sales Return:**

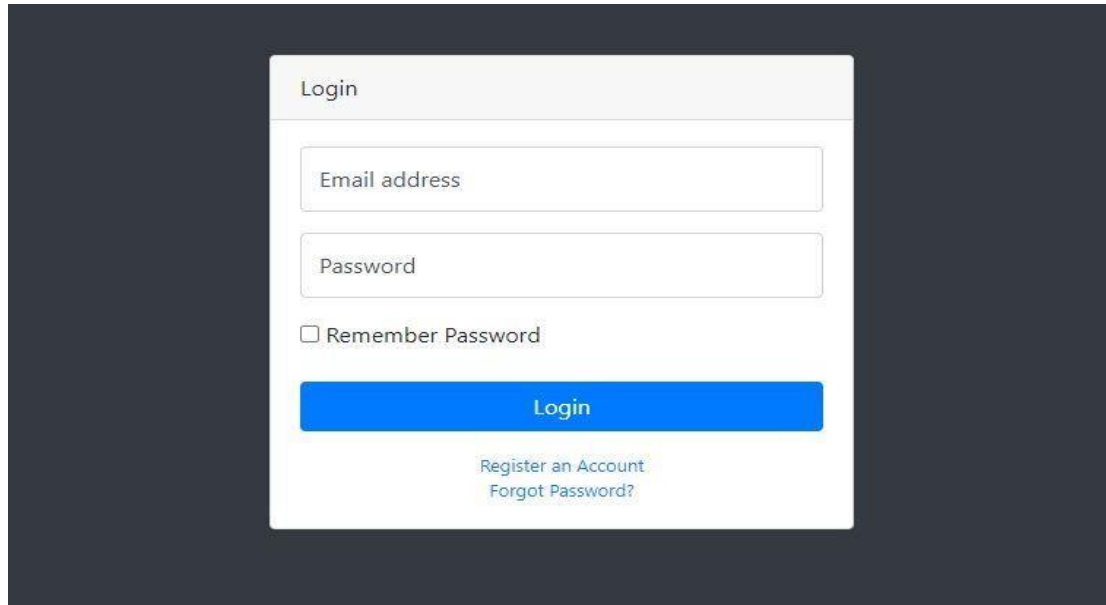
Return medicine which will also store to the inventory database based on the inventory. If any product return from buyer then it will entry here.

**Purchase Return:**

If any medicine is seems to damage and expire of date then the medicines needs to return and it will entry to the system.

## 4.5 How Our App Works

Launching of our system under Figure 4.3 will seem. The login screen of this system.

The image shows a login form titled "Login" on a dark background. The form is white and contains the following elements: a text input field for "Email address", a text input field for "Password", a checkbox labeled "Remember Password", a prominent blue button labeled "Login", and two links at the bottom: "Register an Account" and "Forgot Password?".

Login

Email address

Password

Remember Password

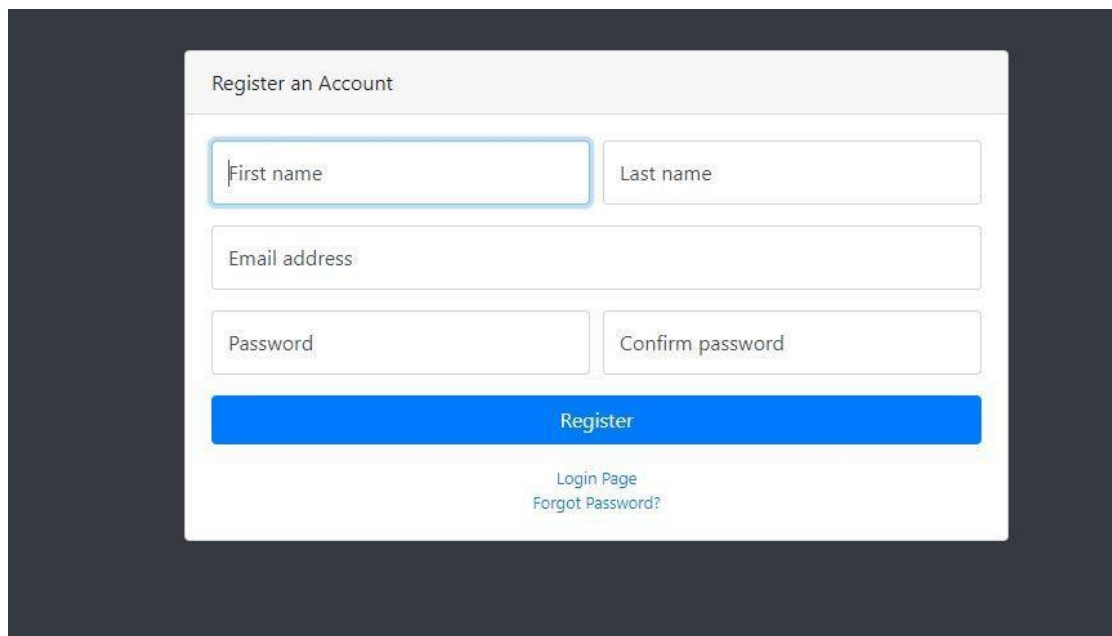
Login

[Register an Account](#)

[Forgot Password?](#)

Figure 4.3: Login Screen

This is the registration page which will come first before login. Prime activity of our system is user create profile/login. This is seen in Figure 4.4

The image shows a registration form titled "Register an Account" on a dark background. The form is white and contains the following elements: two text input fields for "First name" and "Last name", a text input field for "Email address", two text input fields for "Password" and "Confirm password", a prominent blue button labeled "Register", and two links at the bottom: "Login Page" and "Forgot Password?".

Register an Account

First name Last name

Email address

Password Confirm password

Register

[Login Page](#)

[Forgot Password?](#)

Figure 4.4: Registration/ Create Profile Screen

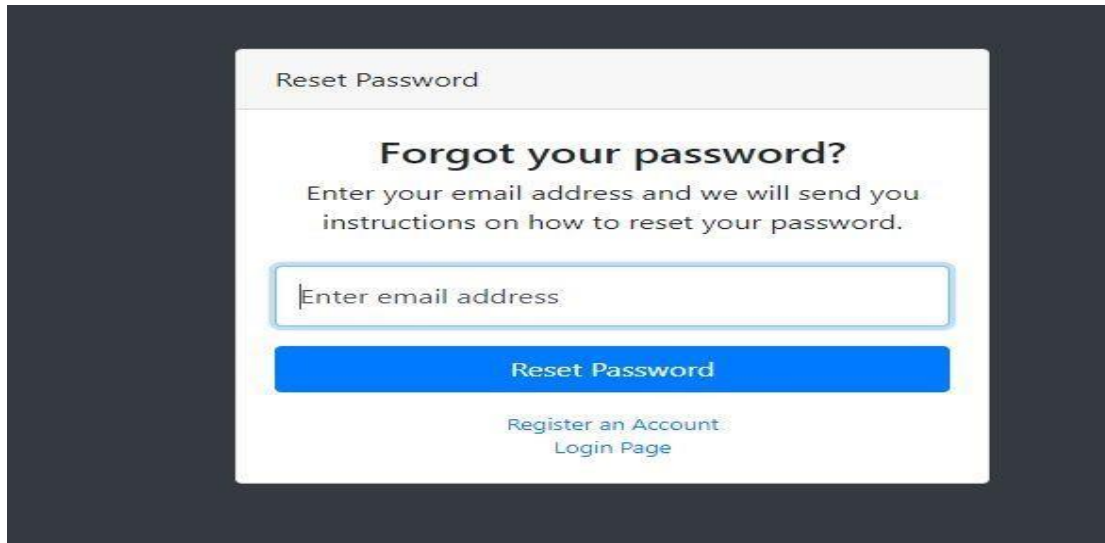


Figure 4.5: Forgot Password

Home page of our system looks like figure 4.6

Invoice No	Item Code	Item Name	Quantity	Buy Unit Price	Discount	Amount	Action
ACD2514	SQ45	AcePluse	5	2	0	10	<a href="#">Edit</a> <a href="#">Delete</a>
Invoice No	Item Code	Item Name	Quantity	Buy Unit Price	Discount	Amount	Action

Figure 4.6: Homepage After Login

If user wants to do buy entry the figure 4.14 is.

Dashboard / Buy Entry

Buy Entry Table

SL No	<input type="text" value="Serial Number"/>	Date	<input type="text" value="mm/dd/yyyy"/>
Medicine Name	<input type="text" value="Medicine Name"/>	Batch No	<input type="text" value="Batch No"/>
Item Code	<input type="text" value="Item Code"/>	Medicine Type	<input type="text" value="Select anyone"/>
Exp Date	<input type="text" value="mm/dd/yyyy"/>	Quantity	<input type="text" value="Quantity"/>
MRP per Unit	<input type="text" value="MRP per Unit"/>	Buy Price per Unit	<input type="text" value="Buy Price per Unit"/>
Alert Low Stock	<input type="text" value="Alert Low Stock"/>	Rack No	<input type="text" value="Rack No"/>
Supplier Name	<input type="text" value="Supplier Name"/>	Supplier Phone	<input type="text" value="Supplier Phone"/>

Show  entries Search:

Figure 4.7: Buy Entry Form

If user wants to do Sales entry feature in our system is in figure 4.8.

Dashboard / Sales Entry

Sales Entry Table

Invoice No	<input type="text" value="Invoice No"/>	Customer ID	<input type="text" value="Customer ID"/>
Date	<input type="text" value="mm/dd/yyyy"/>	Customer Name	<input type="text" value="Customer Name"/>
Email	<input type="text" value="Email"/>	Phone	<input type="text" value="Phone"/>
Address	<input type="text" value=""/>	Category	<input type="text" value="Select anyone"/>

Show  entries Search:

Figure 4.8: Sales Entry

If user wants to do Sales Return entries figure 4.9.

Dashboard / Sales Return Entry

Sales Return Entry Table

Invoice No	<input type="text" value="Invoice No"/>	Customer ID	<input type="text" value="Customer ID"/>
Date	<input type="text" value="mm/dd/yyyy"/>	Customer Name	<input type="text" value="Customer Name"/>
Email	<input type="text" value="Email"/>	Phone	<input type="text" value="Phone"/>
Address	<input type="text" value=""/>	Category	<input type="text" value="Select anyone"/>

Show  entries Search:

Figure 4.9: Sales Return form

If user wants to do Item Entry in our system, the feature in our system is following figure 4.10

Dashboard / Buy Entry

### Item Entry

SL No	<input type="text" value="Serial Number"/>	Company Name	<input type="text" value="Select anyone"/>
Medicine Name	<input type="text" value="Medicine Name"/>	Medicine Type	<input type="text" value="Select anyone"/>
Item Code	<input type="text" value="Item Code"/>	Alert Low Stock	<input type="text" value="Alert Low Stock"/>
Exp Date	<input type="text" value="mm/dd/yyyy"/>	Rack No	<input type="text" value="Rack No"/>
Group Name	<input type="text" value="Select anyone"/>	Buy Price per Unit	<input type="text" value="Buy Price per Unit"/>
Sales Price per Unit	<input type="text" value="Buy Price per Unit"/>		

Figure 4.10: Item Entry Form



## CHAPTER 5

### TESTING

#### 5.1 Testing

The test-cases are basically create based on the below test cases

- ✓ Unit Testing
- ✓ Integration Testing
- ✓ Regression Testing
- ✓ System Testing

#### **Unit Testing:**

Every activity is tested.

Profile test finding medicine.

Testing medicine information.

#### **Integration Testing:**

Command to previous.

#### **Page Regression Testing:**

Data network not enabled inventory not shown

#### **System Testing:**

- Whole system is tested to insure the workability

## **CHAPTER 6 EVALUATION**

Know subsidiary and deft of project we think to set an evaluation. The evaluation mode of system is materially a survey. The intention of the evaluation is to check the amelioration of work. To receive a accurate view of the usefulness of our work among the different users we have provide them our system and ask questions related to our system.

We have found the reply is they are thinking we have done a sufficient work which is needed for a pharmacist to record their daily transaction of business. Several said that they have avail to erase time to sell.

## **CHAPTER 7**

### **CONCLUSION**

#### **7.1 LIMITATIONS**

- ✓ Mobile Phone access
- ✓ Book copy is not possible.
- ✓ Impossible for low hard drive space

#### **7.2 CONCLUSION**

To save our worthy time and Medicine storing section in our country, there is no apposite project on this area. So that is the fact behind that we select and pretend best afford.

Each intension has few hardest hindrance, we faced also. Hope our work will increase performance and reduce cost of pages.

#### **7.3 FUTURE SCOPE**

We try this project as testing and gaining knowledge thinking. We will prepare better design, more features and more user friendly options.

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