Pharmacy Management System

Chapter:1

Introduction

Now a day's Information and communication technology (ICT) plays a great role in different fields including health care. It is necessary to ensure a technologically appropriate, equitable, affordable, efficient, and environmentally adaptable and consumer friendly system, designed to fully utilize the ICT for the maximum benefit in the health care industry.

In order to exploit the ICT in health care system, Pharmacy management system is being build. Pharmacy management system is robust, integrated technology. Pharmacy management system deals with the maintenance of drugs and consumables in the pharmacy unit. The set-up of this pharmacy management system will ensure availability of sufficient quantity of drugs and consumable materials.

In general, The Pharmacy management system is based on computer technology that gives service for pharmacy managers and workers who implementation of function relatively in effective times as well as will design for removing time wasting, saving resources, easy data access of the medicine, security on data input, data access, and data removing.

1.1 Problem Statement

The current Pharmacy system were manually base system which is almost all works on the pharmacy organization is accomplished by papers. Among this Medicine data search in order to buy, audit, and other related works. And the other one is data security, the data's can be accessed anyone who entered to the

pharmacy house as friends, other Humans without the volunteer of the pharmacist

The pharmacists work in tedious situation because of the upper reasons. Not efficient on arrange medicine on the shelf meaning arrangement method is difficult to take in mind.

In current system almost all pharmacies do not use computerized system but use computer for giving bills only for the sold medicine to the user. And use manual searching of medicine on shelf because of manual based system and there is nothing which gives alarm for the finished or sold medicine.

Also there is a difficulty on store the data which wastes resources as well as time to retrieve the necessary data from the manually based data system. So generally the current system does not arrange medicine in systematic way, does not store the medicine appropriate data, security for the data is low, does not indicate how much medicine is needed and sold quickly and efficiently.

The pharmacy system will implement by the pharmacy unit of the organization. At present, manual system is being utilized. This system requires the pharmacist to manually monitor each drug that is available in the pharmacy shelf. This involves manually entry up on arrival of batches of drugs and upon drugs' movement out of the unit, for example, dispensing to patients or product recall or loan to other clinics/hospitals. Upon a certain period, such as month, the pharmacist is required to generate reports on the movement of drugs. This is to monitor the justification of ordering in order to replenish the already diminishing stocks. In addition, ordering of drugs is also being done manually. Significant amount of time is allocated for writing order as one needs to go through the stocks' balance and rough estimate of the amount to order. This usually led to mistakes as one May over or under-order. Thus, in this aspect, the workload of a pharmacist increases. As a result, sometimes, patient care, in terms of counselling, is compromised due to time constraints.

1.2 Proposed Solution

Compared to the current manual system, the implementation of Pharmacy management system will have reduced the time spent for paperwork. With the proposed system, the user will be able to monitor the movement of the drugs with ease. It will bring fast movement for purchase and selling medicine. Also, it will give more exact data on monetary transection.

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1.2.1 Specific Objectives

- More than one user uses that software in same time, same database.
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- Maximize effectiveness of your record.
- Comply with legal requirement
- To store the customer, medicine information
- To eliminate the duplication of work.
- To provide the maximum option for generate report.
- To provide maximum security.
- To track and check the information by the management and take action

Chapter:2

Related Projects

There are some Medicine Management System available in the Market. But lots of their solutions are lengthy or more complicated. It is badly unfair because we use technology so that we make our life easier.

Existing Medicine Management Systems are provided by these company below:

- Zaman It
- Software Solution Company

2.1 Their Features

- Can add unlimited customers name and their details like address, mobile number, email address etc.
- Can add unlimited medicine or item here with stock information, supplier name, inventory info, barcode number etc.
- Supplier can save your supplier (Pharmaceuticals company) information here with their contact details
- If client back your medicine, then this option will help you to receive the product that will hit your inventory
- This option helps your sales person to sale your medicine from stock & receive the payment by cash or card
- You can add unlimited stuff with individual access level. Employee can use this software according to their access level.
- You can set or edit your medicine shop information, address, phone number here.
- Barcode integrated purchase and sales system is available here.

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Analysis

The pharmacy management system is built for the sake of ensuring effective and clear data saving and manipulating as well as neat work on the pharmacy business. This refers the pharmacy management system project minimize time highly and resource by which searching the medicine data you can get the data in quickest time. Some of the features minimized paper, manpower and related things. The other thing is for storing data in secure way.

3.1.0 Feasibility Study

Feasibility study determines whether that solution is feasible or achievable for the organization. There are three major areas of feasibility study. On studying the feasibility of the system, three major considerations are dealt with, to find whether the automation of the system is feasible.

- Technical feasibility
- Economic feasibility
- Operational feasibility

3.1.1 Technical Feasibility

To use the system users will require personal computer with windows operating system, Microsoft SQL Server database. To build the system engineers will require personal computer with windows operating system, Microsoft SQL Server database, Visual Studio 2015 and some other development tools. All of these are available technologies now a day. So, the project is technically feasible.

3.1.2 Economic Feasibility

We need not to pay extra money for any software (except windows operating system). Our hardware is enough to run our software. Here we need not any extra money as well.so we can say it is economically feasible

3.1.3 Operational Feasibility

Operational feasibility addresses concern about user acceptance, management support, and the requirements of entities and factors in the organizations external environment. The proposed system is designed from users who have minimal knowledge to operate computer. So the system is operationally feasible.

3.2.0 Requirements

Requirement means what the need of the project is. It may range from a high-level abstract statement of a service or of a system constraint to a detailed mathematical functional specification. It begins from communication and continues to modelling. There are four types of requirements. Requirements engineering innovation is applicable to the growth of all software-intensive techniques. The phrase 'software-intensive techniques' explains techniques that integrate components, application and human action.

3.2.1 Functional Requirements

In this system there will be two type of Users

- Admin

- Sales Man
- There will have some functions like Add Medicine Information, Edit Medicine Information, Purchase Medicine, Point of Sale (POS), Inventory, Adjustment and Reporting. Every function has one or more sub-functions
- Sub-functions of Add Medicine Information are
    - Add Company
    - Add Medicine Category
    - Add Medicine
    - Add Supplier
    - Add Tax Rate
    - Add Company Wise Supplier
- Sub-functions of Edit Medicine Information are
    - Edit Medicine Category
    - Edit Tax Rate
- Sub-functions of Report Management are
    - Sales Report
    - Purchase Report
    - Supplier Report
    - Customer Information Report
    - Company Information Report
    - Invoice List Information Report
    - Profit/Loss Calculation
- Every user has different access
    - Admin can access everywhere
    - Sales man can access Point of Sale (POS)

3.2.2 Non-Functional Requirements

- Check database connection
- Insure medicine conflict
- Check availability of medicine in inventory.
- Authenticate user.

Chapter:4

4.1 Use Case Diagram

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved.

Diagram

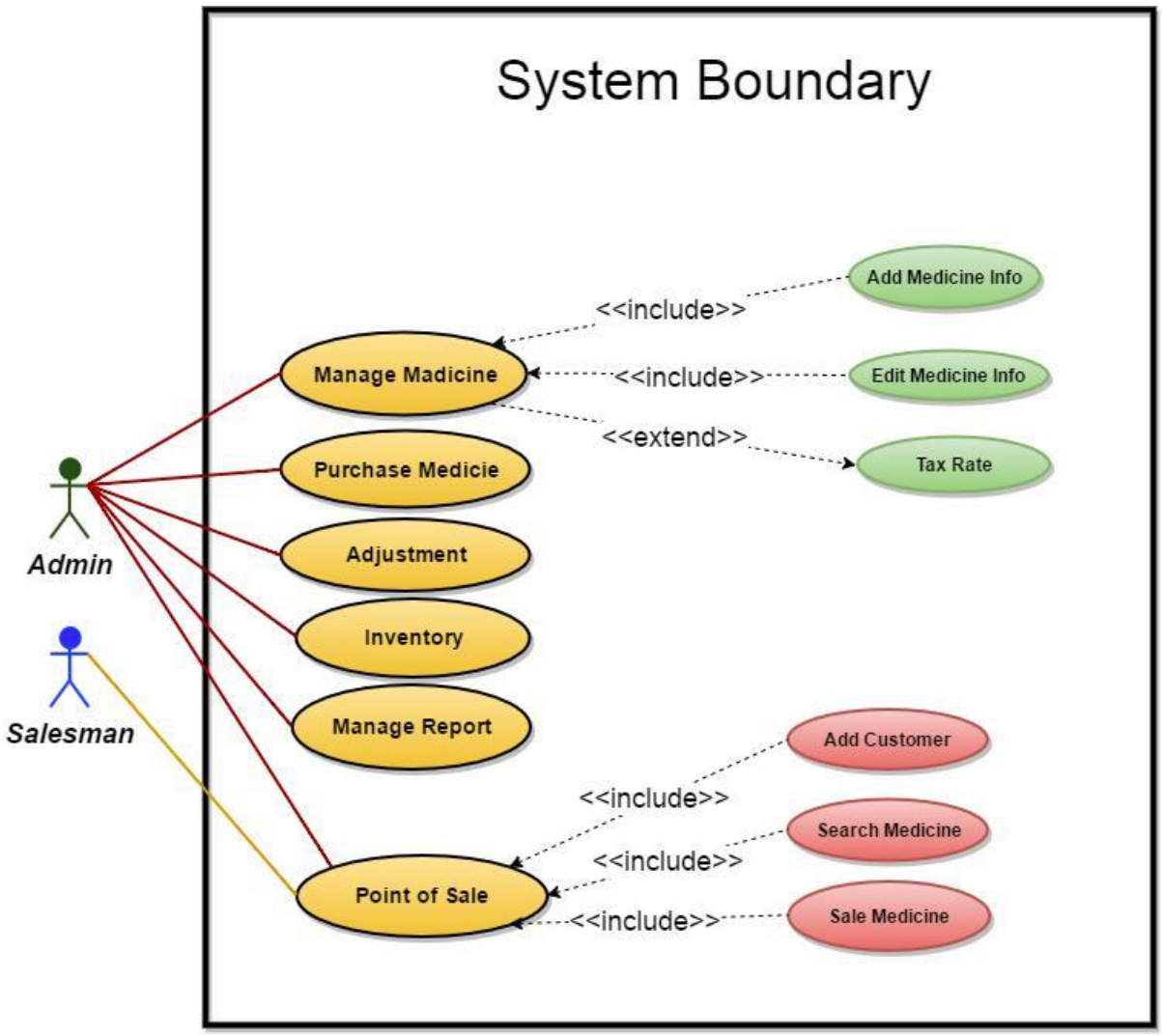

Figure: Use Case Diagram for Pharmacy Management System

4.2 Activity Diagram

Activity diagram is basically a flow chart to represent the flow form one activity to another activity. The activity can be described as an operation of the system.

Diagram

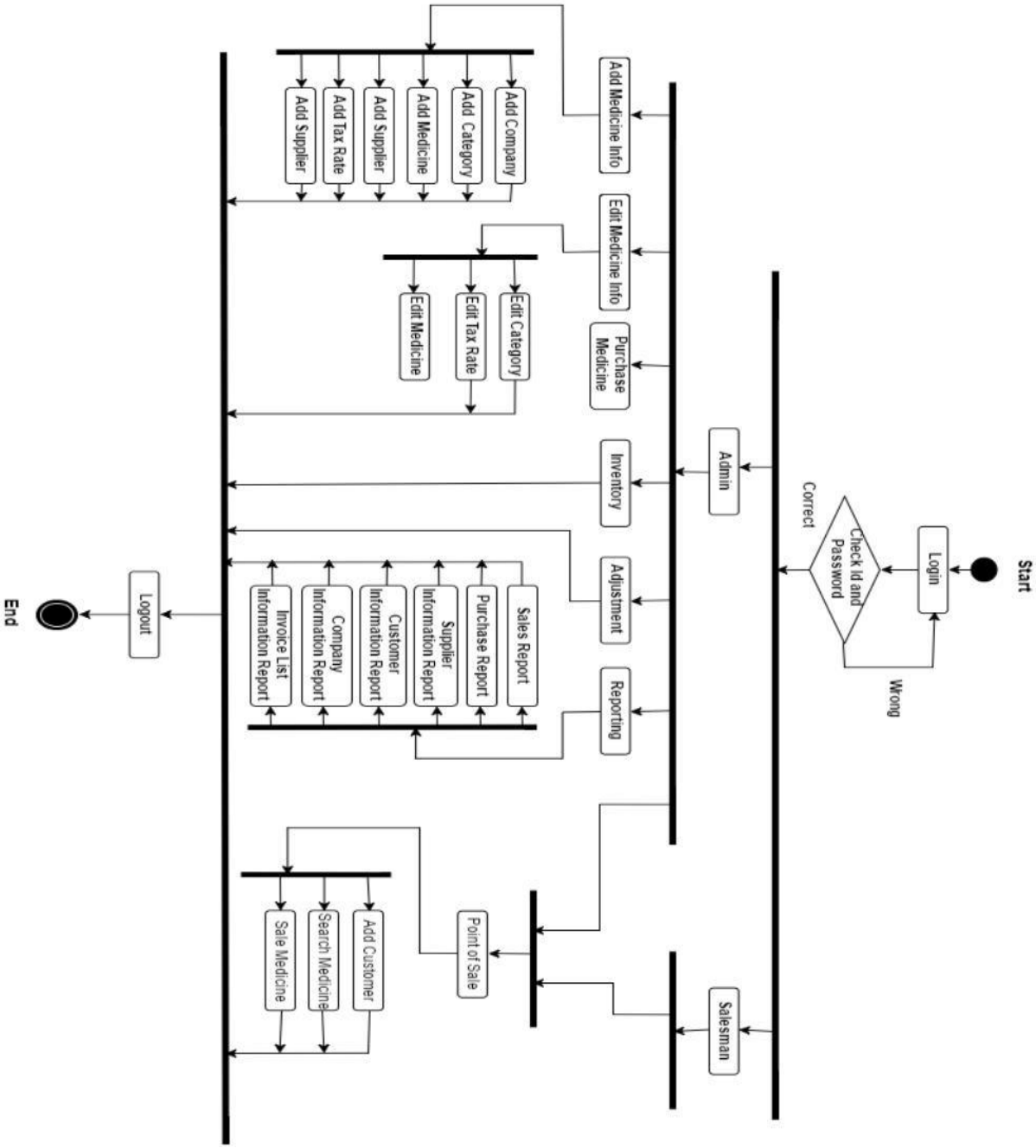

Figure: Activity Diagram for Pharmacy Management System

4.3 Sequence Diagram

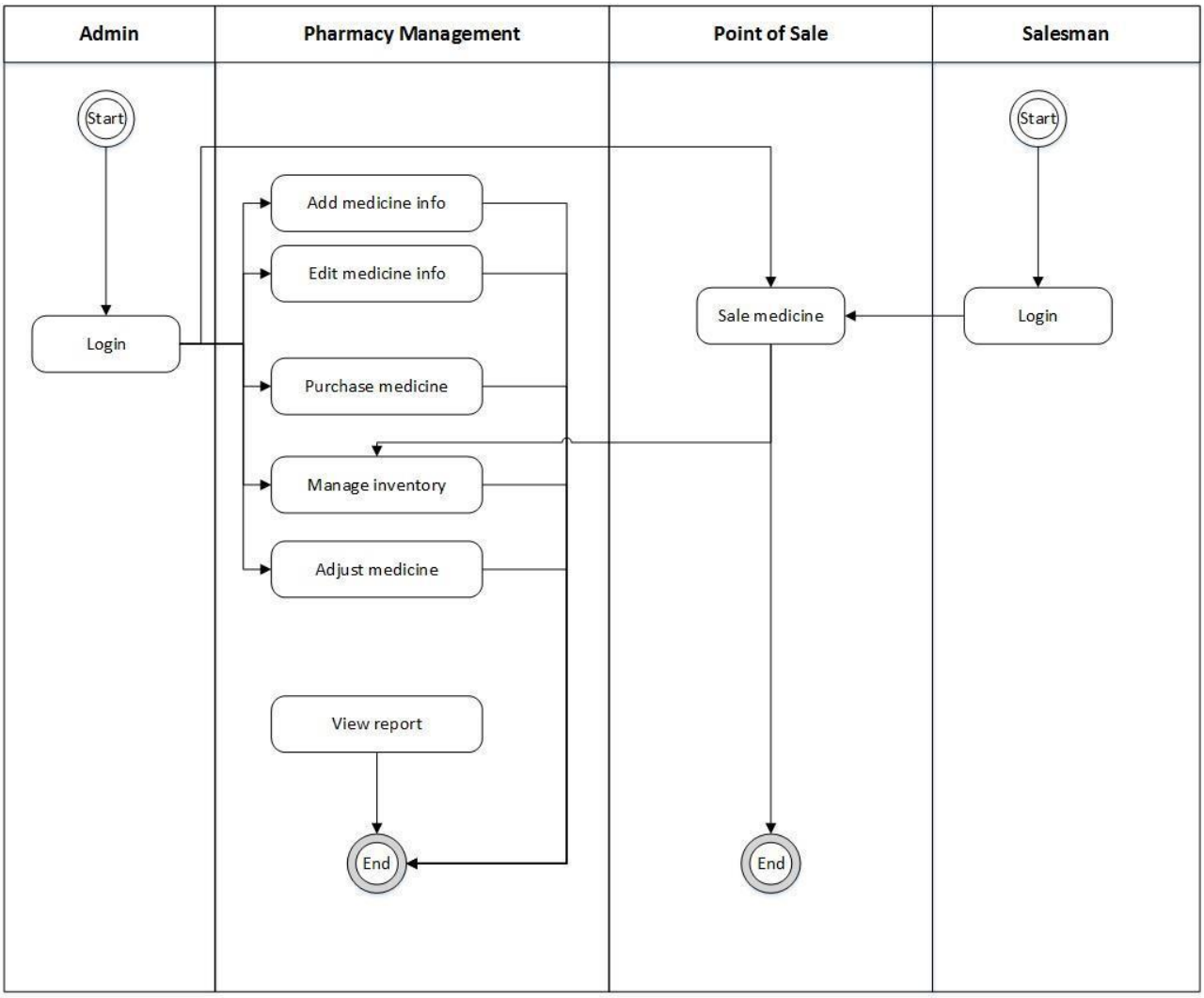

Figure: Sequence Diagram for Pharmacy Management System

4.4 Class Diagram

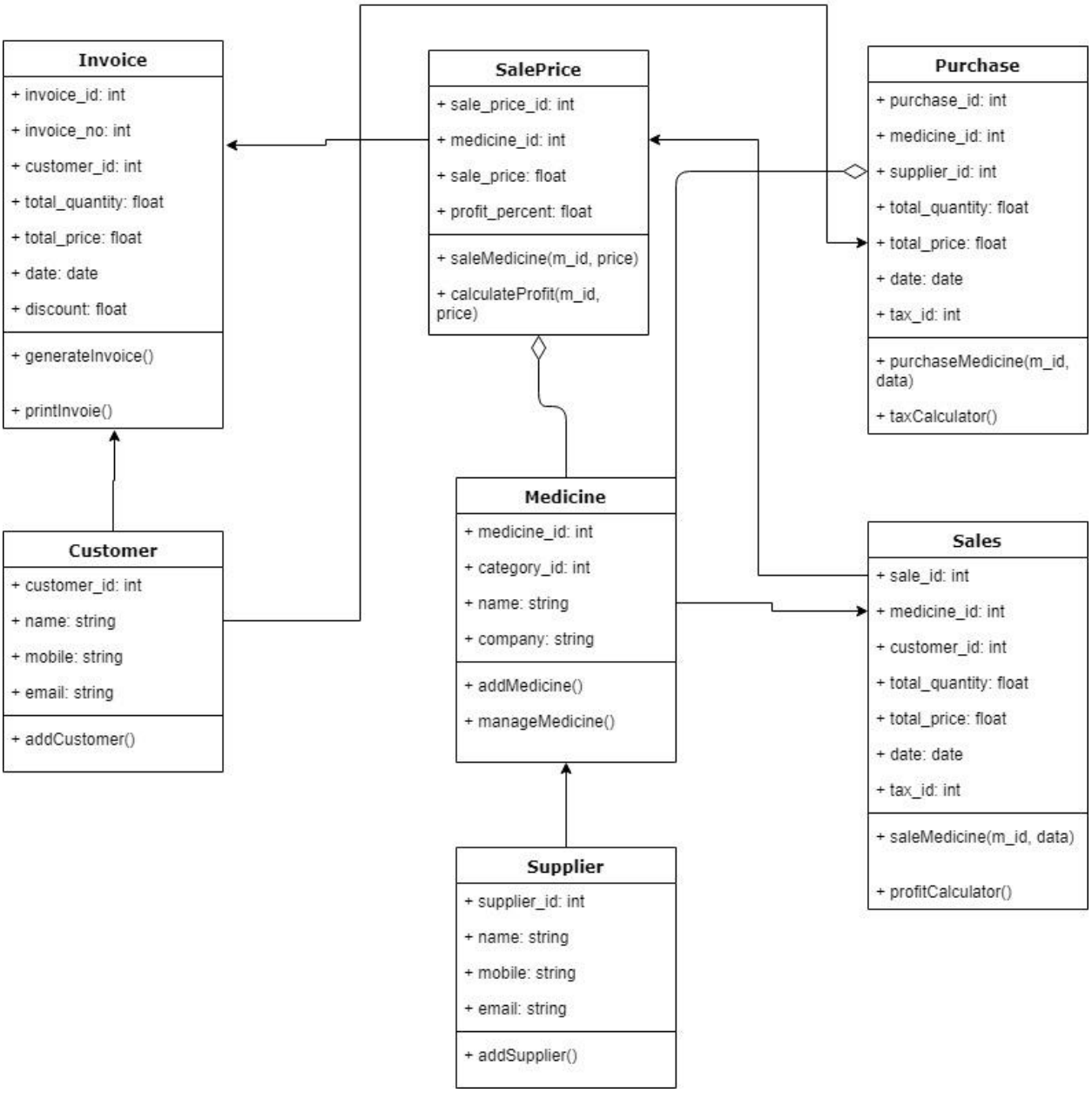

Figure: Class Diagram for Pharmacy Management System

4.5 Entity Relationship Diagram

An entity-relationship diagram (ERD) is a type of data modelling that shows a graphical representation of objects or concepts within an information system or organization and their relationship to one another.

Diagram

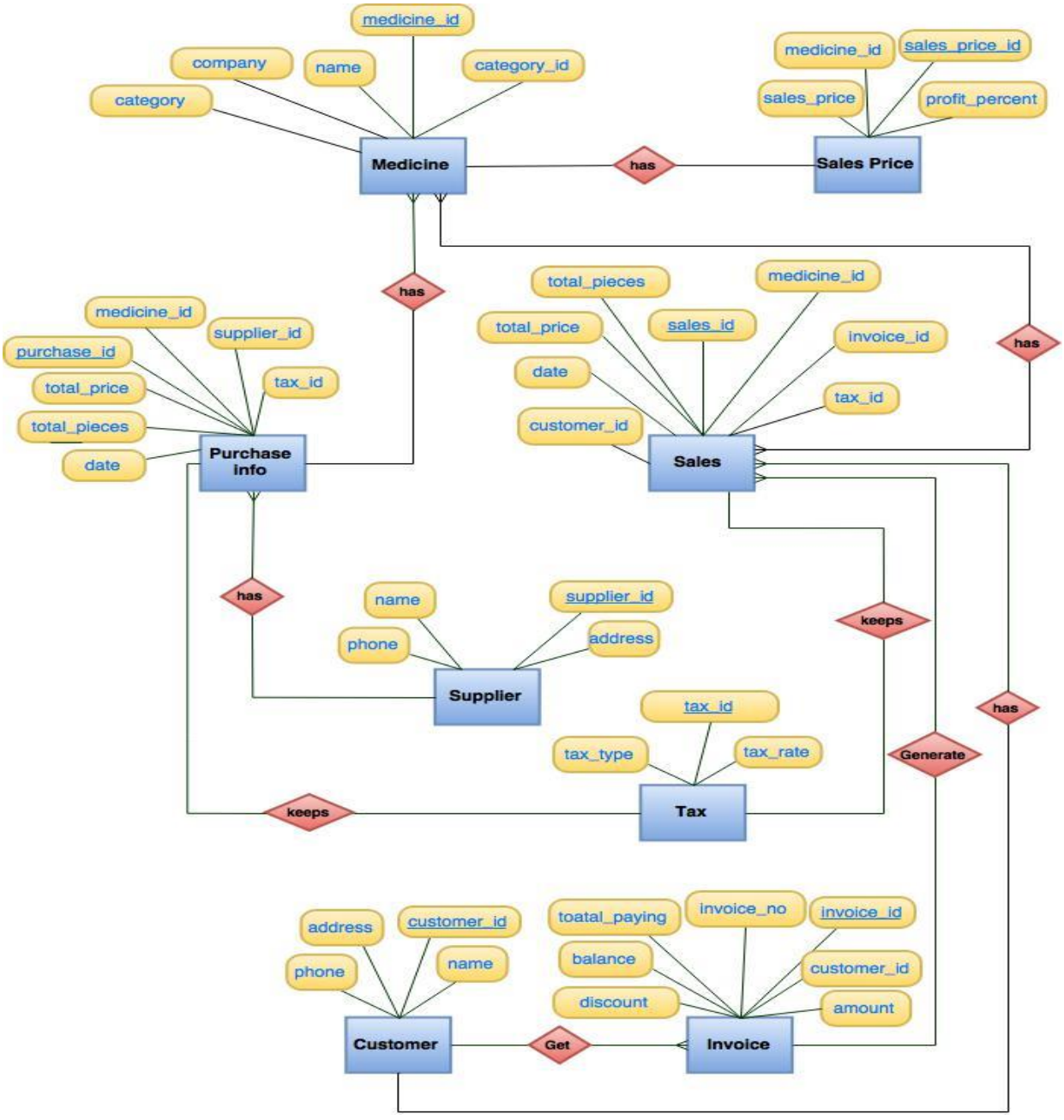

Figure: ERD for Pharmacy Management System

Chapter: 5

Conclusion

This is a positivity that pharmacy owner is getting smarter. They are willing replace the paper base management system and implement technology in their business to accelerate the growth of their business. Still there are some other pharmacy management system in the market. Unlike others. This one has a huge future scope which may lead to a management system that will manage drug's department of large hospital or the medicine whole seller's business. In addition, right now it is definite that, this system is more than enough to manage a stand-alone pharmacy