Software Requirements Specification

for

<Pharmacy management system>

Version 1.0

Prepared by <

Team: Pharmacy management system

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Revision History

Name	Date	Reason For Changes	Version
All member	8/3/2023		

1. Introduction

Pharmacy management system is a web application that is designed to improve accuracy and to enhance safety and efficiency in the pharmaceutical store. It is a computer based system which helps the Pharmacist to improve inventory management, cost, medical safety etc.

The pharmacy is divided into several departments
Each section has a set of features:

Suppliers: the system provide collecting all details about the suppliers(phone number, national id, name) and choose from it depending on the offers and prices as well as the how fast they are in delivering the products and they also accept taking the expired medications. The pharmacist pays to its suppliers according to their desire, if it is in cash or by credit.

Inventory: the system will automatically arrange the medication in alphabetic form and it will also register all details about medication (amount, name, expiry date, product date) as it also alert the pharmacist with a warning message for the medications that's about to expire or for the medicines that will sold out of stock and it will provide a special document that will store all the details about the medications that will expire soon as it will automatically filter the medication and will make a list for the medications that will sold out soon.

HR: The system provide account for the assistant pharmacists and the doctor determine the power of the assistants pharmacists as The system will also provide to register all details about pharmacist assistant (Name, Phone number, National Id, Address ,salary ,bonus ,discount) as well as the customer doesn't have an access to the system.

Delivery worker: The system will connected to the delivery man's phone to get orders with all the details of the patient(address, phone number).

Purchase &sales: The system provide the pharmacists to enter the name of the medication and its quantity and will alert (pharmacists assistant) to make allergy test for specific medications as it also will show pharmacists the alternative medicines if a specific medication is out of stock and will make a special sales list for the medication which contain a percentage of drugs.

(pharmacists assistance doesn't have authority to open this list).

Accounting &Finance: The system provide to take all details about patients(customer) (name, phone number, address)and this details is benefit for making discount and for deferred payment and it will alert the pharmacist of the upcoming salary payment date also system provide to compare between weeks, months, years , days to know net profit or sales percentage and will also show the pharmacists all details that the pharmacist chose to compare.

1.1 purpose

The purpose of this project is to develop a software for the effective management of a pharmaceutical store that will be able to achieve the following objectives:

1. It provides the pharmacists with ease and convenience to get all the details on all pharmaceutical products & supplier at any time accurately.

2. Provides all the patient's requirements in terms of safety, health and safety.

1.2 Product Scope

  The system of this project is limited to all pharmaceutical products and since we are in a modern society that is constantly evolving so we have established a management system based on improving the efficiency of the pharmacy.
The system will contain all information about pharmaceutical purposes, including recording the date of production, expiry and quantity.

1.3 References

Pharmacy management system - Wikipedia

Why using pharmacy management system? - برنامج ادارة الصيدليات (pharmacare-phms.com)

Dr.sanaa Maher

7IJEEC-JUN20218-Pharmacy[1].pdf

2. Overall Description

2.1 Product Functions

the major functions the product must perform or must let the user perform will be as the following:

1. Make it easier for the pharmacists to know the amount available for a particular medication..
2. Make it easier for the pharmacists/pharmacists assistance to know if the medicine exist or not.
3. Make it easier for the pharmacists to know details of the drug.
4. Make it easier for the pharmacists /pharmacists assistance to know the cost for a particular medication..
5. Make it easier for the pharmacists /pharmacists assistance to know the alternative medicines for the same type of medicine.
6. The system provide multiple way for payment(cash, credit).
7. The system will make the pharmacists /pharmacists assistance save more money and more time for the patient (customer) by taking his (name, phone number, national id)to register him on the system by this details .
8. If the pharmacists client doesn't have money he can pay another time by taking his (name, phone number, national id).
9. A system will provide the creation of a sales list for medicines that contain a drug percentage, and it is the prerogative of the pharmacist only.

2.2 User Classes and Characteristics

1. The pharmacist will have all the powers of the system he can know all the details about the system).
2. The Pharmacist Assistant who Records the medicines with the date of production and expiration, the quantity of medicines available, the price of each medicines and the registration of client information(address, phone number, name) as he also have the authority to sell and retrieve medicines.
3. client doesn't have access to the system.

2.3 Operating Environment

Hardware:

Processor: Pentium V or higher.

Microcontroller: Uno Board Humidity, Air Quality, Pressure

Processor speed: 2.6GHz.

Ram:1 GB.

Hard disk :1 GB or higher.

Software:

Operating System:

Windows 7 or higher.
Platform: XAMPP .
Database: MySQL.
Technologies used: C, SQL, PHP.

 chrome & google :this is for web application.

2.4 Assumptions and Dependencies

1) the system got hacked .
2) Drop in the system.
3) Old version of browsers.

3. System Functions

3.1.1 Supplier

Code	Requirements statement	Must/should	Comments
FR001	The system make a list for all supplier (for the pharmacists).	Must	
FR002	The system will compare the supplier(depending on the prices and there offers and how fast they are in delivering the products).	Must	
FR003	The system will automatically store all the details about the supplier(name ,phone ,national id).	Must	
FR004	The system will specify the major of the supplier(Pharmaceutical purposes differ from one supplier to another)	Should	
FR005	The system will show you the rating of the supplier .	Must	
FR006	The system will show you the offer for each supplier.	Must	
FR007	The system will show you the negative comment about the supplier.	Should	
FR008	The system will show you the pharmacies that contacted with these supplier.	Should	

FR009	Once the drug is finished, the system will provide all the details about the drug, all the suppliers associated with the drug, and all the most abundant documents.	Must	
FR010	The system will directly contact with the supplier for new updates about the medication.	Should	

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3.2 Product

Code	Requirements statement		Comments
FR008	The system will arrange the medicines in alphabetic form.	Must	
FR009	The system will store every detail about the medicines .	Must	
FR010	The system will store the alternative medicines for any medication	Must	
FR011	The system will store the quantity for the medications.	Must	
FR012	The system will send alert message for the pharmacist to show that the quantity of the medicines almost sold out.	Must	
FR013	The system will allow the pharmacists to store the stock of the medicines manually.	Must	
FR014	The system will allow the pharmacists to register the expiration date and the production date of the medication.	Must	
FR015	The system will send alert message for the pharmacist to show the medication that will almost expire .	Must	
FR016	The system will automatically filter the medication .	Must	
FR017	The system will make a list for the medications that will sold out soon after filtering.	Must	
FR018	The system will make special sales list for specific medicines (drugs).	Must	
FR019	The system will send alert message for the pharmacist assistant to inform her to make allergy test.	Must	

FR020	Once the system will registered the name of the drug it will be give a special code.	Should	
FR021	The system will send warning message for the pharmacist assistant when he sell a medicine from special list.	Must	
FR022	The system will provide to sell the medication (tablet)(strips ,tablet ,big box ,small box).	Must	
FR023	The system will allow me to update the price of the medication	Must	
FR024	The system contains a list of conflicting medications	Must	
FR025	1)The system will send an alert message to the pharmacist if the customer requests two types of medication that conflict with each other 2)Every medicine should have a bar code for the system to scan it.	Must	

3.3 Payment

Code	Requirements statement	Must/should	Comments
FR026	The system Payment should be by cash, credit.	Must	
FR027	The system should register the customer's name, address and phone number.	Must	
FR028	The system should show points that are recorded on every payment and can be redeemed for another purchase.	Must	
FR029	The system should let the customer can use the points to pay the order.	Should	
FR030	The system should entered customer data is saved to facilitate future purchases.	Should	
FR031	A message will be sent to the user on his registered phone number or e-mail,	Should	

	thanking him for shopping from the site.		

3.4 Delivery

Code	Requirements statement	Must/should	Comments
FR032	The system should let the delivery order automatically canceled if the customer cannot be reached.	Must	
FR033	The system should let the delivery price to be determined according to the client area.	Must	
FR034	The system should let the delivery have all the details about the client(address).	Must	
FR035	When the customer orders an order, he will receive a special number on his phone to receive the order, and the same number will be with the delivery	Must	
FR036	After receiving the order, the customer can evaluate the delivery.	Should	
FR037	The system will save all previous deliveries are recorded and saved in history.	Must	
FR038	The customer can return a previously purchased product through delivery	Should	
FR039	Once the customer orders an order from the pharmacy, he will be given a code for the order.	Must	
FR040	On the site during the delivery request, a GPS is shown to the customer to track the order.	Must	

3.5 Customer

Code	Requirements statement	Must/should	Comments
FR041	The system will Record client data in the event that he is a regular customer of the pharmacy(phone number, name ,national id).	Must	
FR042	The system will record his number in the event that he was buying a medicine and he had money left, so the pharmacist would put the rest of his money on this number in the event that he came and took another treatment	should	
FR043	The system will let the pharmacists client if doesn't have	Should	

	money he can pay another time by taking his (name, phone number, national id).		
FR044	The customer has the right to find a machine to pay with the credit card	Should	
FR045	To have the right to have a fast system when paying the treatment account	Must	
FR046	to have the right to find the medicine he wants immediately	Should	
FR047	Allow customers to cancel an order within a specific time frame	Should	
FR048	That he has the right to take treatment with a percentage of drugs, but with the permission of the doctor	Must	
FR049	Calculate total price of the order including taxes and any applicable fees	Must	

3.6 Pharmacy assistance

Code	Requirements statement	Must/should	Comments
FR050	The system should Access to the website by the account that the pharmacist gave him.	Must	
FR051	The system will allow the pharmacists assistance to review all operations of buying, selling and retrieval on a daily basis.	Must	(its his authority)
FR052	The system should offer alternative medicines to the customer in case the request is not available	Must	
FR053	The system should Take customer data and keeping it in the system	Must	
FR054	The system should have sufficient experience in dealing with the system	Must	
FR055	The system should have a license to give the appropriate medicine commensurate with the diagnosis from the doctor	Should	
FR056	The system should arrange the medicine alphabetical or by expired data	Should	
FR057	The system should know what to do with the expired medicine	Should	
FR058	The system should have the data about supplies and inventory	Should	
FR059	The system have the right to deal with suppliers and do purchase request	Should	

FR060	The system should add bonus or points for old customers	Should	
FR061	The system should know the percentage of profits	Should	

3.7 Doctor(Pharmacists)

Code	Requirements statement	Must/should	Comments
FR062	The system should Ensure that medicines are used safely and correctly.	Must	
FR063	The system should Determine the appropriate medication for the patient.	Must	
FR064	The system should Coordinating with doctors regarding the optimal use of medicines	Must	
FR065	The system should Educating the patient about the side effects of the drug	Must	
FR066	The system should organizing the pharmacy and its medicines in an effective and orderly	Must	
FR067	The system should maintain records of patients' conditions and information	Must	
FR068	The system should Follow up the expiry dates of medicines continuously	Must	
FR069	The system should Follow up the expiry dates of medicines continuously	Must	
FR070	The system should Follow up on invoices for purchases and sales of medicines and medical supplies	Must	
FR071	The system should Provide some medical assistance such as giving injections and measuring temperature and blood pressure	Must	
FR072	The system should Study the results of laboratory analyzes	Must	

Nonfunctional Requirements

3.3 Security

Code			Comments
NFR001	The pharmacy system is password protected to change things on the system	Must	

NFR002	the pharmacist Manager control over the system by login to the pharmacy system	Must	
NFR003	Any user can not use the system without registered by the Administrator and all result data is protected and controlled by the Administrator.	Must	
NFR004	The system give automatically a code when a client ordered.	Must	

3.4 usability

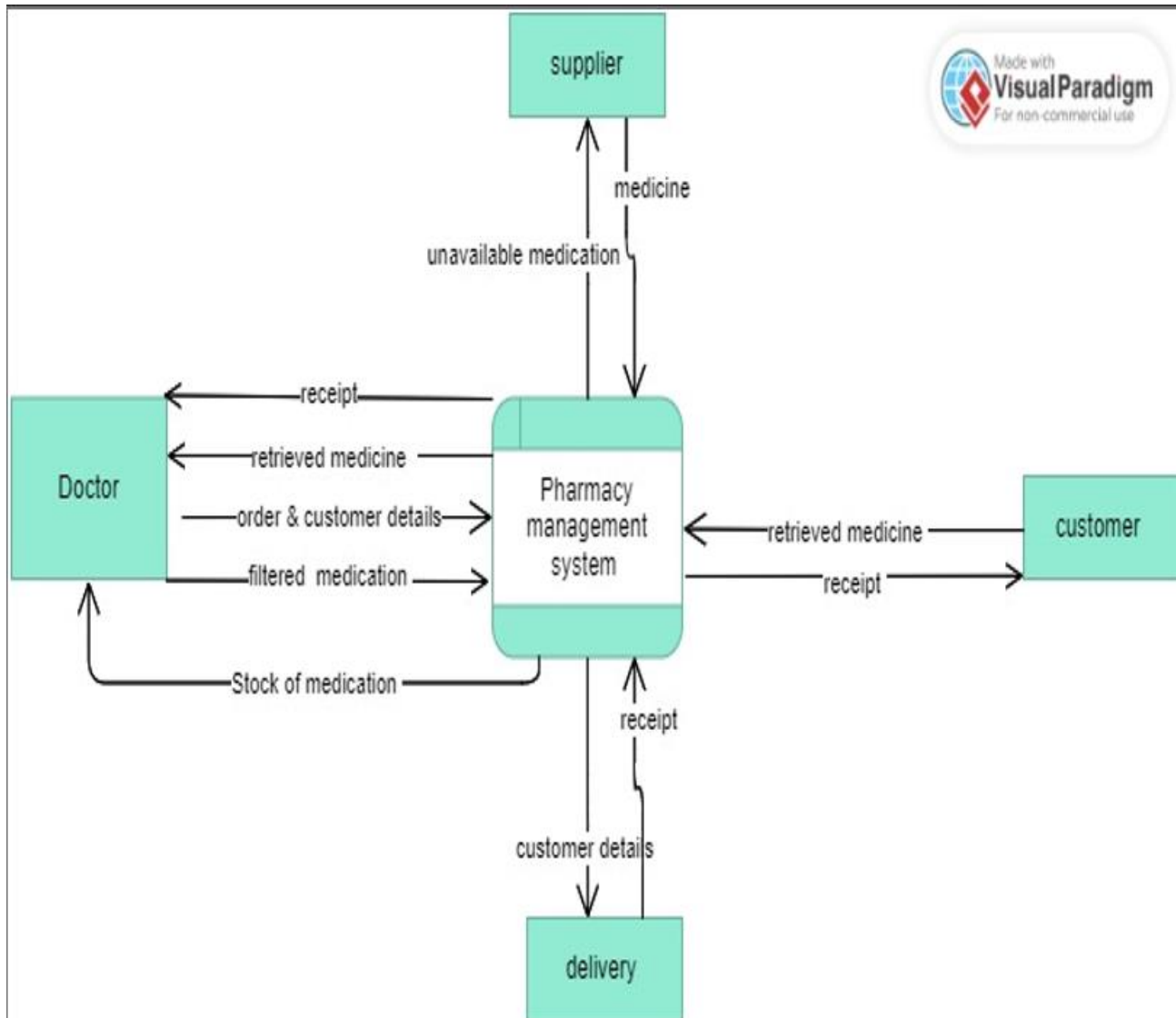| Code	Requirements statement	Must/should	Comments
NFR001	Any familiar in using windows operation can operate the system since it has user friendly user interface. Which have the instruction menu's how to use it which self -directive application then can be used the system without ambiguity.	Must	

3.5 Reliability

Code	Requirements statement	Must/should	Comments
NFR001	the system will restart in order to prevent data loose as well as safe operation within 5 seconds.	Must	

4. Diagrams
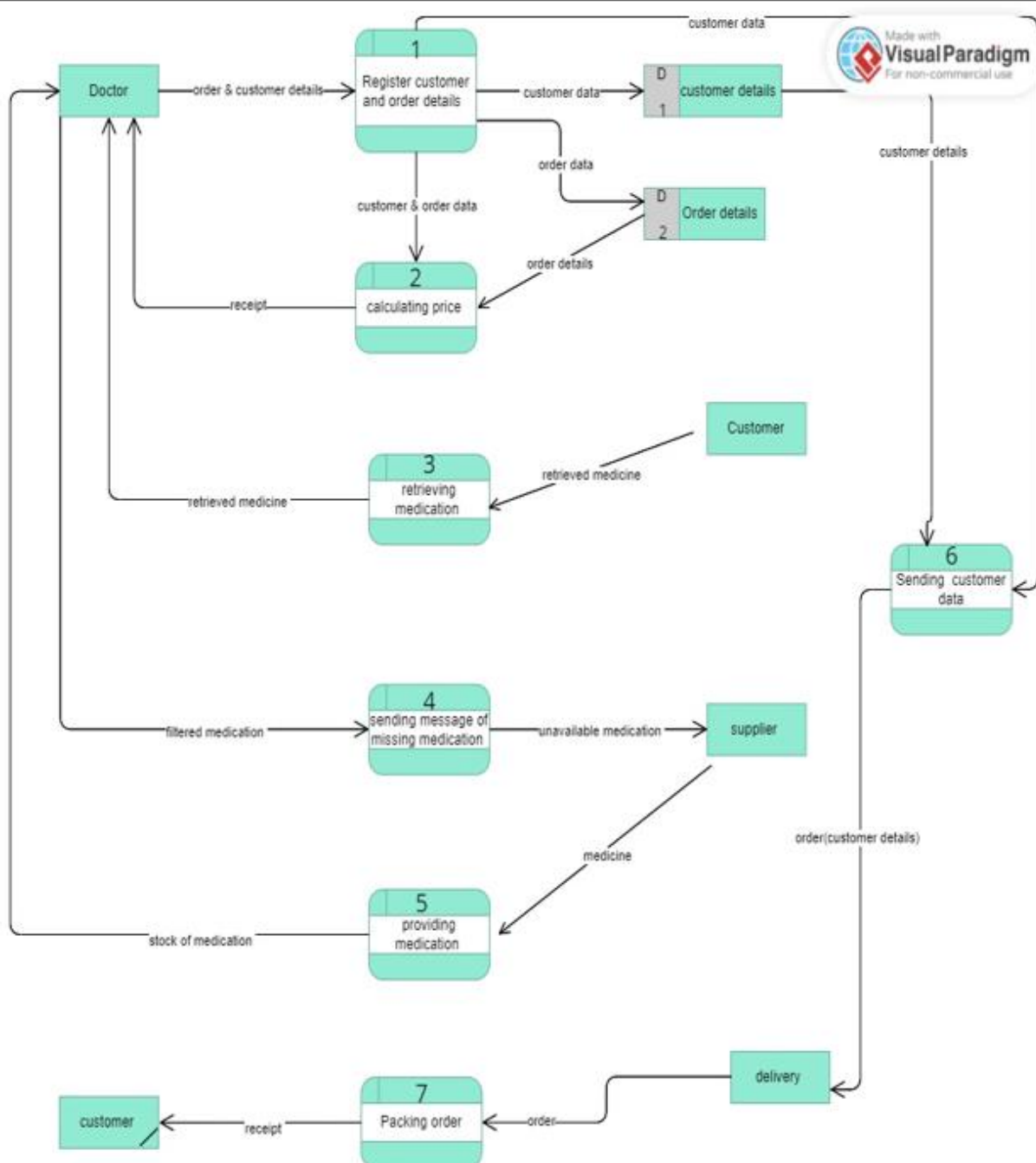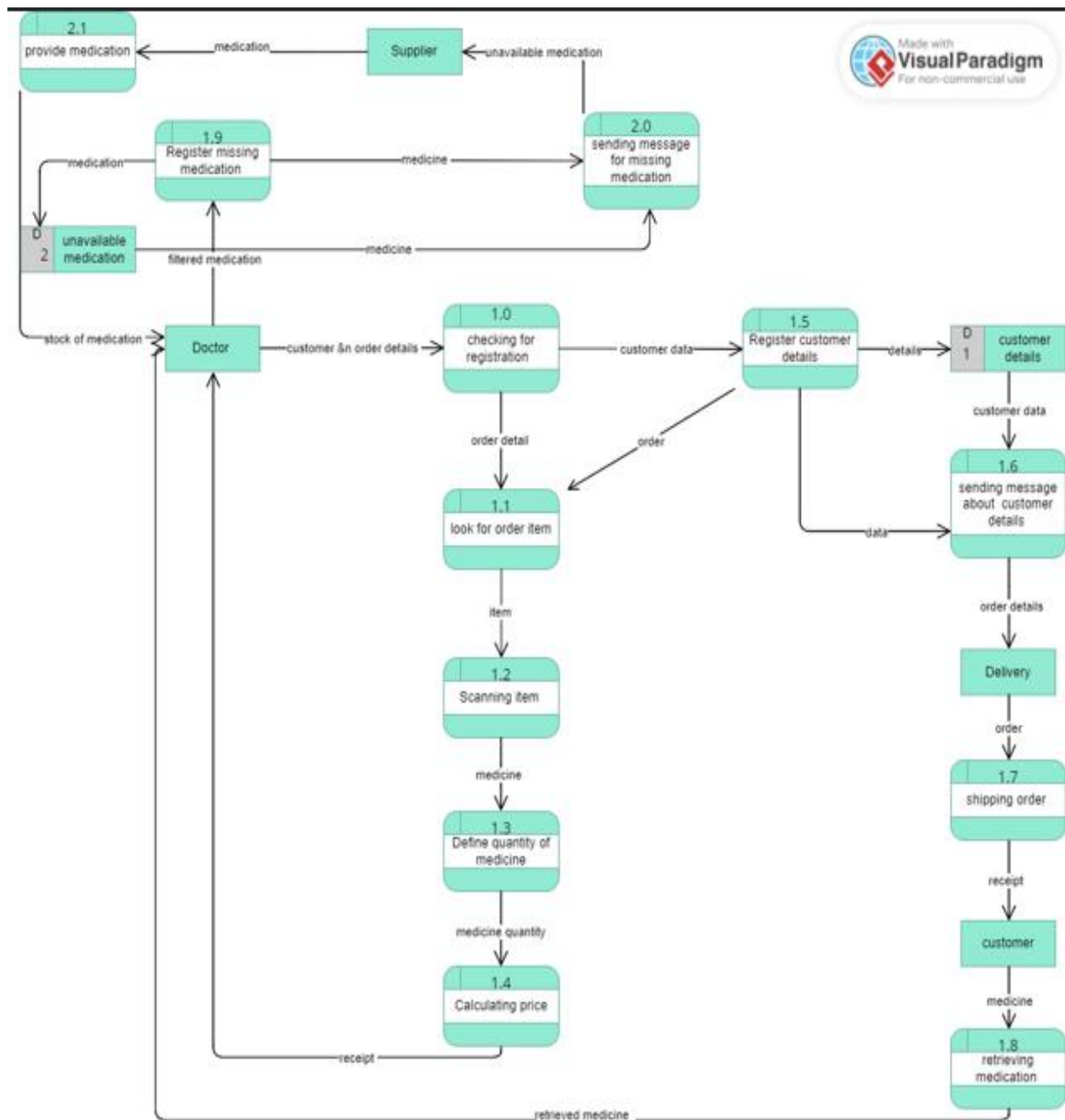
4.1 Data-Flow Diagram (DFD)
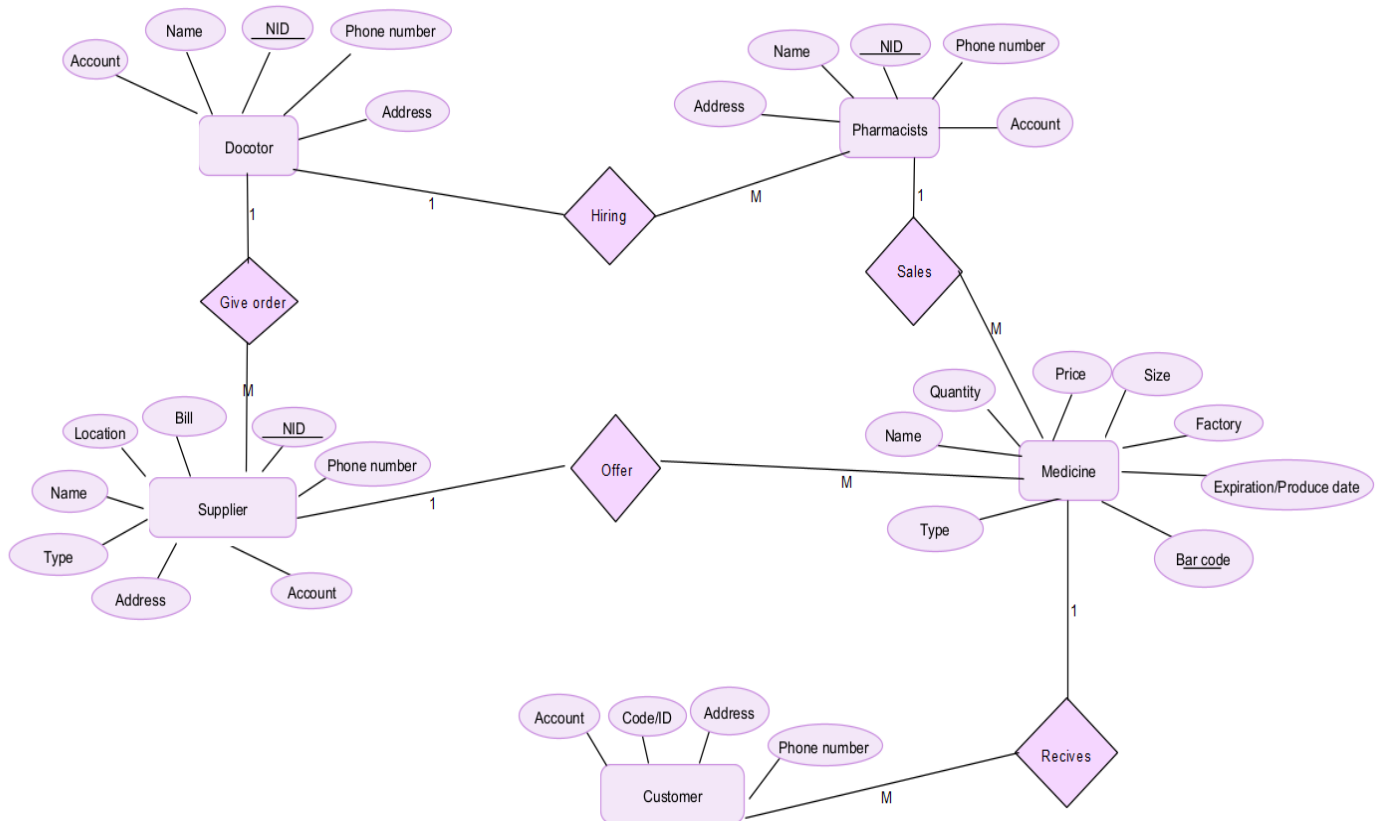
4.2 Entity-Relationship Diagram (ERD)

Pharmacy management system DFD

CONTEXT DIGRAM:

LEVEL ONE DFD:

LEVEL 2 DFD:

ER-DIGRAM

<p align="center">SQL CODE</p>

CUSTOMER ENTITY:

```sql
CREATE TABLE CUSTOMER (
    ID int NOT NULL,
    Name varchar(255) NOT NULL,
    Phone number int,
    Account varchar(255) NOT NULL,
    Address varchar(255) NOT NULL,
    PRIMARY KEY (ID)
);
```

DOCTOR ENTITY:

```sql
CREATE TABLE Doctor (
    NID int NOT NULL,
    Name varchar(255) NOT NULL,
    Phone number int,
    Account varchar(255) NOT NULL,
    Address varchar(255) NOT NULL,
    PRIMARY KEY (NID)
);
```

PHARMASICTS ENTITY:

```sql
CREATE TABLE PHARMASICTS (
    NID int NOT NULL,
    Name varchar(255) NOT NULL,
    Phone number int,
    Account varchar(255) NOT NULL,
    Address varchar(255) NOT NULL,
    PRIMARY KEY (NID)
);
```

MEDICINE ENTITY:

```sql
CREATE TABLE MEDICINE  (
    Name varchar(255) NOT NULL,
    Factory varchar(255) NOT NULL,
    Type varchar(255) NOT NULL,
    Size varchar(255) NOT NULL,
    Quantity int,
    Price int,
    Expire/Production int,
    Bar code int,
    PRIMARY KEY (Bar code)
);
```

SUPPLIER ENTITY:

```
CREATE TABLE Supplier (
    NID int NOT NULL,
    Name varchar(255) NOT NULL,
    Type varchar(255) NOT NULL,
    Address varchar(255) NOT NULL,
    Location varchar(255) NOT NULL,
    Bill int  NOT NULL,
    Account varchar(255) NOT NULL,
    Phone Number int NOT NULL,
    PRIMARY KEY (NID)
);
```

Thank you!