

Smart Pharmacy Sales and Inventory System

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Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project titled **Smart Pharmacy Sales and Inventory**, submitted by Md.Adnan Morshed, ID No: 163-15-8525 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 13/09/2019.

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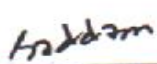
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Finally, I must acknowledge with due respect the constant support and patients to my parents.

ABSTRACT

Smart Pharmacy sales and Inventory System is one kind of Desktop Base application that is designed for any medicine shop for easily create medicine sales and find out medicine product easily. Admin user must be login for manage this system. Therefore, the system will also be helpful for sales and maintains medicine item .This can be a time consuming process. As you will physically have to go through each product box and browse through the items. A manual inventory system relies heavily on the actions of people which is increase the possibility of human error. With this system the company can easily do a computerized transaction without having efforts to manually list the name of the sold products and put it. Smart Pharmacy sales and Inventory project was developed with .Net technologies and all details of the customers will be saved in the SQL back end without any data loss.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The document introduces the system requirements specification (SRS) for the Pharmacy Sales Management System. The purpose of this SRS is to establish a connection between the customers and the development team to analyze, break down and verify complex customer requirement. It will also help to evaluate the solution to verify the understanding of the requirements is appropriate and complete. It helps system designer to gather necessary requirements to the design, development and testing teams. It will also serve as the basis for conducting the acceptance test & system test and will be the basis for the acceptance of the software to be delivered. Scope of this SRS is to specify system requirements of Sales module of BERP. The document provides different sections, subsections which describes the requirements of the Sales module in diagrams and specifications. Some of the areas that will be covered are order placement, product pricing, create general sale, create POS sale, create touch point of sale, approve and reject specific sales, create money receipt, create item wise payment collection, maintain sales return, create sales exchange , installment pricing, currency exchange and auto invoicing etc. Any system requirement not addressed by Sales module is out of scope of this document.

1.2 Motivation of work

I learned how to program in c, c++, java, and android developing code when I was 22. I found that I was good at it and had the ability to reason about the code very well. To make this a little more clearly, I became interested in programming and it became natural to learn how programming applied to interest.

1.3 Objectives

There are some objects such as

- Sales Order.
- POS Sales Invoice Report.
- Sales Money Receipt Report
- Sales Order Register.
- Sales Register Report
- Daily Statement (Sales) Report
- Sales Person Incentive Report
- Item wise Incentive Report
- Item wise payment collection Report
- Sales return
- Sales exchange
- Sales Price list with stock

1.4 Expected Outcome

Expected outcome of some are following

Authentication: User can sign up to the system by using different level of authorization.

Purchase order: Enter multiple medicine information as required.

Receive order: Enter delivery information as items are received.

1.5 Report Layout

In the chapter (1) I showed in chapter 1 introduction, motivation, software object and expected outcome to the software.

In the chapter (2) I showed in chapter 2 the software background introduction, comparative studies, scope of problem and Challenges.

In the chapter (3) I showed in chapter 3 how to BPM, Requirement Collection and analysis, use case, modeling and description and design requirement of the software.

In the chapter (4) I showed in chapter 4 software front-end and back-end design and interaction with Implement requirements.

In the chapter (5) I showed in chapter 5 how to implement of database, testing, and Testing Results and Reports.

In the chapter (6) I showed in chapter 6 Discussion and Conclusion and Scope for Further Developments.

CHAPTER 2

BACKGROUND

2.1 Introduction

The company as well use a manual points of sale inventory system which means the business compute and updates their points of sale and inventory by physical caution an counting the inventory items or products on a regular basis .Also it will state the explanation of inventory management system and the meaning of transaction processing. Project schedule is a project progress plan that shows the activities that has been plan throughout this project development. It will provide the guide to implement the progress of the project. In System Design the proposed system will be defined as tasks that focus on the specification of a detailed computer based solutions. System design is the most important phase of the System Development Life Cycle. The data catalogue of the proposed system will be defined and the relationship between the entities through the constraints will be identified.

2.2 Related Works

This system uses only for desktop base system. And it's use for medicine shop. That's why this system is not so much user friendly.

2.3 Comparative Studies

My system is different from other existing system because lots of the system is implemented in desktop application base and other system implemented by Microsoft Access and existing system for some hospital.

2.4 Scope of the Problem

My project aims is reduced the time and item maintain.

- To assist the staff in capturing the effort spent on their respective working areas.
- It satisfies the user requirement.
- Be easy to understand by the user and operator.
- Be easy to operate Have a good user interface.
- Be expandable.

2.5 Challenges

Before deployment:-

- Interoperability.
- Security.
- Performance.
- Usability.
- Maintains

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Business process modeling is widely viewed as a critical element in successful business process management. Fig: 3.1: shows BPM Diagram. [1]

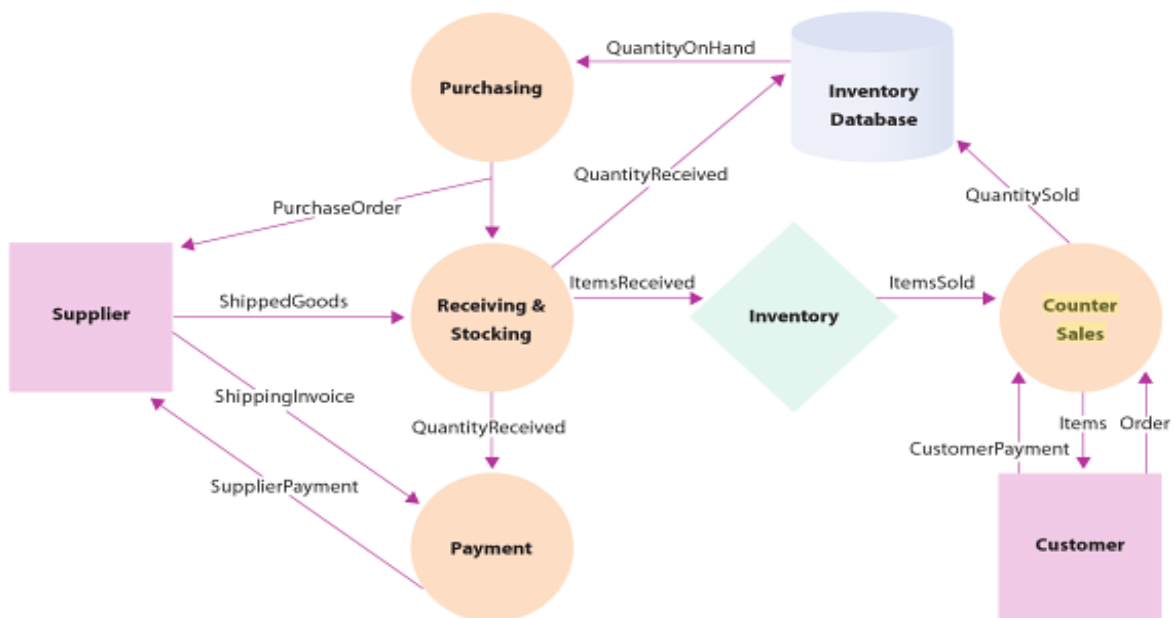


Fig: 3.1: Business Process Modeling Diagram

3.2 Requirement Collection & Analysis

I have collection fundamental requirements from field level. Some are following

- Admin how to use and inventory sales very easily with in short time.
- Admin creates product.
- Admin creates product company profile.

3.3 Use Case Description

3.1 Delete Item Group

USE Case ID	3.3
Actors	User
Before Conditions	1. The User must be singing into system.
After Conditions	1. System will store the information and will produce a confirmation message. 2. Created information will be manipulated according to User.

Flow of Events:

- a. The User selects the “Item Group” menu.
- b. The system provides the UI for viewing Item info information.
- c. For new data entry following information will be set in specific field.
 1. User writes textbox for group name.
- d. User clicks on “Save” button for saving information.
- e. System shows a confirmation

3.2 Item Type

USE Case ID	3.1
Actors	Admin
Pre Conditions	1. The Admin must be logged into system. 2. The Admin must have the permission to operate the function.
Post Conditions	1. System will store the information and will generate a confirmation message. 2. Created information will be manipulated according to user.

Flows of Events:

- a. The user selects the “item Type” menu.
- b. The system provides the UI for viewing “list of item type”.
- c. System shows data in Data Grid according to searching option/parameter.
- d. User clicks on Delete button for deleting information.
- e. System shows a confirmation message fig 3.2 Shows ...

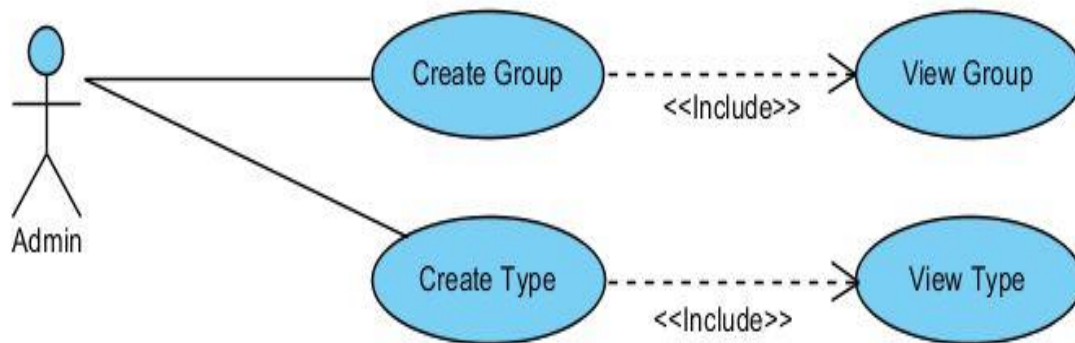


Figure 3.2: Item Type Use Case

3.4 Logical Data Modeling:

Figure 3.4 shows the structured of life cycle [3]

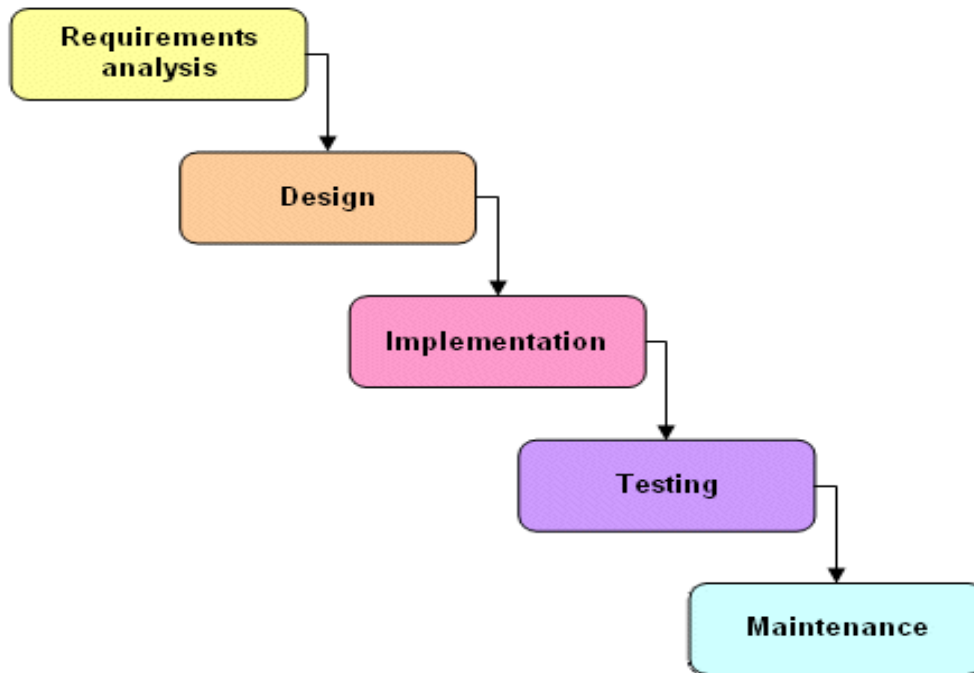


Figure 3.4 life cycle

3.5 Design Requirements

The steps for designing the logical data model are as follows:

1. Specify primary keys for all entities.
2. Find the relationships between different entities.
3. Find all attributes for each entity.
4. Resolve many-to-many relationships.
5. Normalization.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Good relationships require good communication. Often, the root of the problem is a lack of communication. A designer must clearly communicate how every piece of the design looks, works and feels to a developer. This communication comes in the form of design specifications.

4.2 Back-end Design

Admin will manage the software using default settings of the software. Admin will register the MR (Medical Representative). Admin will add the Medicine item and medicine company profile with item description. Admin will report and print PDF of medicine Stock and MR profile information.

4.3 Design and UX

4.3.1 User Experience Design:

User Experience Design is a higher order concept that encompasses countless design.

4.3.2 Interaction Design:

Interaction design concentrates on designing the flow whereby a user could locate information.

4.3.3 User Interface Design:

UI Design is the design of interfaces for devices.

4.4 Implementation of Requirements

Fig 4.1 shows Welcome Page



Fig: 4.1 welcome page.

Fig 4.2 shows Sale Page

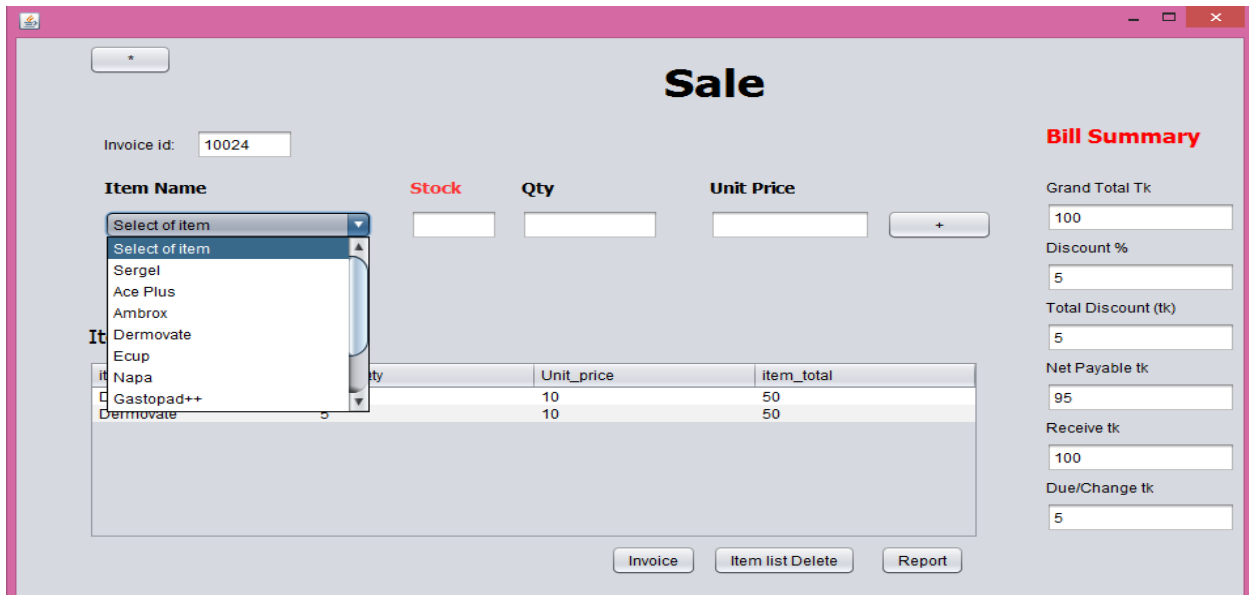


Fig: 4.2 Sale page.

4.4 MySQL Database

MySQL is used to create database for store any information. MySQL queries are used with java swing to do MySQL operation. I used MySQL for creating and designing my database for the system. Fig 4.4 shows the sketch of database. [3]

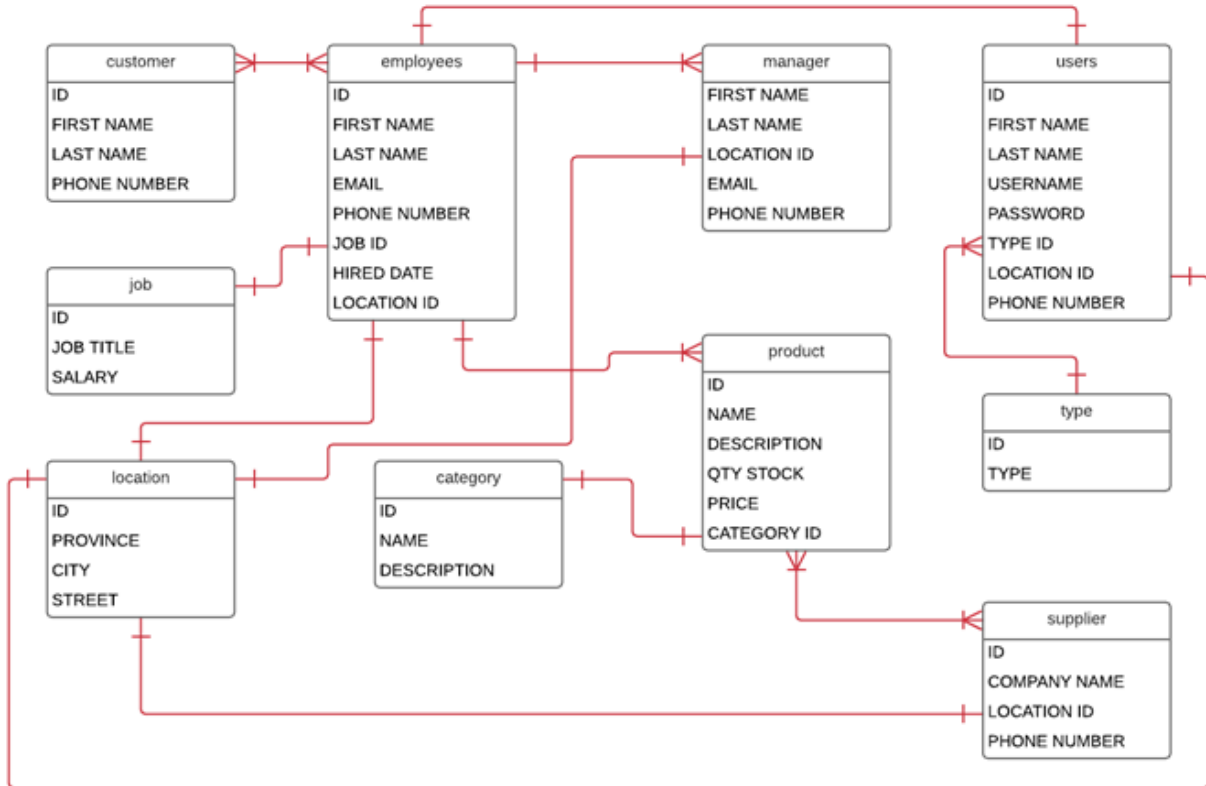


Figure 4.1: The schema of database

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

I set database store in this phase and give the various users that identified access applicable to their requirements. The following are steps in the implementation phase:

- ✓ Install the local xampp server.
- ✓ Creating the database and tables.
- ✓ Store the data.
- ✓ Set up the pharmacy product with MR Information.

5.2 Implementation of Interactions

Pharmacy inventory management system is complex systems that consist of interrelated and interlocking subsystems. The government of Bangladesh has realized the importance of improving the pharmaceutical sector in Bangladesh. For this, the govt. of Bangladesh takes a series of steps to growing this sector.

5.3 Testing Implementation

The system has been tested and everything has been found to be in working order, then the new inventory control can go live and be put to everyday use.

5.4 Test Results and Reports

Keeping my product assortments fresh and relevant is a must if I want to stay in business, so track my inventory. I can do that with the following reports:

- Low Stock
- Inventory On Hand
- Product Performance Report
- Sales Summary

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussion and Conclusion

The outcome of this study will represent the major achievements and promising avenues for future enhancements, which are likely to yield useful results. Biometrics can be used in verification and in identification mode.

6.2 Scope for Further Developments

I will try to propose for further improvements in this area

- Successful companies will view inventory as a strategic asset, rather than an aggravating expense or an evil to be tolerated.

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