
DATABASE

Documentation of DataBase

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Complete Contents

Chapter 1:

(Introduction)

Topics:

1.1 Introduction

1.2 Problem Statement

1.3 Overall Description

1.3.1 Description

1.3.2 Technologies

1.4 Objectives

Introduction:

Pharmacy is the profession of a pharmacist, and pharmacology is a science in which one searches for drugs, their properties, the composition of drugs, and related matters. The Scientific Dictionary of Pharmacy is a health profession that connects health sciences with chemical sciences and is responsible for ensuring the safe use and effectiveness of pharmaceutical preparations. The word pharmacy is derived from the Greek φάρμακον (pharmakon), meaning "medicine" or "medicine".

The pharmacy profession includes many traditional roles such as formulating and dispensing medicines, and also includes providing more modern services related to health care, including clinical services, reviewing medicines, reviewing the safety and efficacy of medicines, and providing information about medicines. Thus, pharmacists are the experts in drug therapy and the primary health professionals who determine the optimal use of medication to provide positive health outcomes for patients.

The place in which the pharmacist practices his profession is the pharmacy, chemical store, or drug store. In the United States, Canada, and Arab countries, drugstores sell not only medicines, but also various commodities such as candy, cosmetics, and magazines, as well as soft drinks.
The word pharmacy is derived from the root of the word pharmacy. In addition to the responsibilities of a pharmacist, offer general medical advice and a range of services that are currently performed by only dedicated practitioners, such as surgery and midwifery (the art of obstetrics). Pharmacy often operates through retail stores, in addition to drug ingredients, tobacco and medical patents. Herbal remedies are also used.
With regard to the achievements of pharmacy in the field of chemical and herbal components, it is possible to consider the work of pharmacy as an introduction to chemical sciences and pharmaceutical sciences, before formulating scientific curricula.
The project is of great importance to those who deal with the pharmacy.
The manager benefits from the powers that the system gives to users, which provides him with security and

benefits from reports on products and sales, which saves him time and provides him with the need for a permanent presence in the pharmacy and provides that data is not lost by taking a backup copy of the data and retrieving it, which provides him with reassurance on the data.

The pharmacy database is a comprehensive collection of information about medications, including their uses, dosages, side effects, and interactions.

It is used by healthcare professionals to help them make informed decisions about the medications they prescribe.

The database includes information on both prescription and over-the-counter medications, as well as herbal and dietary supplements. It also includes information on drug interactions and potential drug-drug interactions. The database is updated regularly to ensure accuracy and to keep up with the latest developments in the field of pharmacy.

Problem Statement:

- Loss of communication and interdependence between the departments of pharmacies and drug stores.

  Pharmacies and drug stores face a problem of communication and interdependence between their various departments and departments.

  Where each of them works in isolation, and this creates a state of confusion and reduces the efficiency of making appropriate decisions within the pharmacy.

- The lack of control in the management of pharmacies on the procurement cycle

  One of the most prominent problems is the lack of control over the entire procurement cycle, such as "supplier agreements and balance limits" and the lack of knowledge of the "minimum limit, reorder limit, and upper limit."

  This, of course, prevents pharmacies and drug stores from making automated orders based on previously known equations and variables at the level of internal warehouses or at the point-of-sale level.

- The lack of an effective mechanism to know the expiration date

Pharmacies and drug stores suffer from the lack of an effective and strong mechanism to determine or know the approaching expiry date of medicines.
Which prevents warehouse and pharmacies officials from taking the necessary measures regarding these medicines that are close to expiring.

- There is no mechanism to follow up on transfers issued from the warehouse to the pharmacy

Failure to follow up on transfers issued from the warehouse to pharmacies, receipt at the pharmacy, and follow-up of these related items with comparison reports is a problem facing many pharmacies and drugstores.
As it puts officials in confusion about the available items and the reliable balance, which prevents them from taking the appropriate decision about the items required to purchase the deficiencies from them or stopping purchase requests for the types of medicines that are widely available in pharmacies.

- Repeat definition of classes

Repeating the definition of items is a problem that occurs within pharmacies and drug stores, because it

is not possible to have multiple shipments, batches, and suppliers for the same item.

- The lack of a mechanism for making promotions in multiple forms Promotional offers attract customers to pharmacies and drug stores.

  The lack of an effective mechanism for making promotions in multiple forms is one of the biggest problems facing pharmacies and drug stores at the present time.

- Inventory problems

  Pharmacies and inventory stores face major problems in inventory procedures and inventory settlement due to lack of careful follow-up.

- Accumulation of balances for items close to expiration

  The problem of accumulating balances for items close to expiration occurs inside pharmacies and drug stores because of the lack of a point-of-sale procedure that helps the pharmacist to sell in a first-in, first-out manner.

  This also leads to the non-prohibition of selling expired items, which is a disaster by all accounts.

- Inability to obtain inventory cost at any time

  One of the most prominent problems facing pharmacies and drug stores is the inability to obtain the cost of the inventory except by the end of the period and the inventory.

  This is due to the lack of correlation between the inventory in warehouses and points of sale with the general accounts of the company, which prompts the customer to work in the periodic inventory method, and it is not possible to know the cost of the goods sold until after the inventory is made at the end of the period and then the inventory is settled.

Overall Description:

Description:

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.
Pharmacy management system is useful to maintain correct database by providing an option to update the drugs in stock. This is pharmacy management system; it is used to manage most pharmacy related activities in the pharmacy. Pharmacy management system is a management system that is designed to improve accuracy and to enhance safety and efficiency in the pharmaceutical store. This program can be used in any pharmaceutical shops having a database to maintain. It is a computer-based system which helps the Pharmacist to improve inventory management, cost, medical safety etc. The software used can generate

reports, as per the user's requirements. Using this pharmacy management system

user is also able to generate report within a specified period. The system allows the user to enter a manufacturing and expiry date for a particular productor drug during opening stock and sales transaction. The software can print invoices, bills, receipts etc. It can also maintain the record of supplies sent in by the supplier. The system will also give report showing the list of products expiries after a specified date before the product eventually expires. The system services and goals are established by consultation with system user. It also involves manual entry upon arrival of new batches of drugs and upon drug movement out of the pharmacy for a certain period. Pharmacy management system is being build. Pharmacy management system is robust, integrated technology. every month, the pharmacist may want to generate report for the movement of drugs in and out of the pharmacy, getting information about the drugs e.g., expiry date, date purchased, number of drug type left, location of a drug in the pharmacy. Pharmacy management system deals with the maintenance of drugs and consumables in the pharmacy unit. This pharmacy management system is user friendly.

Technologies:

In terms of the technological stack, the software developers you'll hire will require knowledge of several programming languages.

Basically, they are Angular, Java, Swift, Kotlin, PHP, CSS3, and HTML5 (for front-end) and Python, Node.JS, and Laravel (for back-end). The exact set of coding knowledge depends heavily on the customized solution you've chosen, though.

Moreover, there are some structural elements of medication management software that require special skills from your developers.

- ✓ **Database**. This technology is needed to store the various information flows in one place. Mostly, developers refer to MySQL and PostgreSQL. For the implementation details, check the section on the database system development life cycle in our blog. Here, you can get the plan to help you start the negotiation process with your development team.

- ✓ **Cloud**. E-prescription and overall operation of the pharmacy management work the best in the specially designed hosted program. Azure, Google Cloud, and AWS are the most trusted technologies to build such a platform. If you're about to transfer your existing legacy infrastructure to the cloud computing environment, check the guide on 7 key cloud migration risks in our blog.

- ✓ **Integrated Voice Reporting (IVR) systems**. This technology is useful for processing telephone conversations. The core functionality includes text-to-speech conversion, updating patient status automatically, and giving answers during calls.

- ✓ **Analytics**. For analysing the data and generating reports, Google Analytics and Amazon EMR work the best.

- ✓ **Payment processing**. Once integrated, services like PayPal and Stripe enable online ordering and contactless delivery of your pharmaceutical products. Recently, we've published an overview on how to introduce a secure payment gateway in your software. Check this blog post to get more information on SSL for secure connections, PCI certificates, and 3D secure authentication. This article will help you comprehend the upcoming challenges and special skills needed from your development team.

- ✓ **Blockchain**. Among the recent innovations in the pharmaceutical industry, we encourage you to consider blockchain functionality in medical management software. The technology will provide an extra security layer, transparency, traceability, effectiveness, and automation to the core functionality of pharmacy management software for pharmacy technicians. More information on how to outperform your competitors with this know-how you can find in our blog post on blockchain benefits for the pharmaceutical industry.

Objectives:

- Improve patient safety by providing accurate and up-to-date information about medications.
- Increase efficiency in the pharmacy by streamlining processes and reducing errors.
- Enhance patient care by providing access to medication history and drug interactions.
- Increase patient satisfaction by providing easy access to medication information.
- Improve communication between pharmacists and other healthcare professionals.
- Increase accuracy of medication orders and reduce prescription errors.
- Improve patient adherence to medication regimens.
- Enhance the ability to track and monitor medication usage.
- Improve the accuracy of billing and reimbursement for medications.
- Increase the ability to identify and prevent medication errors.

Chapter 2:

(System Analysis)

Topics:

2.1 Open and End question

2.2 Process about the system

2.3 Requirement (F and Non-F)

2.4 Context Diagram

2.5 Data Flow Diagram

2.6 USE CASE

Open and End question:

Open question:

- ✓ What were the main reasons you chose our product/service?
- ✓ How did you feel about our customer service?
- ✓ What would make you use our product/service again?
- ✓ What is the most important feature of our product/service for you?
- ✓ Why are you looking for products/service today?
- ✓ How would you describe your experience with us?
- ✓ How can we help you find what you are looking for today?
- ✓ What do you like best about our product?
- ✓ What would you like to see improved on this application?
- ✓ Please describe your experience on our mobile checkout page.
- ✓ How would this new feature fit into how you use our application?
- ✓ How did you hear about brand X?
- ✓ What's the biggest obstacle stopping you from
- ✓ reaching your desired outcome?
- ✓ How did this product change how you do your work?
- ✓ What happened in the past when you used this product?

Close question:

- ✓ Would you recommend our product/service?
- ✓ Have you experienced good customer service?
- ✓ Would you consider using our product/service again?
- ✓ Did you like our product/service?
- ✓ Are you interested in buying products/service today?
- ✓ Are you happy with your experience with us?
- ✓ Did you find what you were looking for today?
- ✓ Is there any branch of the pharmacy in another place?
- ✓ Are all services available 24 hours?
- ✓ Is delivery available to a place in the governorate or city only?
- ✓ Is there a delivery service?
- ✓ Is there a place to store medicines and medical supplies next to the pharmacy?

Process about the system:

- **Web-based ordering systems:**
  Often provided by drug wholesalers, these systems allow pharmacists to order medications from a company.
- **Automatic dispensing systems:**
  These are machines that automatically count and dispense pills for a pharmacist. Some complex systems even print the label and apply it to the bottle.
- **Stock organization and counting:**
  Medication counts are done regularly, but even that can't help in the situation where drug amounts are counted incorrectly or not updated in the system on time. A PMS can keep a detailed log of your inventory that can be easily filtered by the required storage conditions and expiration date, allowing you to prevent dangerous errors.
- **Medication ordering:**
  A PMS uses reorder points or par levels set up by the pharmacy to generate automatic orders. The system calculates how many items are needed to raise the stock level and adds this quantity to the order. The orders are then sent via electronic data interchange.
- **Reporting:**
  A PMS generates reports allowing pharmacists to easily determine the better performing wholesalers and vendors and understand what factors come into play when ordering medications.

- **E-prescribing:**
  The process of e-prescribing involves the electronic creation and transmission of a prescription between a prescriber and a pharmacy. A doctor creates a medication order and sends it to a patient's pharmacy. The pharmacy can then communicate that the order was received and filled, and even notify if the patient hasn't picked up their medication.

- **Collecting patient information:**
  A PMS works like the way a CRM does, gathering information about the patient from different sources, including the current medication list, medical history.

- **Developing a patient care plan:**
  Here, medication adherence tools in the form of notifications and calendars can be used. A physician and a pharmacist collaborate on the medication therapy plan and then follow the results.

- **Implementing and evaluating medication therapy**:
  Once again, pharmacists and physicians assess any medication problems and side effects that arise during therapy and modify care strategies.

- **processing different payment types and returns:**
  support for credit and debit cards, FSA/HSA cards, Apple Pay, online payment requests, and fund returns processing.

Requirement:

Functional:

- Capability to define kind of pharmacy in terms of referring (outpatient, hospitalization, outpatient, and hospitalization).
- Capability to define pharmacy, storage and stoke in unlimited number.
- Capability to specify kind of pharmacy in term of referring, special location, with possibility of setting calculation of all items in insurance at time of registering prescription.
- Capability to define different storage (such as medicinal storage, consumed goods.
- Capability to register expiration date, way of keeping good and place of keeping good.
- Capability to warn at the time of ending good' expiration date.
- Capability to set medicinal stroke of ward regarding expiration date and number of drugs.

- Capability to enter and calculate drug and facilities consumed by patients in every shift and specify stoke status of drug and facilities of each ward.

- Capability to set maximum inventory, order and sale threshold for all pharmacies and stores in exchange for each good.

- Capability to momently display inventory of each good in all pharmacies and including selling and buying price, expiration date and existence or non-existence in shelf.

- Capability to display consumed inventory of each good in all pharmacies (zero point).

- Capability to warn about minimum inventory, order and sale threshold for all pharmacies and stores at time of registering documents and prescriptions.

- Capability to request for transmission among stores.

- Capability to electrically refer request of pharmacy to medicinal storage after confirming by technical manager of pharmacy.

- Capability to compare storage and pharmacy's inventory with minimum stoke for each drug and warn in cases that inventory is of minimum stoke.

- Capability to state lack of drug inventory in pharmacy and medicinal storage at time of stating request of ward for drug.
- Capability to register returned drug.
- Capability to code drug (e.g., NDC).
- Capability to define different varieties of drug.
- Capability to define variety of default texts to register way of drug consumption (such as oral, injection, inhaler).
- Capability to define heads of consuming drug in pregnancy period (A, B, C, D, X).
- Capability to define possible status of requesting drug' importance (little, stat or maintenance).
- Capability to define patient' gender to register information of prescription (female, male).
- Capability to define varieties of medicinal categorization (such as antibiotics, narcotics).
- Capability to define varieties of categorization for items (such as drug, consumed facilities, cosmetics).
- Capability defines varieties of packaging with its coefficient to register number of goods.

- Capability to register and edit all needed medicinal and non-medicinal items of hospital.
- Capability to have medicinal and facilities entry alphabetically.
- Capability to filter entry of medicinal items based on search parameters.
- Capability to print entry of medicinal and non-medicinal items.
- Capability to register other additional information of each drug categorically to needed usage.
- Capability to register medicinal side effects of drug.
- Management of drug and facilities' entry through barcode.
- Managing filling prescription through barcode.
- Capability to calculate drug dose based on medicinal history and physiological parameter of patient and ability to change units for consumption.
- Capability to recognize and warn about non-conformity of prescribed drug with diagnosing the disease and physiology of patient.

- Capability to make direct connection with computerized provider order entry.
- Capability to diagnose and warn about interaction of drug-drug, drug-food, drug-allergy, drug-results of test.
- Capability to warn about riskiness of prescribed drug for patient.
- Access to scientific sources such as review database and medical studies.
- Capability to electronically receive request and send answers of medicinal counseling of clinical wards.
- Capability to support system of managing confidential and anonymous danger (such as giving report of error).
- Capability to electronically receive and send list of requested drugs by clinical wards.
- Capability to determine whether a drug is narcotic or not.
- Capability to define varieties of physician' specialty.
- Capability to define title of person writing prescription.
- Capability to define authorized individuals who can sign for issuing permit of delivering drug.

- Capability to define verities of permits of delivering drug.

- Capability to define name of companies of contracting party to register invoice of drug.

- Capability to register invoices of buying and producer and manufacturer companies and send report to accounting unit.

- Capability to define prescription rules for delivering or not delivering drug including prescribing by special physician, prescribing just for special patients, rationing number, and time interval between two prescriptions (is important for outpatient patients.

- Capability to warn and accurately examine the prescription rules for delivering or not delivering drug including prescribing by special physician, prescribing just for special patients, rationing number, and time interval between two prescriptions (is important for outpatient patients).

- Capability to register characteristics of drug producers including characteristics of company, list of produced drugs, dose, shape, and buying price of drug.

- Capability to define drug package to accelerate selecting number of drugs in document and prescription in unlimited number with capability to give barcode.

- Capability to define verities of working group to separate observing medicinal items (observing a few drugs for some users to use in case of having access permit.

- Capability to control name and surname of patient, validity date of health insurance card, name and surname of physician and medical counsel number at time of writing prescription.

- Capability to define varieties of titles of technical right (such as filling prescription on day and at night).

- Capability to set calculating technical rights of outpatients or hospitalization in franchise percentage of each insurance.

- Capability defines contracting party with registering franchise percentage of Outpatient and hospitalization and determining insurance ceiling to warn at time of registering patient' prescription.

- Capability to determine extent of insurance ceiling in exchange of each specialty to warn at time of registering patient' prescription.

- Capability to edit information of insurances of contracting party.

- Capability to define unit price of accepted by insurance based on outpatient prescription, hospitalization

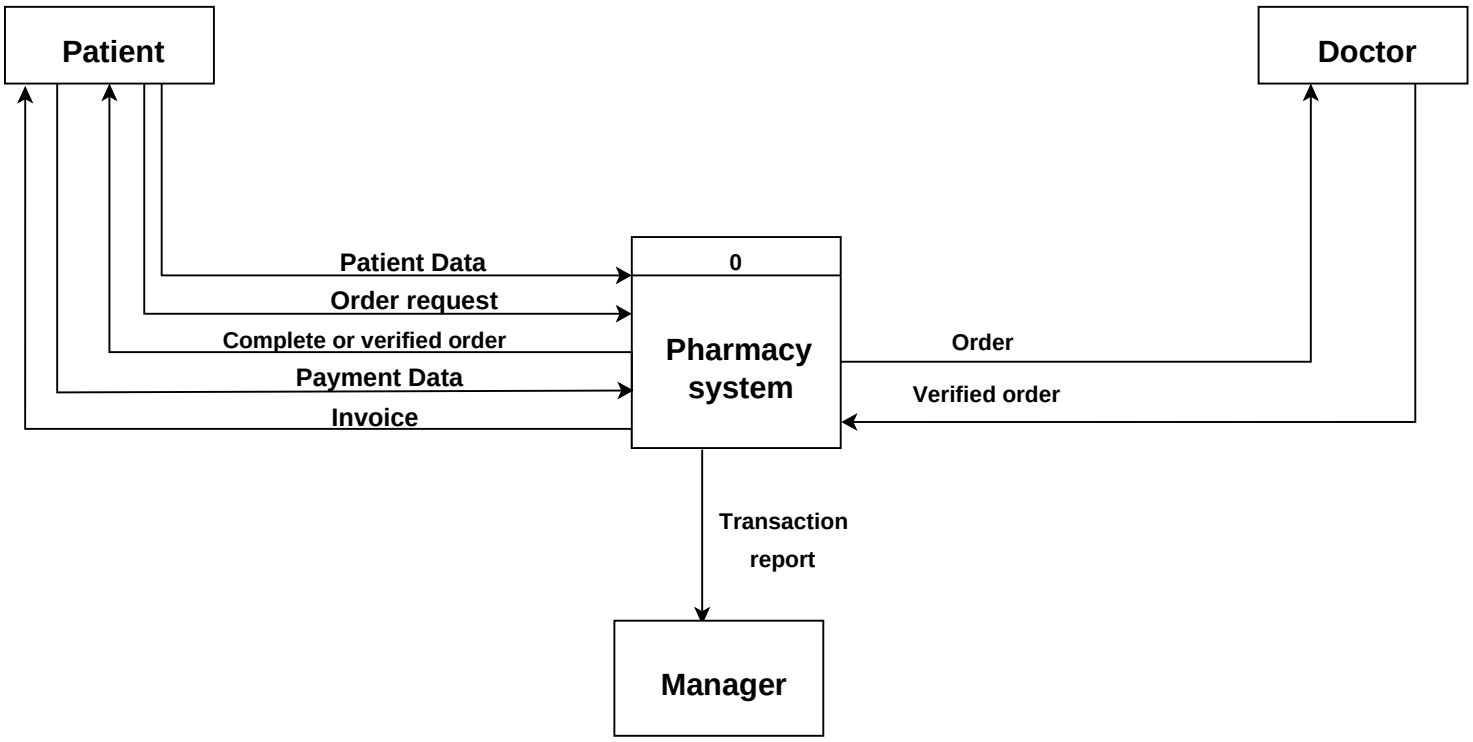
prescription and prescription of special place such as operation room.

Non-Functional:

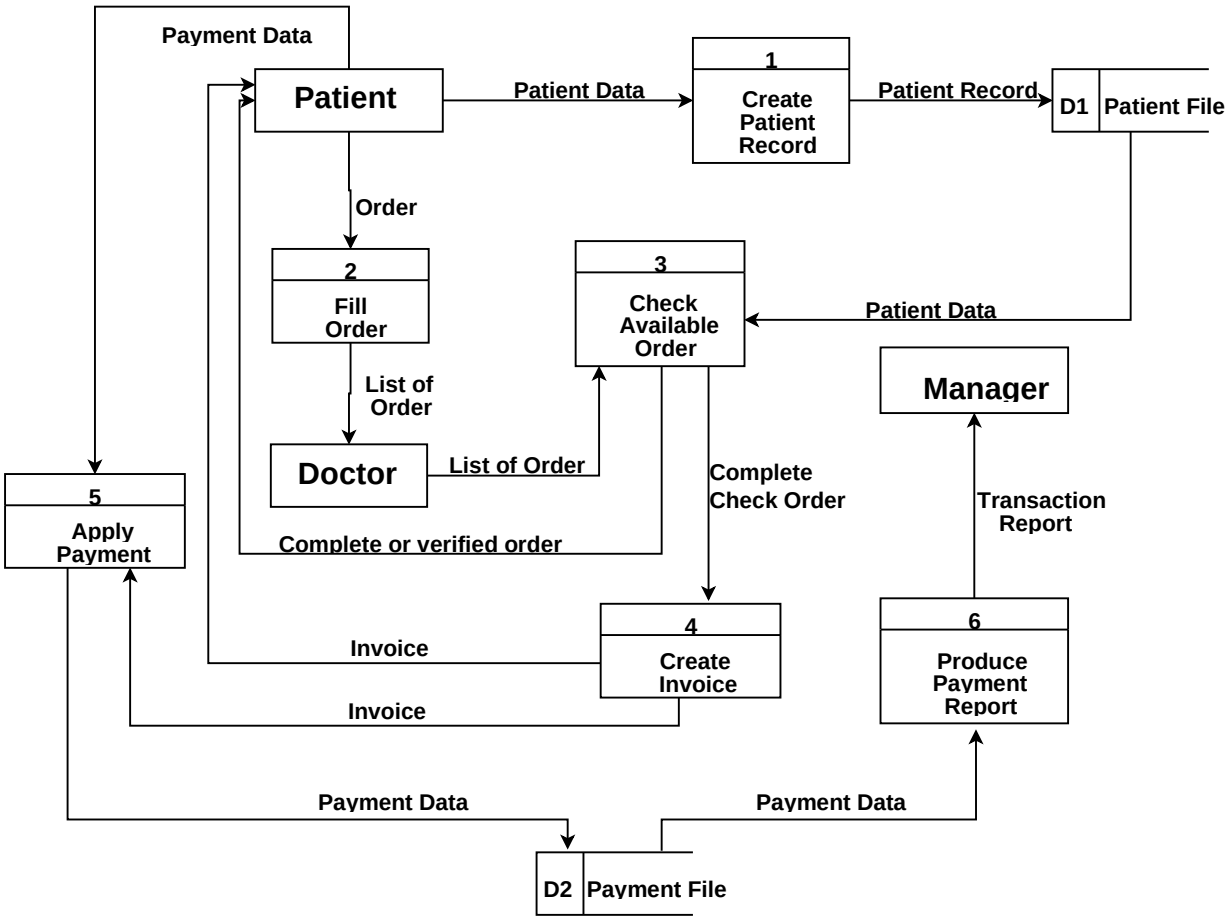
Pharmacy Management system can operate in the following characteristics. Any familiar in using windows operation can operate the system since it has user friendly and easy to use user interface.

Reliability: The pharmacy system is available based on the user's needs, can work properly, and do transactions efficiently including safe management of the pharmacy. The pharmacy system is password protected to change things on the system. Here the pharmacist Manager controls the system by login to the pharmacy system. Any user cannot use the system without being registered by the Administrator and all result data is protected and controlled by the Administrator.

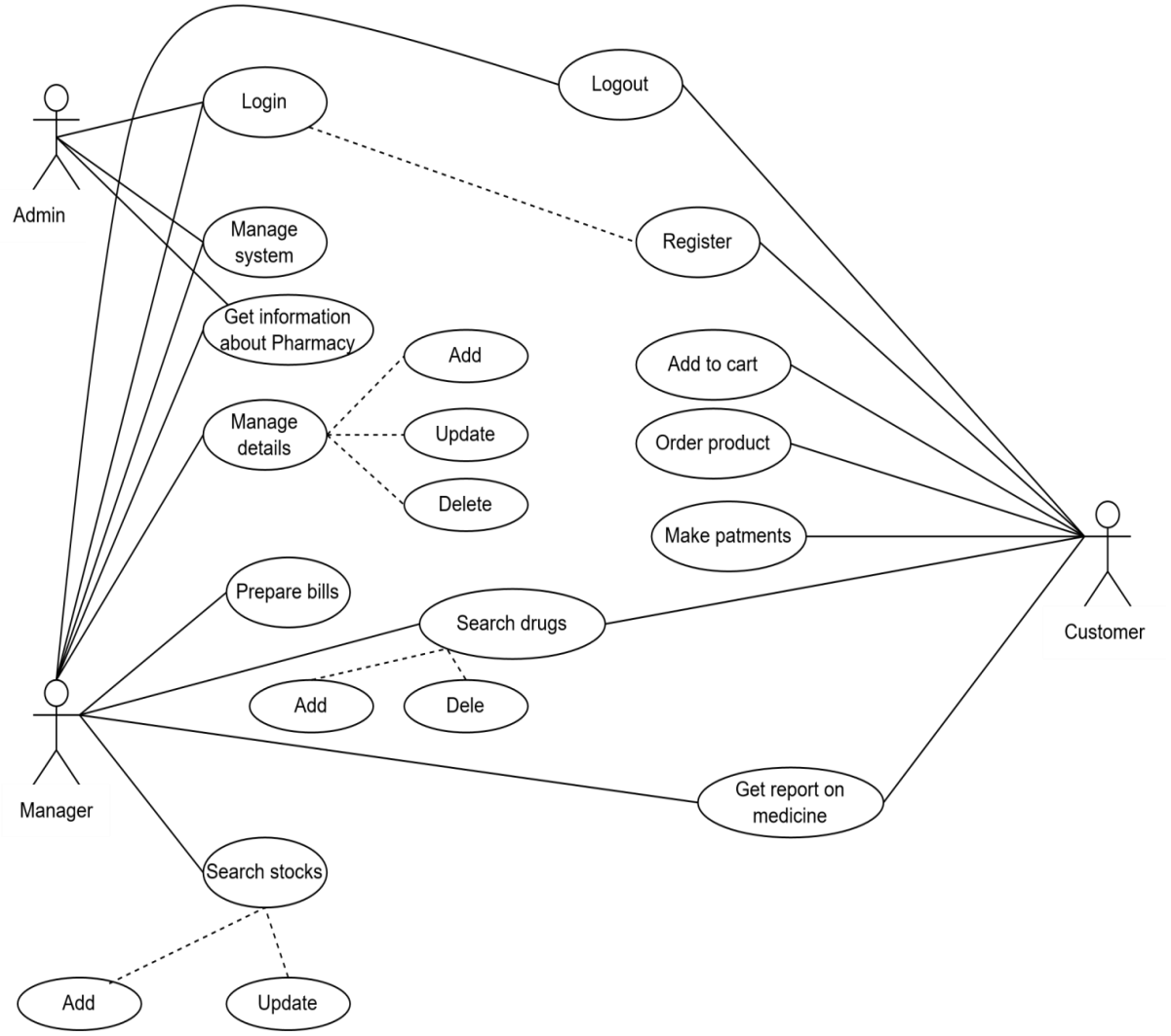
Context diagram:



Data flow Diagram:



USE CASE:


Admin
Login
Logout
Manage system
Register
Get information about Pharmacy
Add
Add to cart
Manage details
Update
Order product
Delete
Make patments
Customer
Prepare bills
Search drugs
Add
Dele
Manager
Get report on medicine
Search stocks
Add
Update

Chapter 3:

(System Design)

Topics:

3.1 Items

3.2 Action

3.3 Class Diagram

3.4 User Diagram

3.5 ERD

3.6 Schema

Items:

- Doctor:
  - Doc _ID
  - Doc _Name
  - Phone
  - Address
  - Gender
  - Birth _day
  - SSN
  - E _mail
  - Salary
  - D_S_Work

- Patient:
  - P_ID
  - Name
  - Gender
  - Address
  - Phone
  - Birth _day
  - SSN
  - E _mail

- Drug:
  - Drug _ID
  - Drug_Name
  - Company_ID
  - Type_ID
  - Mfg _Date
  - Exp _Date
  - Quantity
  - Price

- Description:
  - Desc_ID
  - Drug_Name
  - Sale _Time
  - Doc _ID
  - T_Price
  - Num_pieces
  - P_ID

- Employee:
  - E_ID
  - Address
  - Gender

- Name
- Salary
- Phone
- Birth _day
- SSN
- E _mail
- D_S_Work

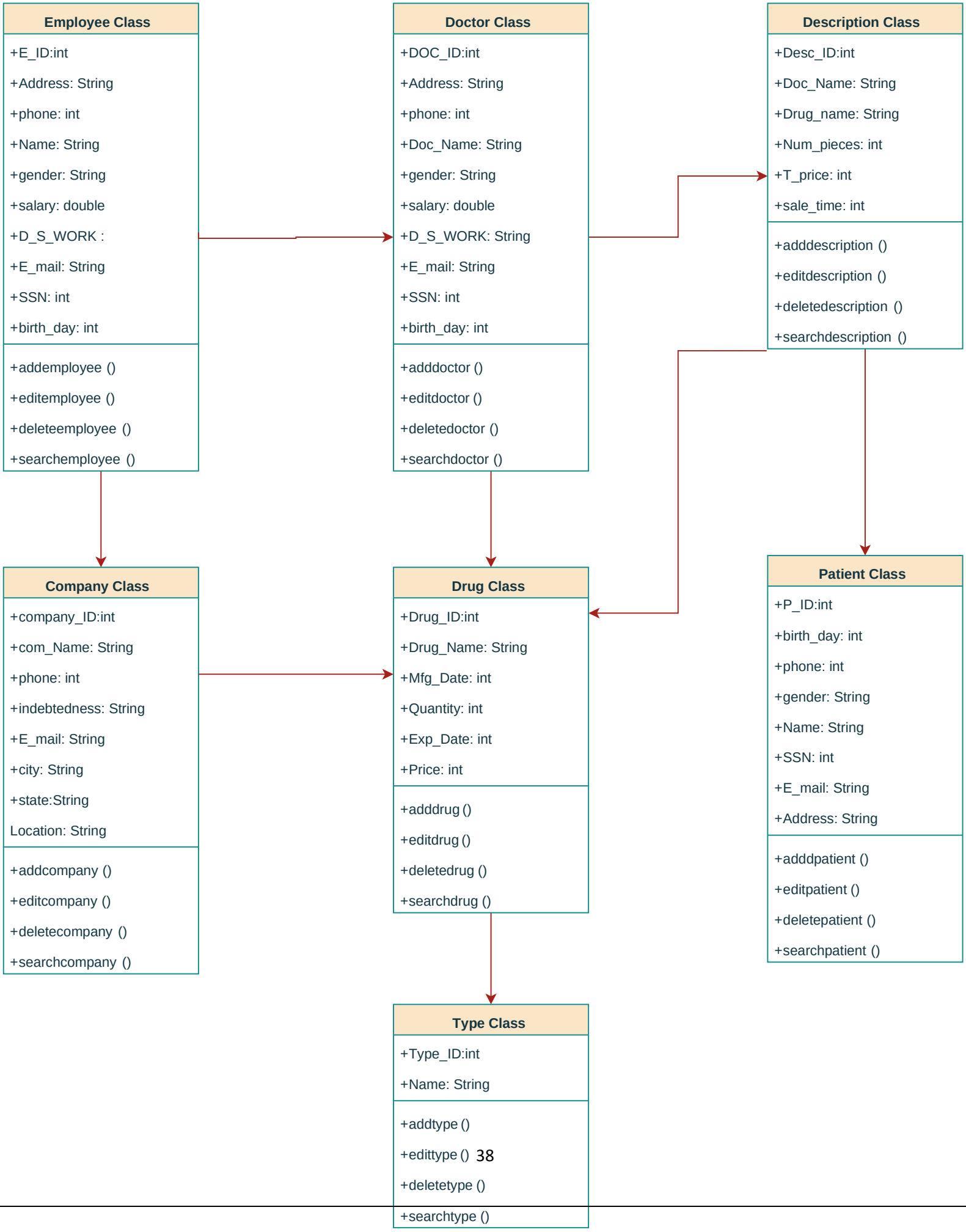
- Company:
  - Com _ID
  - Com _Name
  - City
  - State
  - Location
  - Price
  - Phone
  - Indebtedness
  - E_mail

- Type:
  - Type _ID
  - Name

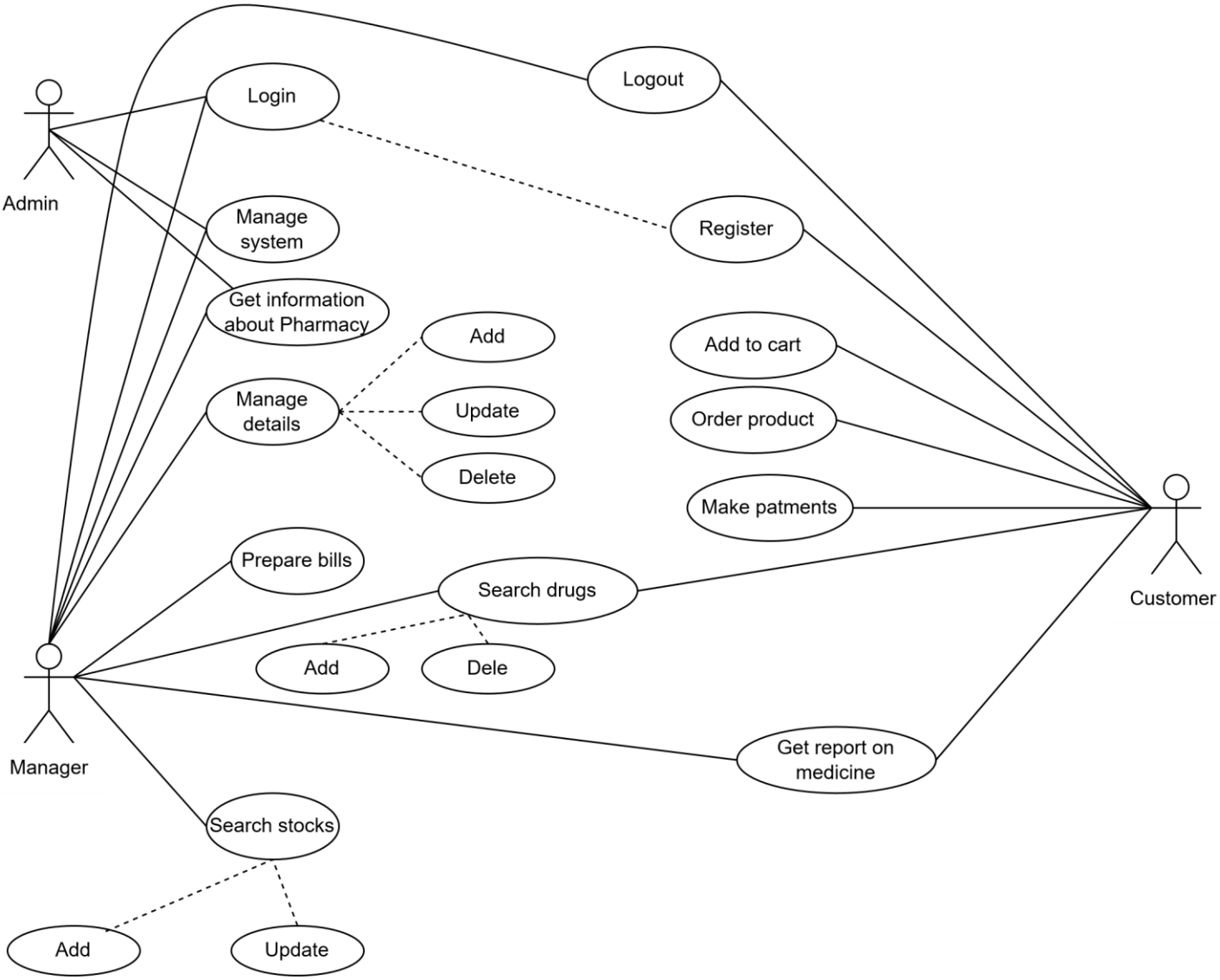
Action:

- The doctor sells many drugs, but drugs sold by one doctor.
- The doctor manages many employees, but employee managed by one doctor
- The doctor spends many descriptions, but description spent by one doctor
- The patient takes many descriptions and descriptions token by many patients
- The employee treats with many companies and company treated by many employees
- The company provides many drugs, but drug provided by many company
- The drug is type but type was many drugs
- The description contains many drugs and drug contained by many description

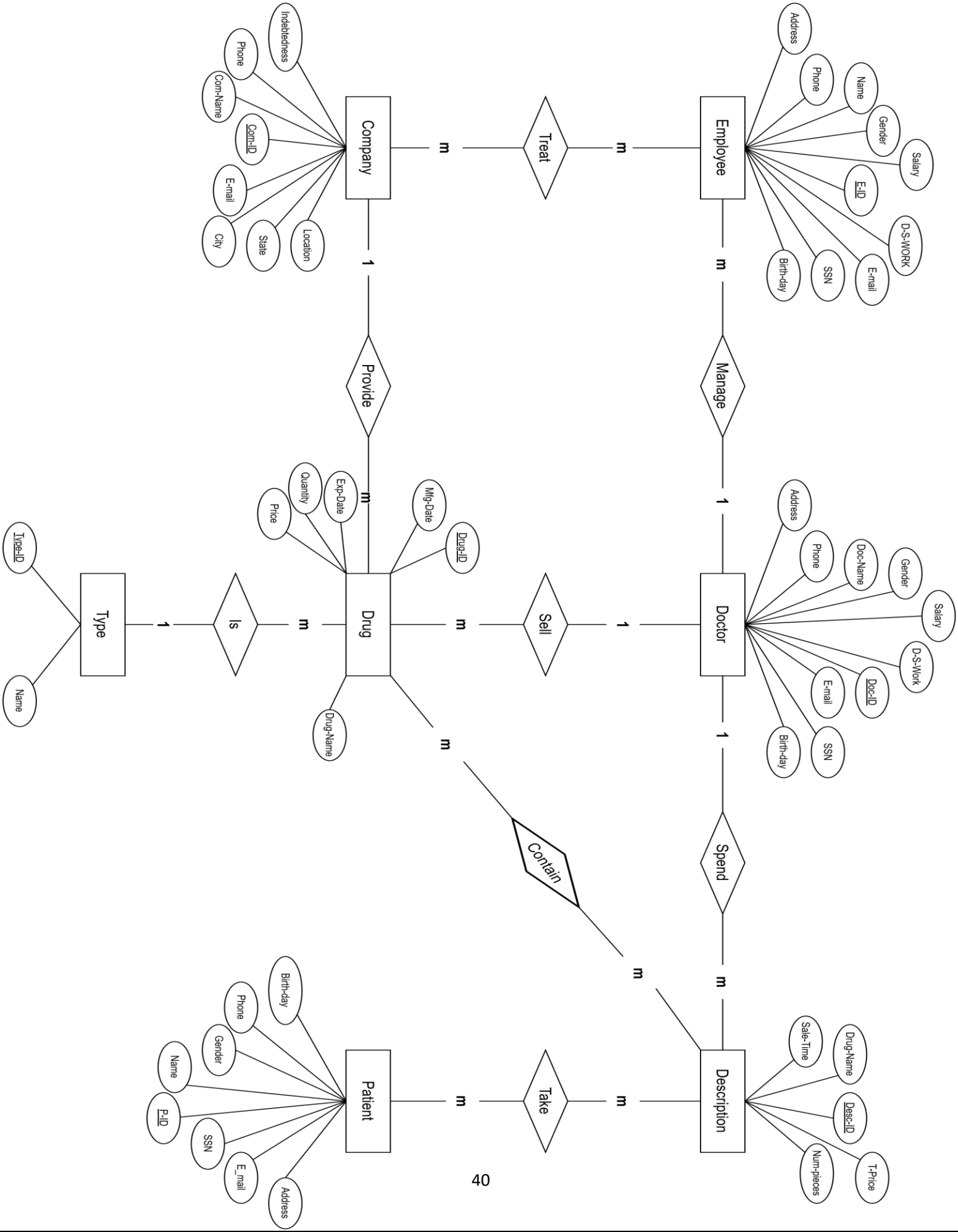
Class Diagram:



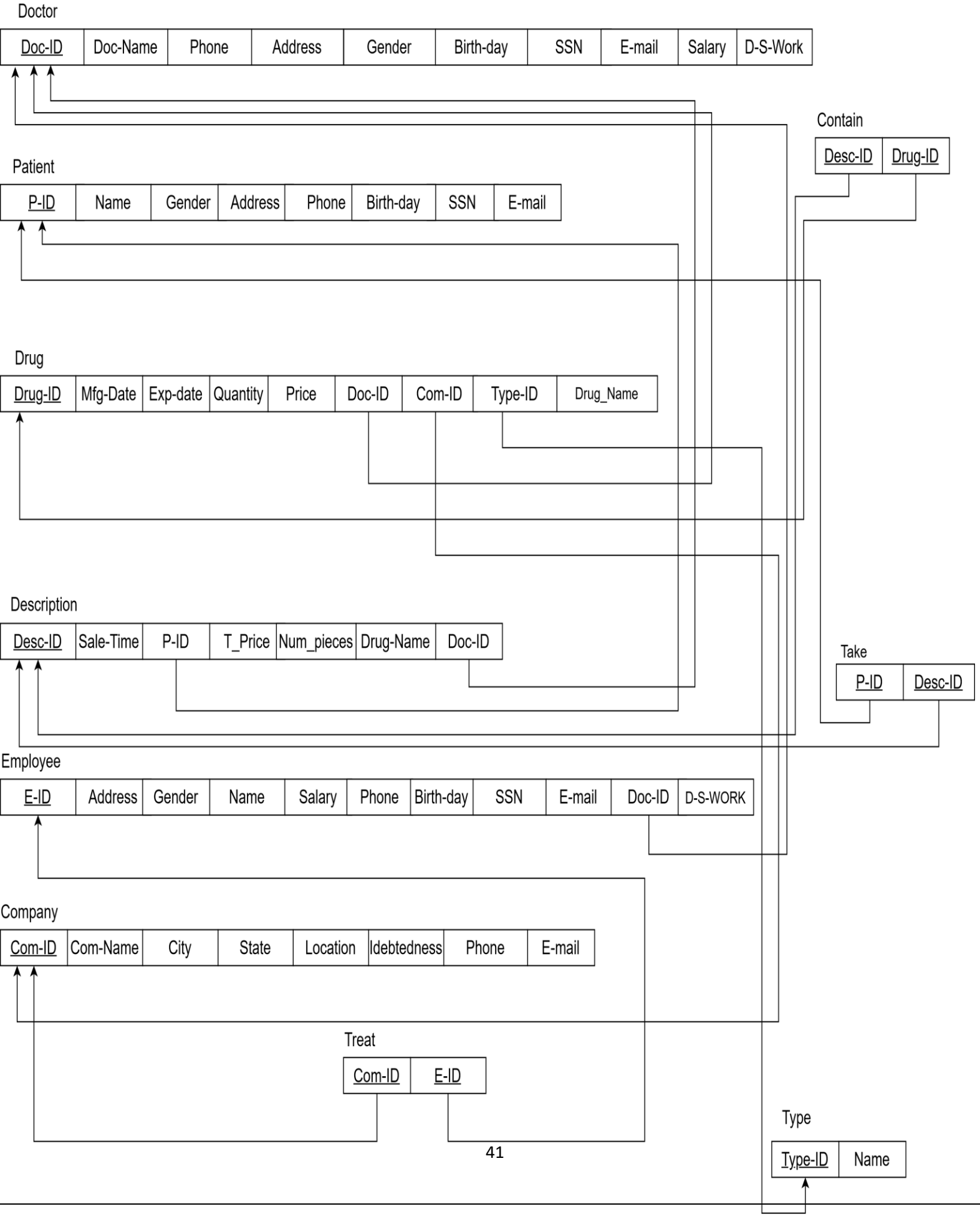
User Diagram:



ERD:


Employee
Address
Phone
Name
Gender
Salary
E-ID
D-S-WORK
E-mail
SSN
Birth-day
Treat
Company
Indebtedness
Phone
Com-Name
Com-ID
E-mail
City
State
Location
Manage
Provide
Doctor
Address
Phone
Doc-Name
Gender
Salary
D-S-Work
Doc-ID
E-mail
SSN
Birth-day
Sell
Drug
Quantity
Exp-Date
Price
Mfg-Date
Drug-ID
Drug-Name
Is
Type
Type-ID
Name
Contain
Spend
Description
Sale-Time
Drug-Name
Desc-ID
Num-pieces
T-Price
Take
Patient
Birth-day
Phone
Gender
Name
P-ID
SSN
E_mail
Address
1
m

Schema:


Doctor
Doc-ID
Doc-Name
Phone
Address
Gender
Birth-day
SSN
E-mail
Salary
D-S-Work
Contain
Desc-ID
Drug-ID
Patient
P-ID
Name
Gender
Address
Phone
Birth-day
SSN
E-mail
Drug
Drug-ID
Mfg-Date
Exp-date
Quantity
Price
Doc-ID
Com-ID
Type-ID
Drug_Name
Description
Desc-ID
Sale-Time
P-ID
T_Price
Num_pieces
Drug-Name
Doc-ID
Take
P-ID
Desc-ID
Employee
E-ID
Address
Gender
Name
Salary
Phone
Birth-day
SSN
E-mail
Doc-ID
D-S-WORK
Company
Com-ID
Com-Name
City
State
Location
Idebtedness
Phone
E-mail
Treat
Com-ID
E-ID
Type
Type-ID
Name

Chapter 4:

(Implementation and testing)

Topics:

4.1 Application Functions and testing

4.2 Responsive Application

Application Functions and testing:

```
create table DOCTOR
(
Doc_ID int primary key,
Doc_Name varchar(50) not null,
Phone varchar(11) not null unique,
Address varchar(50) not null,
Gender varchar(10) not null,
Birth_day datetime not null,
SSN varchar(14) not null unique,
E_mail varchar(50) null unique,
Salary money not null,
D_S_Work datetime not null,
)
```

```
Create table PATIENT
(
P_ID int primary key,
Name varchar(50) not null,
Phone varchar(11) NOT NULL unique,
Address varchar(50) not null,
Gender varchar(10) not null,
Birth_day datetime not null,
SSN varchar(14) not null unique,
E_mail varchar(50) null unique,
)
```

```
create table COMPANY
(
Com_ID int PRIMARY KEY,
Com_Name varchar(50) NOT NULL unique,
Idebtedness money NOT NULL,
Phone varchar(11) NOT NULL unique,
City varchar(50) NOT NULL,
State varchar(50) NOT NULL,
Location varchar(50) NOT NULL,
E_mail varchar(50) null unique,
)
```

```
CREATE TABLE TYPE
(
Type_Id int PRIMARY KEY,
Name varchar(50) NOT NULL,
)
```

```
CREATE TABLE DRUG
(
Drug_ID int primary key,
Drug_Name varchar(50) NOT NULL,
Mfg_Date datetime not null,
Exp_Date datetime not null,
Quantity int not null,
Price money not null,
Doc_ID int not null foreign key references DOCTOR (Doc_ID),
Com_ID int not null foreign key references COMPANY (Com_ID),
Type_ID int not null foreign key references TYPE (Type_ID),
)
```

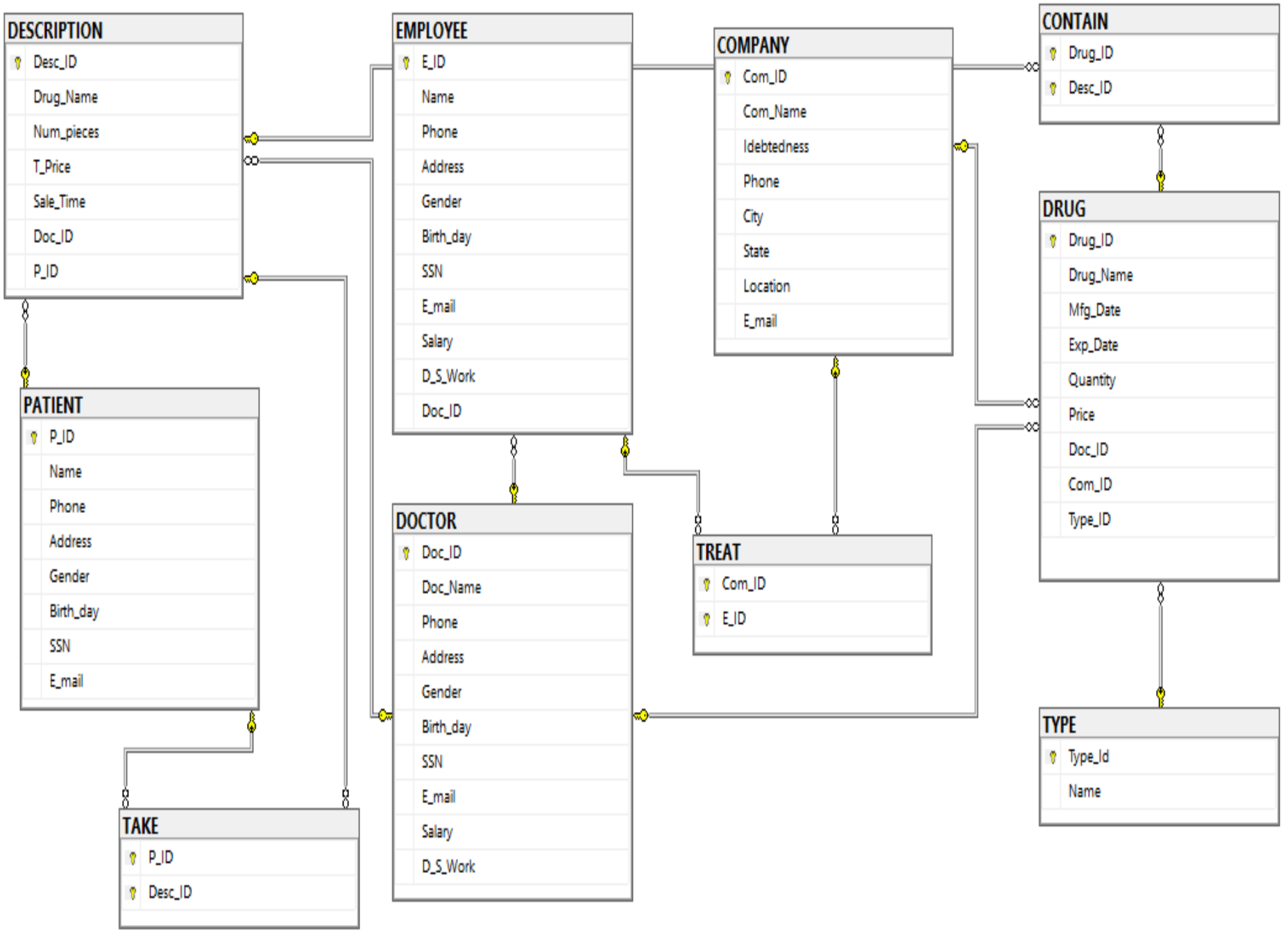
```
create table EMPLOYEE
(
E_ID int primary key,
Name varchar(50) not null,
Phone varchar(11) not null unique,
Address varchar(50) not null,
Gender varchar(10) not null,
Birth_day datetime not null,
SSN varchar(14) not null unique,
E_mail varchar(50) null unique,
Salary money not null,
D_S_Work datetime not null,
Doc_ID int not null foreign key references DOCTOR (Doc_ID),
)
```

```
CREATE TABLE DESCRIPTION
(
Desc_ID int primary key,
Drug_Name varchar(50) not null,
Num_pieces int not null,
T_Price money not null,
Sale_Time time not null,
Doc_ID int not null foreign key references DOCTOR (Doc_ID),
P_ID int not null foreign key references PATIENT (P_ID),
)
```

```
CREATE TABLE TREAT
(
Com_ID int not null FOREIGN KEY REFERENCES COMPANY (Com_ID),
E_ID int not null FOREIGN KEY REFERENCES EMPLOYEE (E_ID),
CONSTRAINT treat_pkey PRIMARY KEY (Com_ID,E_ID),
)
```

```
CREATE TABLE TAKE
(
P_ID int not null FOREIGN KEY REFERENCES PATIENT (P_ID),
Desc_ID int not null FOREIGN KEY REFERENCES DESCRIPTION (Desc_ID),
CONSTRAINT take_pkey PRIMARY KEY (P_ID,Desc_ID),
)
```

```
CREATE TABLE CONTAIN
(
Drug_ID int not null FOREIGN KEY REFERENCES DRUG (Drug_ID),
Desc_ID int not null FOREIGN KEY REFERENCES DESCRIPTION (Desc_ID),
CONSTRAINT contain_pkey PRIMARY KEY (Drug_ID,Desc_ID),
)
```


DESCRIPTION
Desc_ID
Drug_Name
Num_pieces
T_Price
Sale_Time
Doc_ID
P_ID
EMPLOYEE
E_ID
Name
Phone
Address
Gender
Birth_day
SSN
E_mail
Salary
D_S_Work
Doc_ID
COMPANY
Com_ID
Com_Name
Idebtedness
Phone
City
State
Location
E_mail
CONTAIN
Drug_ID
Desc_ID
DRUG
Drug_ID
Drug_Name
Mfg_Date
Exp_Date
Quantity
Price
Doc_ID
Com_ID
Type_ID
PATIENT
P_ID
Name
Phone
Address
Gender
Birth_day
SSN
E_mail
DOCTOR
Doc_ID
Doc_Name
Phone
Address
Gender
Birth_day
SSN
E_mail
Salary
D_S_Work
TREAT
Com_ID
E_ID
TAKE
P_ID
Desc_ID
TYPE
Type_Id
Name

Responsive Application:

```
insert into DOCTOR (Doc_ID,Doc_Name,Phone,Address,Gender,SSN,Birth_day,E_mail,Salary,D_S_Work)
values (210001,'Mahmoud Khaled Ahmed','01101867518','Bani Suif','male','30002010002500',1/2/1993,'mahmoudkah784@gmail.com',3000,3/10/2019),
       (210002,'Mahmoud Arafa Awis','01101867519','Bani Suif','male','30002010002501',1/2/1994,'mahmoudAra145@gmail.com',1100,2/11/2019),
       (210003,'Mahmoud Elsied Mohamed','01101867520','Bani Suif','male','30002010002502',12/2/1993,'mahmoudEMM151@gmail.com',3200,12/1/2020),
       (210004,'Mohamed Elsied Mohamed','01101867521','Bani Suif','male','30002010002503',12/2/1993,'MoRoony458@gmail.com',3200,12/10/2019),
       (210005,'Mohamed Gamal ','01101867522','Bani Suif','male','30002010002504',12/6/1994,'mmmoogame124@gmail.com',2200,19/5/2019),
       (210006,'Sara Ahmed','01101867523','Bani Suif','female','30002010002505',29/7/1998,'saraaa1542@gmail.com',2500,12/10/2019),
       (210007,'Moktar Khaled Ahmed','01101867524','Bani Suif','male','30002010002506',1/2/1993,'Meka14879@gmail.com',3500,3/12/2019),
       (210008,'walid Ahmed Mohamed','01101867525','Bani Suif','male','30002010002507',13/8/1992,'mwwka10079@gmail.com',2500,5/11/2018),
       (210009,'Shahd Mohamed ','01101867526','Bani Suif','female','30002010002508',16/4/1993,'ShMea4879@gmail.com',3300,31/10/2021),
       (210010,'Malak moktar Elsaied','01101867527','Bani Suif','female','30002010002509',10/9/1990,'MalkmE026015@gmail.com',3100,13/6/2022)
```

```
insert into PATIENT (P_ID,Name,Phone,Address,Gender,SSN,Birth_day,E_mail)
values (211001,'Mahmoud Ahmed Mahmoud','01031881546','Bani Suif','male','30002010002510',1/2/1993,'MahmoudAhmed784@gmail.com'),
       (211002,'Khaled Mahmoud Awis','01031881547','Bani Suif','male','30002010002511',1/2/1994,'KhaledMahmoud145@gmail.com'),
       (211003,'Arfa Elsied Khaled','01031881548','Bani Suif','male','30002010002512',12/2/1993,'Arfa152ElsiedKhaled@gmail.com'),
       (211004,'Mohamed Khaled Ahmed','01031881549','Bani Suif','male','30002010002513',12/2/1993,'MohaKhaAhmed458@gmail.com'),
       (211005,'Mona Gamal ','01031881550','Bani Suif','female','30002010002514',12/6/1994,'MonGamal 24@gmail.com'),
       (211006,'Sara Ahmed','01031881551','Bani Suif','female','30002010002515',29/7/1998,'saraaaSarahmed1542@gmail.com'),
       (211007,'Arfa Khaled Khaked','01031881552','Bani Suif','male','30002010002516',1/2/1993,'ArfKhalKhaked79@gmail.com'),
       (211008,'walid omer moktar','01031881553','Bani Suif','male','30002010002517',13/8/1992,'walommoktar079@gmail.com'),
       (211009,'Shady Elsaied ','01031881554','Bani Suif','male','30002010002518',16/4/1993,'SShadyEl4879@gmail.com'),
       (211010,'Marwa Elsaied Khaled','01031881555','Bani Suif','female','30002010002519',10/9/1990,'MaiedK6015@gmail.com')
```

```
insert into COMPANY (Com_ID,Com_Name,City,State,Location,Idebtedness,Phone,E_mail)
values (212001,'Adwia SAE','Cairo','Egypt','cairo',10000,'01526347815','AdwiaSAE@gmail.com'),
       (212002,'Pharco B International SAE','Alexandria','Egypt','alexandria',1000200,'01526347816','PharcoBInternationalSAE@gmail.com'),
       (212003,'GlaxoSmithKline SH','Gizeh','Egypt','gizeh',120100,'01526347817','GlaxoSmithKlineSH@gmail.com'),
       (212004,'Eva Pharma','Shubra El-Kheima','Egypt','shubra El-Kheima',52110000,'01526347818','EvaPharma@gmail.com'),
       (212005,'Al Hikma Pharma Company LLC','Port Said','Egypt','port Said',9810000,'01526347819','AlHikmaPharmaCompanyLLC@gmail.com'),
       (212006,'Markerel Pharmaceutical Industries','Suez','Egypt','suez',1610000,'01526347820','MarkerelPharmaceuticalIndustries@gmail.com'),
       (212007,'Menapharm Pharmaceuticals','Luxor','Egypt','luxor',6310000,'01526347821','MenapharmPharmaceuticals@gmail.com'),
       (212008,'Union Medical Pharmaceutical Company','Al-Mansura','Egypt','al-Mansura',1000,'01526347822','UnionMedicalPharmaceuticalCompany@gmail.com'),
       (212009,'Novartis Pharma LLC','Tanta','Egypt','tanta',0,'01526347823','NovartisPharmaLLC@gmail.com'),
       (212010,'Varonia Pharmaceuticals','Beni Suef','Egypt','beni Suef',110000,'01526347824','VaroniaPharmaceuticals@gmail.com')
```

```
insert into EMPLOYEE (E_ID,Name,Phone,Address,Gender,SSN,Birth_day,E_mail,Salary,D_S_Work,Doc_ID)
values (210221,'Mohamed Ahmed Nader','01103020102','Bani Suef','male','30302010101210',21/1/2001,'nhhggdjjuyc145@gmail.com',1200,22/10/2020,210001),
       (210222,'Nader Ayman','01103020103','Bani Suef','male','30302010101211',1/10/2000,'nmahhyuc145@gmail.com',1500,2/11/2019,210001),
       (210223,'Mena ELmamon saleh','01103020104','Bani Suef','female','30302010101212',26/12/1999,'mjreqwa145@gmail.com',1100,22/9/2021,210005),
       (210224,'Soha Nader Khaled','01103020105','Bani Suef','female','30302010101213',19/9/2000,'pilnuy145@gmail.com',1000,6/8/2022,210005)
```

```
insert into TYPE (Type_ID,Name)
values (10,'Disks'),
       (11,'Shorb'),
       (12,'injection'),
       (13,'ointment')
```

```
insert into DRUG (Drug_ID,Drug_Name,Mfg_Date,Exp_date,Quantity,Price,Doc_ID,Com_ID,Type_ID)
values (310001,'abacavir',12/2/2019,12/2/2024,120,54,210003,212003,10),
       (310002,'abafungin',11/2/2020,11/2/2026,12,56,210004,212001,10),
       (310003,'abagovomab',10/3/2020,10/3/2028,10,12,210003,212006,10),
       (310004,'abamectin',19/4/2021,19/4/2026,125,10,210003,212001,11),
       (310005,'abanoquil',25/6/2022,25/6/2028,20,15,210009,212009,11),
       (310006,'abarelix',31/8/2022,31/8/2026,26,40,210004,212002,11),
       (310007,'abatacept',6/9/2021,6/9/2028,48,90,210004,212002,12),
       (310008,'Abasol',28/10/2018,28/10/2026,74,102,210003,212002,12),
       (310009,'abciximab',9/12/2022,9/12/2029,95,156,210004,212002,13),
       (310010,'abecarnil',5/11/2020,5/11/2027,26,78,210004,212002,13)
```

```
insert into DESCRIPTION (Desc_ID,Sale_Time,P_ID,T_Price,Num_pieces,Drug_Name,Doc_ID)
values (2101,'12:10:00',211001,250,3,'abacavir+abafungin+abagovomab',210001),
       (2102,'15:00:00',211002,362,3,'Abasol+abatacept+abamectin',210002),
       (2103,'16:16:12',211003,150,2,'abacavir+abagovomab',210003),
       (2104,'17:46:06',211004,249,3,'abacavir+abafungin+abagovomab',210004),
       (2105,'22:54:08',211005,425,4,'abacavir+abafungin+abecarnil+abarelix',210004),
       (2106,'19:44:07',211006,415,4,'abacavir+abafungin+abagovomab+abciximab',210004),
       (2107,'12:25:01',211007,20,1,'abagovomab',210006),
       (2108,'23:14:06',211008,478,3,'abacavir abafungin abagovomab',210007),
       (2109,'16:10:12',211009,60,2,'abacavir Abasol',210009),
       (2110,'4:15:26',211010,120,1,'abacavir',210010)
```

```
insert into CONTAIN (Desc_ID,Drug_ID)
values (2101,310009),
       (2102,310008),
       (2103,310007),
       (2104,310006),
       (2105,310005),
       (2106,310004),
       (2107,310003),
       (2108,310002),
       (2109,310001)
```

```
insert into TAKE (Desc_ID,P_ID)
values (2101,211009),
       (2102,211008),
       (2103,211007),
       (2104,211006),
       (2105,211005),
       (2106,211004),
       (2107,211003),
       (2108,211002),
       (2109,211001)

insert into TREAT (Com_ID,E_ID)
values (212001,210221),
       (212002,210221),
       (212003,210221),
       (212004,210222),
       (212005,210222),
       (212006,210223),
       (212007,210223),
       (212008,210224),
       (212009,210224)
```

SQLQuery1.sql -...MOUD KHALED (60))*

```
select *
from DOCTOR
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210001	Mahmoud Khaled Ahmed	01101867518	Bani Suif	male	1900-01-01 00:00:00.000	30002010002500	mahmoudkah784@gmail.com	3000.00	1900-01-01 00:00:00.000
2	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000
3	210003	Mahmoud Elsied Mohamed	01101867520	Bani Suif	male	1900-01-01 00:00:00.000	30002010002502	mahmoudEMM151@gmail.com	3200.00	1900-01-01 00:00:00.000
4	210004	Mohamed Elsied Mohamed	01101867521	Bani Suif	male	1900-01-01 00:00:00.000	30002010002503	MoRoony458@gmail.com	3200.00	1900-01-01 00:00:00.000
5	210005	Mohamed Gamal	01101867522	Bani Suif	male	1900-01-01 00:00:00.000	30002010002504	mmmoogame124@gmail.com	2200.00	1900-01-01 00:00:00.000
6	210006	Sara Ahmed	01101867523	Bani Suif	female	1900-01-01 00:00:00.000	30002010002505	saraaa1542@gmail.com	2500.00	1900-01-01 00:00:00.000
7	210007	Moktar Khaled Ahmed	01101867524	Bani Suif	male	1900-01-01 00:00:00.000	30002010002506	Meka14879@gmail.com	3500.00	1900-01-01 00:00:00.000
8	210008	walid Ahmed Mohamed	01101867525	Bani Suif	male	1900-01-01 00:00:00.000	30002010002507	mwwka10079@gmail.com	2500.00	1900-01-01 00:00:00.000
9	210009	Shahd Mohamed	01101867526	Bani Suif	female	1900-01-01 00:00:00.000	30002010002508	ShMea4879@gmail.com	3300.00	1900-01-01 00:00:00.000
10	210010	Malak moktar Elsaied	01101867527	Bani Suif	female	1900-01-01 00:00:00.000	30002010002509	MalkmE026015@gmail.com	3100.00	1900-01-01 00:00:00.000

SQLQuery1.sql -...MOUD KHA

```
select *
from CONTAIN
```

100 %

Results | Messages

	Drug_ID	Desc_ID
1	310001	2109
2	310002	2108
3	310003	2107
4	310004	2106
5	310005	2105
6	310006	2104
7	310007	2103
8	310008	2102
9	310009	2101

SQLQuery1.sql -...MOUD KHALED (60))*

```
select *
from DRUG
```

100 %

Results | Messages

	Drug_ID	Drug_Name	Mfg_Date	Exp_Date	Quantity	Price	Doc_ID	Com_ID	Type_ID
1	310001	abacavir	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	120	54.00	210003	212003	10
2	310002	abafungin	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	12	56.00	210004	212001	10
3	310003	abagovomab	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	10	12.00	210003	212006	10
4	310004	abamectin	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	125	10.00	210003	212001	11
5	310005	abanoquil	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	20	15.00	210009	212009	11
6	310006	abarelix	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	26	40.00	210004	212002	11
7	310007	abatacept	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	48	90.00	210004	212002	12
8	310008	Abasol	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	74	102.00	210003	212002	12
9	310009	abciximab	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	95	156.00	210004	212002	13
10	310010	abecarnil	1900-01-01 00:00:00.000	1900-01-01 00:00:00.000	26	78.00	210004	212002	13

SQLQuery1.sql -...MOUD KHALED (60))*

```
select P_ID,Name
from PATIENT
```

100 %

Results | Messages

	P_ID	Name
1	211001	Mahmoud Ahmed Mahmoud
2	211002	Khaled Mahmoud Awis
3	211003	Arfa Elsied Khaled
4	211004	Mohamed Khaled Ahmed
5	211005	Mona Gamal
6	211006	Sara Ahmed
7	211007	Arfa Khaled Khaked
8	211008	walid omer moktar
9	211009	Shady Elsaied
10	211010	Marwa Elsaied Khaled

SQLQuery1.sql -...MOUD KHALED (60))*

```
select P_ID,Desc_ID,T_Price,Doc_ID,Drug_Name
from DESCRIPTION
```

100 %

Results | Messages

	P_ID	Desc_ID	T_Price	Doc_ID	Drug_Name
1	211001	2101	250.00	210001	abacavir+abafungin+abagovomab
2	211002	2102	362.00	210002	Abasol+abatacept+abamectin
3	211003	2103	150.00	210003	abacavir+abagovomab
4	211004	2104	249.00	210004	abacavir+abafungin+abagovomab
5	211005	2105	425.00	210004	abacavir+abafungin+abecarnil+abarelix
6	211006	2106	415.00	210004	abacavir+abafungin+abagovomab+abciximab
7	211007	2107	20.00	210006	abagovomab
8	211008	2108	478.00	210007	abacavir abafungin abagovomab
9	211009	2109	60.00	210009	abacavir Abasol
10	211010	2110	120.00	210010	abacavir

SQLQuery1.sql -...MOUD KHALED (60))*

```
select DISTINCT P_ID,Desc_ID,T_Price,Doc_ID,Drug_Name
from DESCRIPTION
```

100 %

Results | Messages

	P_ID	Desc_ID	T_Price	Doc_ID	Drug_Name
1	211001	2101	250.00	210001	abacavir+abafungin+abagovomab
2	211002	2102	362.00	210002	Abasol+abatacept+abamectin
3	211003	2103	150.00	210003	abacavir+abagovomab
4	211004	2104	249.00	210004	abacavir+abafungin+abagovomab
5	211005	2105	425.00	210004	abacavir+abafungin+abecarnil+abarelix
6	211006	2106	415.00	210004	abacavir+abafungin+abagovomab+abciximab
7	211007	2107	20.00	210006	abagovomab
8	211008	2108	478.00	210007	abacavir abafungin abagovomab
9	211009	2109	60.00	210009	abacavir Abasol
10	211010	2110	120.00	210010	abacavir

SQLQuery1.sql -...MOUD KHALED (60))*

```
select *
from DOCTOR order by D_S_Work
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210001	Mahmoud Khaled Ahmed	01101867518	Bani Suif	male	1900-01-01 00:00:00.000	30002010002500	mahmoudkah784@gmail.com	3000.00	1900-01-01 00:00:00.000
2	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000
3	210003	Mahmoud Elsied Mohamed	01101867520	Bani Suif	male	1900-01-01 00:00:00.000	30002010002502	mahmoudEMM151@gmail.com	3200.00	1900-01-01 00:00:00.000
4	210004	Mohamed Elsied Mohamed	01101867521	Bani Suif	male	1900-01-01 00:00:00.000	30002010002503	MoRoony458@gmail.com	3200.00	1900-01-01 00:00:00.000
5	210005	Mohamed Gamal	01101867522	Bani Suif	male	1900-01-01 00:00:00.000	30002010002504	mmmoogame124@gmail.com	2200.00	1900-01-01 00:00:00.000
6	210006	Sara Ahmed	01101867523	Bani Suif	female	1900-01-01 00:00:00.000	30002010002505	saraaa1542@gmail.com	2500.00	1900-01-01 00:00:00.000
7	210007	Moktar Khaled Ahmed	01101867524	Bani Suif	male	1900-01-01 00:00:00.000	30002010002506	Meka14879@gmail.com	3500.00	1900-01-01 00:00:00.000
8	210008	walid Ahmed Mohamed	01101867525	Bani Suif	male	1900-01-01 00:00:00.000	30002010002507	mwwka10079@gmail.com	2500.00	1900-01-01 00:00:00.000
9	210009	Shahd Mohamed	01101867526	Bani Suif	female	1900-01-01 00:00:00.000	30002010002508	ShMea4879@gmail.com	3300.00	1900-01-01 00:00:00.000
10	210010	Malak moktar Elsaied	01101867527	Bani Suif	female	1900-01-01 00:00:00.000	30002010002509	MalkmE026015@gmail.com	3100.00	1900-01-01 00:00:00.000

SQLQuery1.sql -...MOUD KHALED (60))*

```
select *
from DOCTOR order by D_S_Work,Doc_Name
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000
2	210003	Mahmoud Elsied Mohamed	01101867520	Bani Suif	male	1900-01-01 00:00:00.000	30002010002502	mahmoudEMM151@gmail.com	3200.00	1900-01-01 00:00:00.000
3	210001	Mahmoud Khaled Ahmed	01101867518	Bani Suif	male	1900-01-01 00:00:00.000	30002010002500	mahmoudkah784@gmail.com	3000.00	1900-01-01 00:00:00.000
4	210010	Malak moktar Elsaied	01101867527	Bani Suif	female	1900-01-01 00:00:00.000	30002010002509	MalkmE026015@gmail.com	3100.00	1900-01-01 00:00:00.000
5	210004	Mohamed Elsied Mohamed	01101867521	Bani Suif	male	1900-01-01 00:00:00.000	30002010002503	MoRoony458@gmail.com	3200.00	1900-01-01 00:00:00.000
6	210005	Mohamed Gamal	01101867522	Bani Suif	male	1900-01-01 00:00:00.000	30002010002504	mmmoogame124@gmail.com	2200.00	1900-01-01 00:00:00.000
7	210007	Moktar Khaled Ahmed	01101867524	Bani Suif	male	1900-01-01 00:00:00.000	30002010002506	Meka14879@gmail.com	3500.00	1900-01-01 00:00:00.000
8	210006	Sara Ahmed	01101867523	Bani Suif	female	1900-01-01 00:00:00.000	30002010002505	saraaa1542@gmail.com	2500.00	1900-01-01 00:00:00.000
9	210009	Shahd Mohamed	01101867526	Bani Suif	female	1900-01-01 00:00:00.000	30002010002508	ShMea4879@gmail.com	3300.00	1900-01-01 00:00:00.000
10	210008	walid Ahmed Mohamed	01101867525	Bani Suif	male	1900-01-01 00:00:00.000	30002010002507	mwwka10079@gmail.com	2500.00	1900-01-01 00:00:00.000

SQLQuery1.sql -...MOUD KHALED (60))*

```
select *
from DOCTOR order by Doc_Name asc
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000
2	210003	Mahmoud Elsied Mohamed	01101867520	Bani Suif	male	1900-01-01 00:00:00.000	30002010002502	mahmoudEMM151@gmail.com	3200.00	1900-01-01 00:00:00.000
3	210001	Mahmoud Khaled Ahmed	01101867518	Bani Suif	male	1900-01-01 00:00:00.000	30002010002500	mahmoudkah784@gmail.com	3000.00	1900-01-01 00:00:00.000
4	210010	Malak moktar Elsaied	01101867527	Bani Suif	female	1900-01-01 00:00:00.000	30002010002509	MalkmE026015@gmail.com	3100.00	1900-01-01 00:00:00.000
5	210004	Mohamed Elsied Mohamed	01101867521	Bani Suif	male	1900-01-01 00:00:00.000	30002010002503	MoRoony458@gmail.com	3200.00	1900-01-01 00:00:00.000
6	210005	Mohamed Gamal	01101867522	Bani Suif	male	1900-01-01 00:00:00.000	30002010002504	mmmoogame124@gmail.com	2200.00	1900-01-01 00:00:00.000
7	210007	Moktar Khaled Ahmed	01101867524	Bani Suif	male	1900-01-01 00:00:00.000	30002010002506	Meka14879@gmail.com	3500.00	1900-01-01 00:00:00.000
8	210006	Sara Ahmed	01101867523	Bani Suif	female	1900-01-01 00:00:00.000	30002010002505	saraaa1542@gmail.com	2500.00	1900-01-01 00:00:00.000
9	210009	Shahd Mohamed	01101867526	Bani Suif	female	1900-01-01 00:00:00.000	30002010002508	ShMea4879@gmail.com	3300.00	1900-01-01 00:00:00.000
10	210008	walid Ahmed Mohamed	01101867525	Bani Suif	male	1900-01-01 00:00:00.000	30002010002507	mwwka10079@gmail.com	2500.00	1900-01-01 00:00:00.000

```
LQuery1.sql -...MOUD KHALED (60))*
select *
from DOCTOR order by Doc_Name desc
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210008	walid Ahmed Mohamed	01101867525	Bani Suif	male	1900-01-01 00:00:00.000	30002010002507	mwwka10079@gmail.com	2500.00	1900-01-01 00:00:00.000
2	210009	Shahd Mohamed	01101867526	Bani Suif	female	1900-01-01 00:00:00.000	30002010002508	ShMea4879@gmail.com	3300.00	1900-01-01 00:00:00.000
3	210006	Sara Ahmed	01101867523	Bani Suif	female	1900-01-01 00:00:00.000	30002010002505	saraaa1542@gmail.com	2500.00	1900-01-01 00:00:00.000
4	210007	Moktar Khaled Ahmed	01101867524	Bani Suif	male	1900-01-01 00:00:00.000	30002010002506	Meka14879@gmail.com	3500.00	1900-01-01 00:00:00.000
5	210005	Mohamed Gamal	01101867522	Bani Suif	male	1900-01-01 00:00:00.000	30002010002504	mmmoogame124@gmail.com	2200.00	1900-01-01 00:00:00.000
6	210004	Mohamed Elsied Mohamed	01101867521	Bani Suif	male	1900-01-01 00:00:00.000	30002010002503	MoRoony458@gmail.com	3200.00	1900-01-01 00:00:00.000
7	210010	Malak moktar Elsaied	01101867527	Bani Suif	female	1900-01-01 00:00:00.000	30002010002509	MalkmE026015@gmail.com	3100.00	1900-01-01 00:00:00.000
8	210001	Mahmoud Khaled Ahmed	01101867518	Bani Suif	male	1900-01-01 00:00:00.000	30002010002500	mahmoudkah784@gmail.com	3000.00	1900-01-01 00:00:00.000
9	210003	Mahmoud Elsied Mohamed	01101867520	Bani Suif	male	1900-01-01 00:00:00.000	30002010002502	mahmoudEMM151@gmail.com	3200.00	1900-01-01 00:00:00.000
10	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000

```
SQLQuery1.sql -...MOUD KHALED (60))*
select *
from DOCTOR
where Doc_ID = 210002
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Address	Gender	Birth_day	SSN	E_mail	Salary	D_S_Work
1	210002	Mahmoud Arafa Awis	01101867519	Bani Suif	male	1900-01-01 00:00:00.000	30002010002501	mahmoudAra145@gmail.com	1100.00	1900-01-01 00:00:00.000

```
SQLQuery1.sql -...MOUD KHALED (60))*
select Doc_ID,Doc_Name,Phone,Gender,SSN,Salary
from DOCTOR
where Doc_ID <> 210002
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Gender	SSN	Salary
1	210001	Mahmoud Khaled Ahmed	01101867518	male	30002010002500	3000.00
2	210003	Mahmoud Elsied Mohamed	01101867520	male	30002010002502	3200.00
3	210004	Mohamed Elsied Mohamed	01101867521	male	30002010002503	3200.00
4	210005	Mohamed Gamal	01101867522	male	30002010002504	2200.00
5	210006	Sara Ahmed	01101867523	female	30002010002505	2500.00
6	210007	Moktar Khaled Ahmed	01101867524	male	30002010002506	3500.00
7	210008	walid Ahmed Mohamed	01101867525	male	30002010002507	2500.00
8	210009	Shahd Mohamed	01101867526	female	30002010002508	3300.00
9	210010	Malak moktar Elsaied	01101867527	female	30002010002509	3100.00

SQLQuery1.sql -...MOUD KHALED (60))*

```
select Doc_ID,Doc_Name,Phone,Gender,SSN,Salary
from DOCTOR
where Doc_ID >= 210005
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Gender	SSN	Salary
1	210005	Mohamed Gamal	01101867522	male	30002010002504	2200.00
2	210006	Sara Ahmed	01101867523	female	30002010002505	2500.00
3	210007	Moktar Khaled Ahmed	01101867524	male	30002010002506	3500.00
4	210008	walid Ahmed Mohamed	01101867525	male	30002010002507	2500.00
5	210009	Shahd Mohamed	01101867526	female	30002010002508	3300.00
6	210010	Malak moktar Elsaied	01101867527	female	30002010002509	3100.00

SQLQuery1.sql -...MOUD KHALED (60))*

```
select Doc_ID,Doc_Name,Phone,Gender,SSN,Salary
from DOCTOR
where Doc_Name like 'm%'
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Gender	SSN	Salary
1	210001	Mahmoud Khaled Ahmed	01101867518	male	30002010002500	3000.00
2	210002	Mahmoud Arafa Awis	01101867519	male	30002010002501	1100.00
3	210003	Mahmoud Elsied Mohamed	01101867520	male	30002010002502	3200.00
4	210004	Mohamed Elsied Mohamed	01101867521	male	30002010002503	3200.00
5	210005	Mohamed Gamal	01101867522	male	30002010002504	2200.00
6	210007	Moktar Khaled Ahmed	01101867524	male	30002010002506	3500.00
7	210010	Malak moktar Elsaied	01101867527	female	30002010002509	3100.00

SQLQuery1.sql -...MOUD KHALED (60))*

```
select Doc_ID,Doc_Name,Phone,Gender,SSN,Salary
from DOCTOR
where Doc_Name not like 'm%'
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Gender	SSN	Salary
1	210006	Sara Ahmed	01101867523	female	30002010002505	2500.00
2	210008	walid Ahmed Mohamed	01101867525	male	30002010002507	2500.00
3	210009	Shahd Mohamed	01101867526	female	30002010002508	3300.00

SQLQuery1.sql -...MOUD KHALED (60))*

```
select Doc_ID,Doc_Name,Phone,Gender,SSN,Salary
from DOCTOR
where Doc_ID BETWEEN 210005 And 210008
```

100 %

Results | Messages

	Doc_ID	Doc_Name	Phone	Gender	SSN	Salary
1	210005	Mohamed Gamal	01101867522	male	30002010002504	2200.00
2	210006	Sara Ahmed	01101867523	female	30002010002505	2500.00
3	210007	Moktar Khaled Ahmed	01101867524	male	30002010002506	3500.00
4	210008	walid Ahmed Mohamed	01101867525	male	30002010002507	2500.00

MAHMOUD\SQLEXPR...- dbo.EMPLOYEE | SQLQuery1.sql -...MOUD KHALED (60

```
select E_ID,Name,Phone,Gender,SSN,Salary
from EMPLOYEE
where Name = 'Soha Nader Khaled' and Gender = 'female'
```

100 %

Results | Messages

	E_ID	Name	Phone	Gender	SSN	Salary
1	210224	Soha Nader Khaled	01103020105	female	30302010101213	1000.00

```
MAHMOUD\SQLEXPR...- dbo.EMPLOYEE    SQLQuery1.sql -...MOUD KHALED (60)
select E_ID,Name,Phone,Gender,SSN,Salary
from EMPLOYEE
where Name = 'S%' or Gender = 'female'
```

100 %

Results | Messages

	E_ID	Name	Phone	Gender	SSN	Salary
1	210223	Mena ELmamon saleh	01103020104	female	30302010101212	1100.00
2	210224	Soha Nader Khaled	01103020105	female	30302010101213	1000.00

```
MAHMOUD\SQLEXPR...- dbo.EMPLOYEE
select MAX (Salary)
from EMPLOYEE
```

100 %

Results | Messages

	(No column name)
1	1500.00

```
MAHMOUD\SQLEXPR...- dbo.EMPLOYEE    SQLQuery1.sql -
select MIN (Salary)
from EMPLOYEE
```

100 %

Results | Messages

	(No column name)
1	1000.00

```
select COUNT (E_ID)
from EMPLOYEE
```

100 %

Results | Messages

	(No column name)
1	4

```
SELECT        Doc_Name,D_S_Work
FROM           DOCTOR, DRUG
WHERE        DOCTOR.Doc_ID = DRUG.Doc_ID
GROUP BY Doc_Name,D_S_Work
```

100 %

Results | Messages

	Doc_Name	D_S_Work
1	Mahmoud Elsied Mohamed	1900-01-01 00:00:00.000
2	Mohamed Elsied Mohamed	1900-01-01 00:00:00.000
3	Shahd Mohamed	1900-01-01 00:00:00.000

SQLQuery1.sql -...MOUD KHALED (51))*

```
select DOCTOR.Doc_Name, DRUG.Drug_Name
from DOCTOR
INNER JOIN DRUG ON DOCTOR.Doc_ID = DRUG.Doc_ID
```

100 %

Results | Messages

	Doc_Name	Drug_Name
1	Mahmoud Elsied Mohamed	abacavir
2	Mohamed Elsied Mohamed	abafungin
3	Mahmoud Elsied Mohamed	abagovomab
4	Mahmoud Elsied Mohamed	abamectin
5	Shahd Mohamed	abanoquil
6	Mohamed Elsied Mohamed	abarelix
7	Mohamed Elsied Mohamed	abatacept
8	Mahmoud Elsied Mohamed	Abasol
9	Mohamed Elsied Mohamed	abciximab
10	Mohamed Elsied Mohamed	abecarnil

```
select d.Doc_Name , x.Drug_Name,x.Drug_ID,d.Doc_ID
from DOCTOR d join DRUG x
on d.Doc_ID = x.Doc_ID
where x.Doc_ID
BETWEEN x.Doc_ID  and d.Doc_ID
```

100 %

Results | Messages

	Doc_Name	Drug_Name	Drug_ID	Doc_ID
1	Mahmoud Elsied Mohamed	abacavir	310001	210003
2	Mohamed Elsied Mohamed	abafungin	310002	210004
3	Mahmoud Elsied Mohamed	abagovomab	310003	210003
4	Mahmoud Elsied Mohamed	abamectin	310004	210003
5	Shahd Mohamed	abanoquil	310005	210009
6	Mohamed Elsied Mohamed	abarelix	310006	210004
7	Mohamed Elsied Mohamed	abatacept	310007	210004
8	Mahmoud Elsied Mohamed	Abasol	310008	210003
9	Mohamed Elsied Mohamed	abciximab	310009	210004
10	Mohamed Elsied Mohamed	abecarnil	310010	210004

```
select d.Doc_Name , x.Drug_Name,x.Drug_ID,d.Doc_ID
from DOCTOR d left outer join DRUG x
on d.Doc_ID = x.Doc_ID
```

100 %

Results | Messages

	Doc_Name	Drug_Name	Drug_ID	Doc_ID
1	Mahmoud Khaled Ahmed	NULL	NULL	210001
2	Mahmoud Arafa Awis	NULL	NULL	210002
3	Mahmoud Elsied Mohamed	abacavir	310001	210003
4	Mahmoud Elsied Mohamed	abagovomab	310003	210003
5	Mahmoud Elsied Mohamed	abamectin	310004	210003
6	Mahmoud Elsied Mohamed	Abasol	310008	210003
7	Mohamed Elsied Mohamed	abafungin	310002	210004
8	Mohamed Elsied Mohamed	abarelix	310006	210004
9	Mohamed Elsied Mohamed	abatacept	310007	210004
10	Mohamed Elsied Mohamed	abciximab	310009	210004
11	Mohamed Elsied Mohamed	abecarnil	310010	210004
12	Mohamed Gamal	NULL	NULL	210005
13	Sara Ahmed	NULL	NULL	210006
14	Moktar Khaled Ahmed	NULL	NULL	210007
15	walid Ahmed Mohamed	NULL	NULL	210008
16	Shahd Mohamed	abanoquil	310005	210009
17	Malak moktar Elsaied	NULL	NULL	210010

```
select d.Doc_Name , x.Drug_Name,x.Drug_ID,d.Doc_ID
from DOCTOR d right outer join DRUG x
on d.Doc_ID = x.Doc_ID
```

100 %

Results | Messages

	Doc_Name	Drug_Name	Drug_ID	Doc_ID
1	Mahmoud Elsied Mohamed	abacavir	310001	210003
2	Mohamed Elsied Mohamed	abafungin	310002	210004
3	Mahmoud Elsied Mohamed	abagovomab	310003	210003
4	Mahmoud Elsied Mohamed	abamectin	310004	210003
5	Shahd Mohamed	abanoquil	310005	210009
6	Mohamed Elsied Mohamed	abarelix	310006	210004
7	Mohamed Elsied Mohamed	abatacept	310007	210004
8	Mahmoud Elsied Mohamed	Abasol	310008	210003
9	Mohamed Elsied Mohamed	abciximab	310009	210004
10	Mohamed Elsied Mohamed	abecarnil	310010	210004

```
select d.Doc_Name , x.Drug_Name,x.Drug_ID,d.Doc_ID
from DOCTOR d full outer join DRUG x
on d.Doc_ID = x.Doc_ID
```

100 %

Results | Messages

	Doc_Name	Drug_Name	Drug_ID	Doc_ID
1	Mahmoud Khaled Ahmed	NULL	NULL	210001
2	Mahmoud Arafa Awis	NULL	NULL	210002
3	Mahmoud Elsied Mohamed	abacavir	310001	210003
4	Mahmoud Elsied Mohamed	abagovomab	310003	210003
5	Mahmoud Elsied Mohamed	abamectin	310004	210003
6	Mahmoud Elsied Mohamed	Abasol	310008	210003
7	Mohamed Elsied Mohamed	abafungin	310002	210004
8	Mohamed Elsied Mohamed	abarelix	310006	210004
9	Mohamed Elsied Mohamed	abatacept	310007	210004
10	Mohamed Elsied Mohamed	abciximab	310009	210004
11	Mohamed Elsied Mohamed	abecarnil	310010	210004
12	Mohamed Gamal	NULL	NULL	210005
13	Sara Ahmed	NULL	NULL	210006
14	Moktar Khaled Ahmed	NULL	NULL	210007
15	walid Ahmed Mohamed	NULL	NULL	210008
16	Shahd Mohamed	abanoquil	310005	210009
17	Malak moktar Elsaied	NULL	NULL	210010

Chapter 5:

(Conclusion & Future work)

Conclusion:

Pharmacy management system is a software which handle the essential data and save the data and about the database of a pharmacy and its management. This software helps in effectively management of the pharmaceutical store or shop. It provides the statistics about medicine or drugs which are in stocks which data can also be updated and edited. It works as per the requirement of the user and have options accordingly. It allows user to enter manufacturing as well as the expiry date of medicine placing in stock and for sales transaction. This software also has ability to print reports and receipts etc.

Future work:

In the future pharmacy managers can generate prescriptions as labels and we can put that prescription details in products also. The whole project will be made available as a web app for far more ease of use and mobility. Increasing facilities of this software. Medicine Purchase Request & Order to manage the purchase requests and order requests received for the medicines. Physical stock verification & adjustment is responsible to verify the physical stock and the decision regarding adjustment (if required) can take place. Destruction of Expired Items is again vital to have the information of expired items that need to be destroyed so that the process can be held timely. Return of items nearing Expiry is a record of items nearing the expiry date, so this way they can be returned on time.