# Software Requirements Specification

## For

# PHARMACY MANAGEMENT SYSTEM

**Version 1.0 approved**

**Prepared by**

**PRANJAL JOSHI 17BCE0317**
**FARDEEN SHEIKH 17BCE0796**
**SHREYA JAIN 17BCE0231**

**VIT UNIVERSITY**

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# Table of Contents



## Revision History

| Name | Date | Reason For Changes | Version |
|---|---|---|---|
| | | | |
| | | | |

# 1. Introduction

## 1.1 Purpose

In this era of growing diseases there has been a surge in medical companies and medicines in general. Due to this it is very difficult for the pharmacy units to keep a track of medicines and in turn customers and suppliers. There is huge investment of time, money and efforts. Also there is a huge waste of resources like paper. So we are required to build a software for the sake ensuring effective data saving and manipulation. This software is named Pharmacy Management System. The system should deal with the maintenance of drugs and consumables in the pharmacy unit.

We have built a Pharmacy Management System which is a robust and integrated technology. It is a system that 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 for the patient.

The Pharmacy Management System is built for the sake of ensuring effective data saving and manipulation. This refers that our software highly minimizes the time and resources of the Pharmacy unit.

## 1.2 Document Conventions

All the main topics that are the headings are bold with size 14, which are represented using whole numbers. Subtopics and bullets are used to below the headings in the decimal format of the whole number.

## 1.3 Intended Audience and Reading Suggestions

*The SRS document is intended for:*

- *Administrator, who has the permission to access the user accounts and have basic knowledge about the program being developed*
- *Users*
- *Developers, who are intended to develop the software modules and for further updating.*
- *Testers, who ensures the proper functionality of the developed software.*

## 1.4 Product Scope

- AIM: To design and develop a system which ensures effective data saving and manipulation related to pharmacy.
- OBJECTIVE: To design and develop an interactive, easily maintainable system to store, retrieve and alter data for a pharmaceutical unit.
- APPLICATION: This system is to be used in any Pharmaceutical retail shop.

### 1.5 References

https://www.pharman.co.uk/

https://www.octalsoftware.com/blog/pharmacy-management-software-development

*https://www.cdac.in/index.aspx?id=hi_his_Sushrut_Register_Pharmacy*

## 2. Overall Description

### 2.1 Product Perspective

The Pharmacy management system is based on computer technology that gives services to a Pharmacy Unit. Every user (Pharmacy salesman, Manager, Admin) has a unique master key and it will uniquely open the database for each user. Admin provides different username and password for each user. Designed for minimizing time wasting, saving resources, easy data access of the medicine, security on data input and data access by removing manual-based system.

### 2.2 Product Functions

The software will be providing the following tabs:

- User Login.
- Salesman login:
    - Sale
    - Sale Return

- Manager Login:
    - Add Medicine
    - Sale
    - Sale Return
    - Supplier
    - Delete Medicine
    - Stock
    - Customer
    - Sale Data
    - Sales Return Data
    - Supplier Info

- Admin Login:
    - Add Medicine
    - Sale
    - Sale Return
    - Supplier
    - Delete Medicine
    - Stock
    - Customer
    - Sale Data

    - Sales Return Data
    - Supplier Info
    - Add Staff
    - Delete Staff
    - Staff Info
- Logout.

## 2.3 User Classes and Characteristics

The software will be providing the following tabs:

- User Login.
- Salesman login: Can only Sale.
    - Sale
    - Sale Return

- Manager Login: Has all privileges of Admin except for Staff Manipulation.
    - Add Medicine
    - Sale
    - Sale Return
    - Supplier
    - Delete Medicine
    - Stock
    - Customer
    - Sale Data
    - Sales Return Data
    - Supplier Info

- Admin Login: The administrator of the company is allowed to access all the services in the system.
  The primary function of the administrator is to: Add/Delete/Update Information
    - Add Medicine
    - Sale
    - Sale Return
    - Supplier
    - Delete Medicine
    - Stock
    - Customer
    - Sale Data
    - Sales Return Data
    - Supplier Info
    - Add Staff
    - Delete Staff
    - Staff Info

## 2.4 Operating Environment

Front end: HTML, CSS, Javascript, Bootstrap.
Backend: MySQL.
Framework: PHP (Server: Apache)
Brackets.

Works on all OS's from Windows 1998.

## 2.5 Design and Implementation Constraints

Different factors are responsible for the restriction of the implementation constraints. These factors include security and reliability, operating environment and other policies that may have impact on the design. A SRS document must be able to identify all such constraints: -

Security: It is the most significant of all other constraints. They put constraints while accessing through the use of password and other cryptographic techniques by maintain a log of activities in the system.

Reliability: The reliability requirements are very important for critical applications. Besides the amount of fault tolerance, generally make the system more complex. Hence the recovery requirement plays an integral role.

Besides these there may be other constraints where the software may have to run on specific OS.

It would be accessed 24/7 accept for maintenance days.

## 2.6 User Documentation

The user will be provided with:

- The video tutorial explaining the different functionalities of the website and how to access it.
- A PDF manual describing the same.

## 2.7 Assumptions and Dependencies

- Basic knowledge of the computers should be known by the users and we also assure that software user manual and training documentation will be given to the users.
- Website will remain up to date.
- Authenticated user access will only be provided

# 3. External Interface Requirements

## 3.1 User Interfaces

*Refer to Appendix C.*

## 3.2 Hardware Interfaces

Program Install Support: Install and Uninstall

System Requirements: No special requirements.
OS Support: Win7 x64, WinXP, WinVista, Win7 x32, Win8 x32, Win8 x64, Win10 x32, Win10 x64, Windows 8, Windows 10,

## 3.3 Software Interfaces

Any window-based operating system with DOS support are primary requirements for software development. Windows XP, FrontPage and dumps are required. The systems must be connected via LAN and connection to internet is optional. The UI of this system includes a Homepage which will redirect the user to other pages.

Front End Client: Admin, Manager, Salesman.

Web Server: XAMPP(Apache).

Data Base Server: MySQL.

Back End: Admin controlled.

## 3.4 Communications Interfaces

The communication protocol used in this web application is HTTP. The application will be working on a localhost of any system using XAMPP server. It works on an application-level protocol for distributed, collaborative, hypermedia information systems. HTTP is generic and stateless protocol which can be used for other purposes as well using extensions of its request methods, error codes, and headers.

# 4. System Features

## 4.1 login

### 4.1.1 Description and Priority

In this page the user enters the username, password and selects his designation. After the login is done the system redirects to home page where the user can select other functionalities.

### 4.1.2 Stimulus/Response Sequences

The user can immediately access the software once his username and password are validated

### 4.1.3 Functional Requirements

The functional requirements include the proper connection with the database and proper redirecting of the pages. Languages like PHP, HTML and CSS are required to build this page and once done, we can link it with other pages. The system shows an error if you try to signup with an existing username.

## 4.2 Forms

### 4.1.1 Description and Priority

After login the user is directed to his particular login. Here the user has various tabs as mentioned in 2.2. The user can work on the required tabs and logout as and when required. Working on tabs is just form filling.

### 4.1.2 Stimulus/Response Sequences

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### 4.1.3 Functional Requirements

The functional requirements include the proper connection with the database and proper redirecting of the pages. Languages like PHP, HTML and CSS are required to build this page and once done, we can link it with other pages. The system shows an error if you try to signup with an existing username.

# 5. Other Non-functional Requirements

## 5.1 Performance Requirements

The pharmacy management system operates its function in small amount of time which is less than two seconds and can be accessed by one user at a time or concurrently. To access the user must first login to the system which must have the pharmacy system privileged and also the system can store data up to 40 GB data. When the system may be busy due to malfunction operation it may wait up to one-minute other ways the pharmacy system restarts.

## 5.2 Safety Requirements

To preserve data, and assure no loss of it, databases are stored with utmost caution. From the user end, if there's any loss of credentials, backup email or mobile authentication is enabled to reset any such credentials.

## 5.3 Security Requirements

Only Login authentication.

## 5.4 Software Quality Attributes

Usability: 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.

Reliability: The pharmacy system is available based on the user needs, can work properly, and do transactions efficiently including safe data management of the pharmacy. The pharmacy system is password protected to change things on the system. Here the pharmacist manager controls over the system by login to the pharmacy system. Any user can't use the system. As result data is protected and controlled by only the administrator.

Supportability: The code and supporting modules of the system will be well documented and easy to understand

Maintainability: A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the project will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.

# 6. Other Requirements

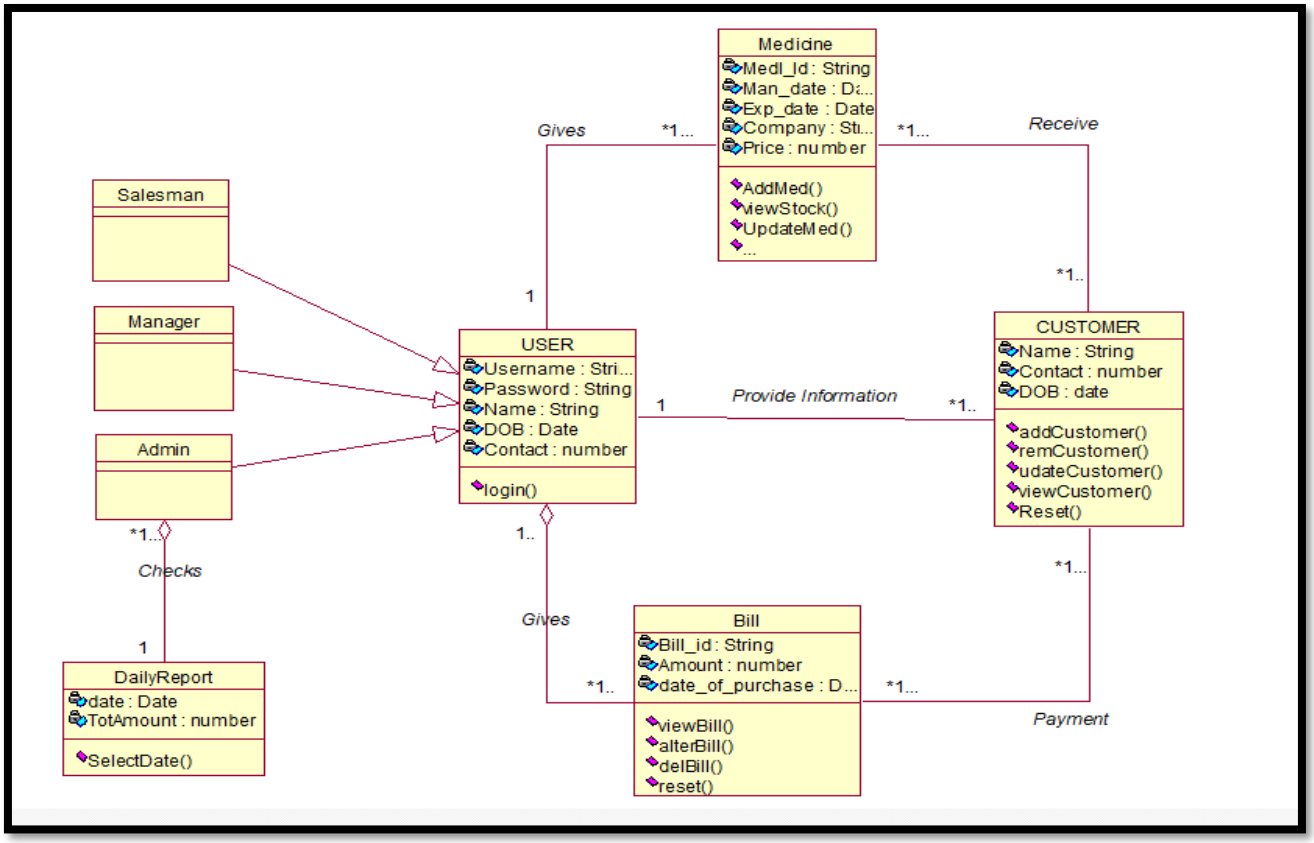
- Data validation for each entry that is entered in the database.
- Any unauthorised access to the database (for modifying purpose) is not possible due to password protection.
- 24x7 availability.
- Updating of software according to the suggestions provided by the user.
-

## Appendix A: Glossary

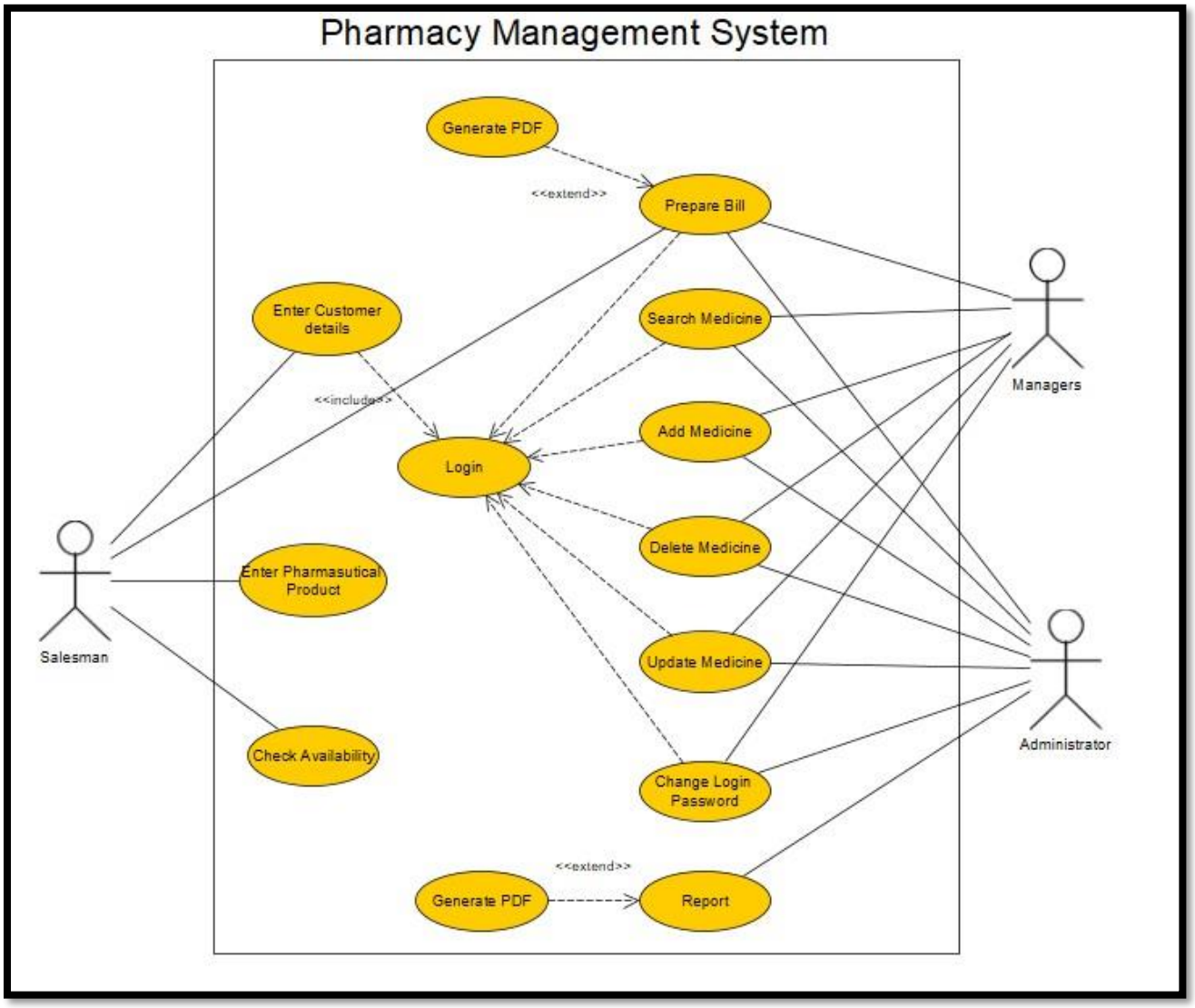
CLASS DIAGRAM, USE CASE DIAGRAM.

## Appendix B: Analysis Models

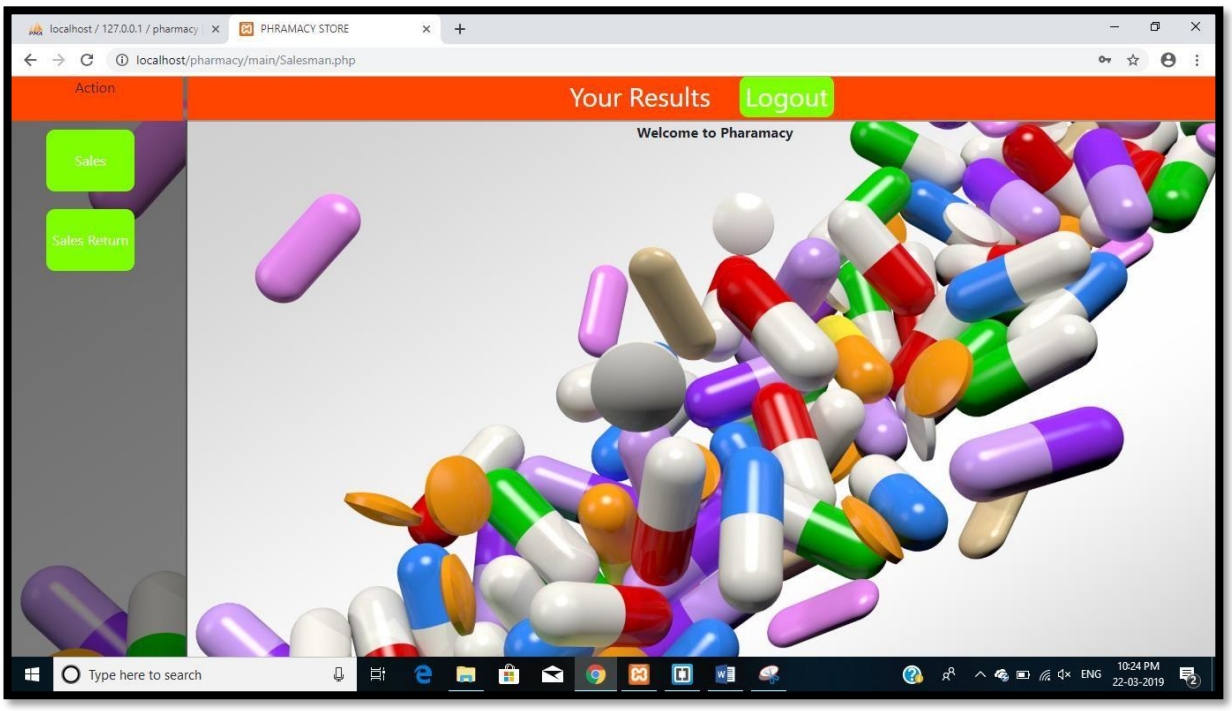
CLASS DIAGRAM

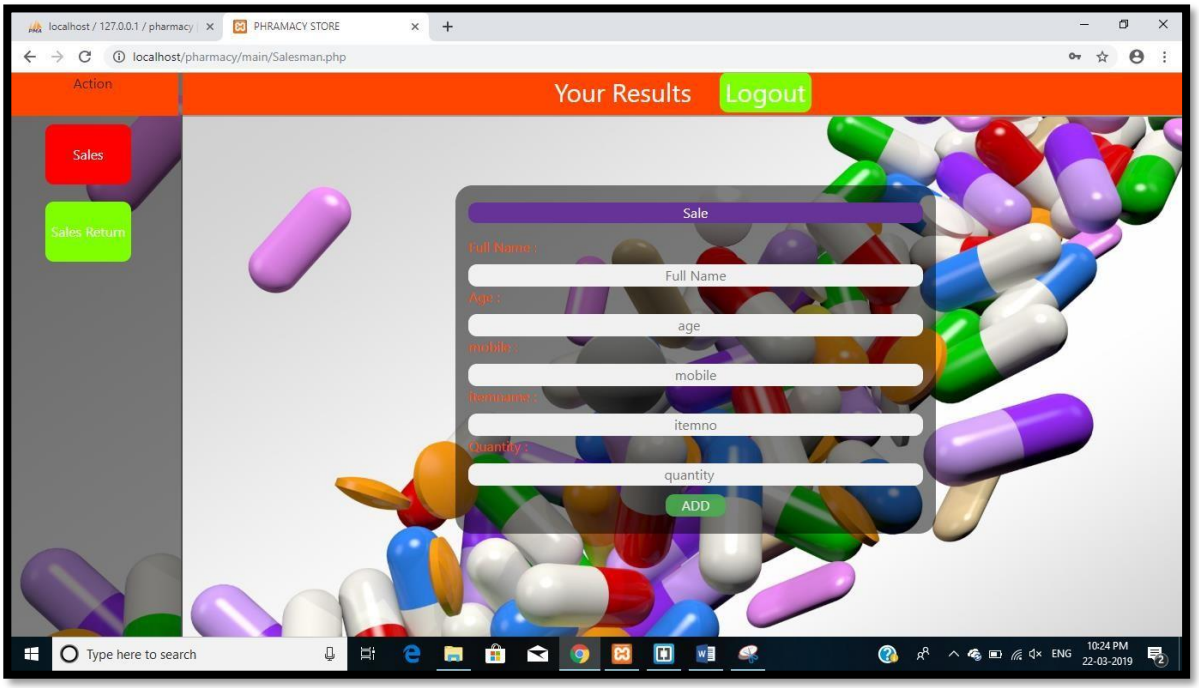


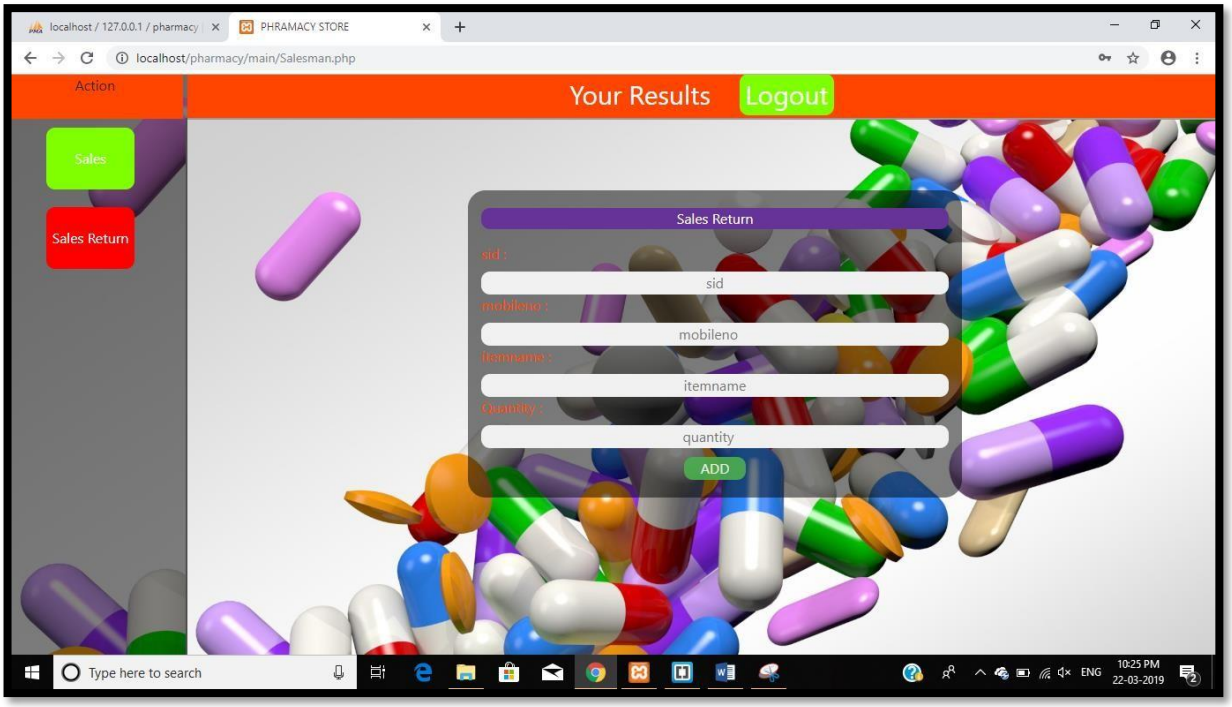

USE CASE DIAGRAM

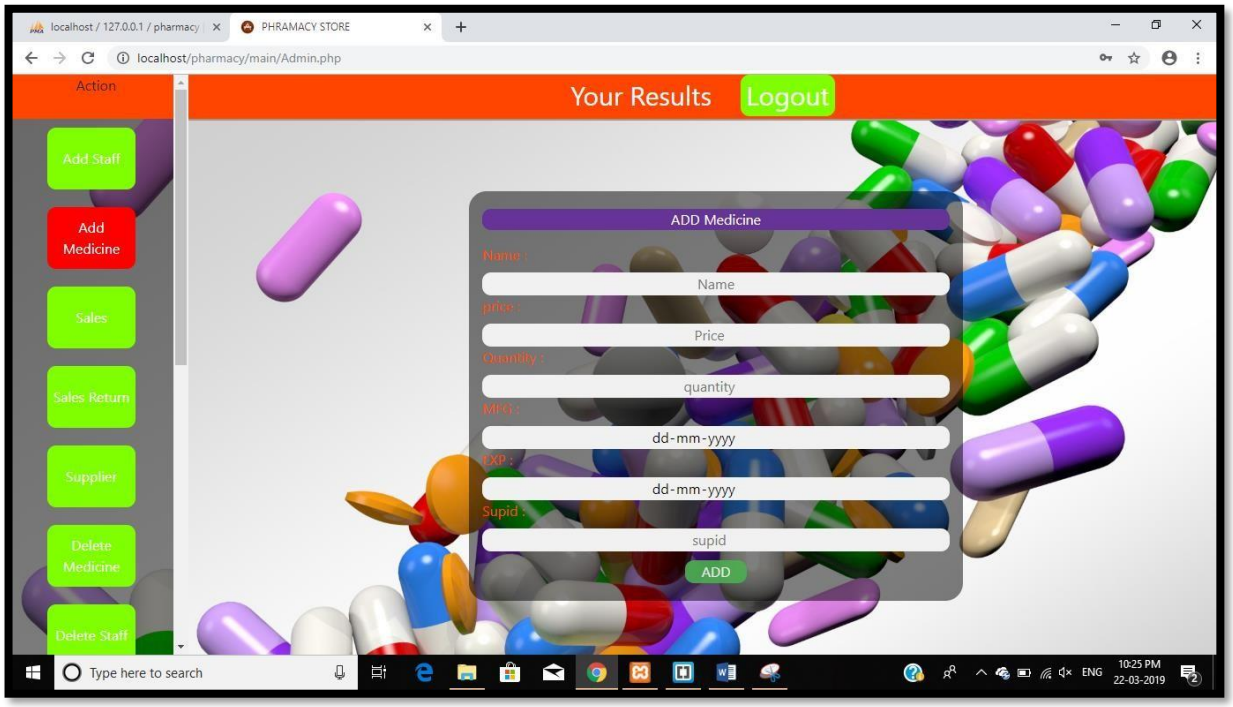

Pharmacy Management System
Generate PDF
<<extend>>
Prepare Bill
Enter Customer details
<<include>>
Search Medicine
Add Medicine
Login
Delete Medicine
Enter Pharmasutical Product
Update Medicine
Check Availability
Change Login Password
<<extend>>
Generate PDF
Report
Salesman
Managers
Administrator

# Appendix C: To Be Determined List




localhost / 127.0.0.1 / pharmacy
PHRAMACY STORE
localhost/pharmacy/main/Salesman.php
Action
Your Results
Logout
Sales
Sales Return
Sales Return
sid :
sid
mobileno :
mobileno
itemname :
itemname
Quantity :
quantity
ADD
Type here to search
ENG
10:25 PM
22-03-2019


localhost / 127.0.0.1 / pharmacy
PHRAMACY STORE
localhost/pharmacy/main/Admin.php
Action
Your Results
Logout
Add Staff
Add Medicine
Sales
Sales Return
Supplier
Delete Medicine
Delete Staff
ADD Medicine
Name :
Name
price :
Price
Quantity :
quantity
MFG :
dd-mm-yyyy
EXP :
dd-mm-yyyy
Supid :
supid
ADD
Type here to search
ENG
10:25 PM
22-03-2019

# Pharmacy Management System

Team Number – 5

PRANJAL JOSHI – 17BCE0317
FARDEEN SHAIKH – 17BCE0796
SHREYA JAIN – 17BCE0231

# Problem Introduction

- In this era of growing diseases there has been a surge in medical companies and medicines in general. Due to this it is very difficult for the pharmacy units to keep a track of medicines and in turn customers and suppliers. There is huge investment of time, money and efforts. Also there is a huge waste of resources like paper. So we are required to build a software for the sake ensuring effective data saving and manipulation. This software is named Pharmacy Management System. The system should deal with the maintenance of drugs and consumables in the pharmacy unit.
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# Scope Statement

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- OBJECTIVE: To design and develop an interactive, easily maintainable system to store, retrieve and alter data for a pharmaceutical unit.
- APPLICATION: This system is to be used in any Pharmaceutical retail shop.

## Process Model

**WATER-FALL MODEL**

- Requirements are predefined and precisely documented.
- Since this software will work on a localized network, therefore hacking is not an issue.

## Stake Holders

- PHARMACY SALESMEN.
- PHARMACY MANAGER.
- PHARMACY ADMIN.

## Requirements w.r.t Stake Holders

- **PHARMACY SALESMEN**:
- Should have access to sales page where salesmen will take customer information and medicine order.
- Generate receipt.

- **PHARMACY MANAGER**:
- Should have access and permission to medicine stocks, customer details & Supplier Details

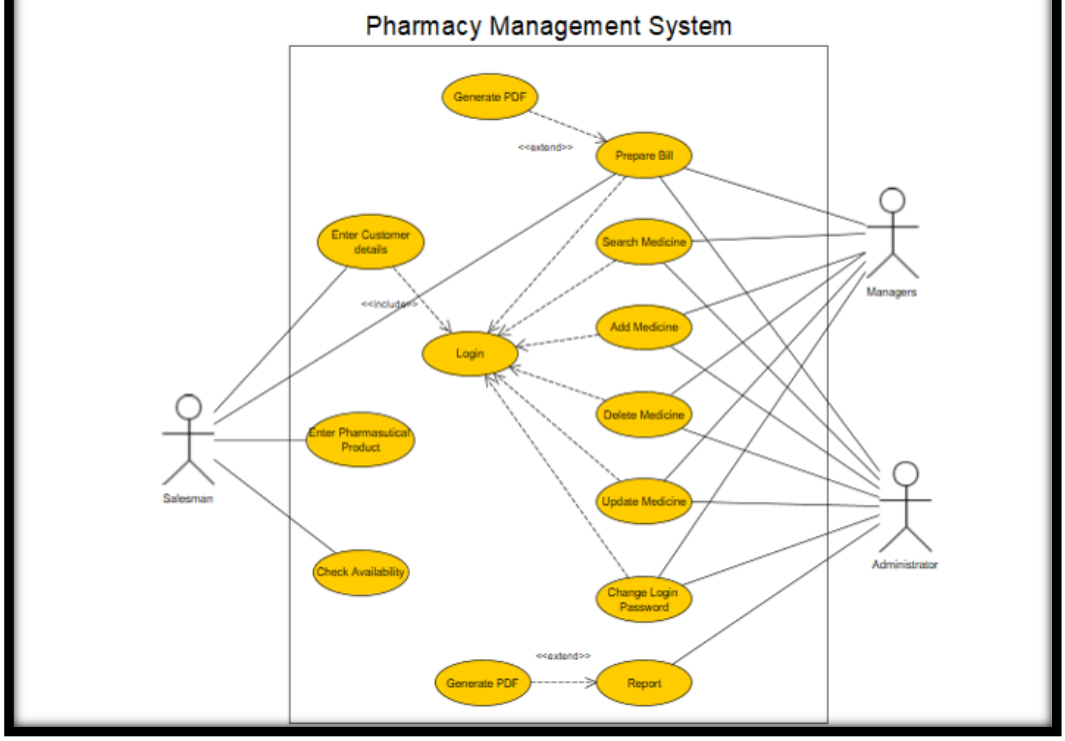
- **PHARMACY ADMIN**:
- Should have access and permission to manipulate staff records, medicine stocks, customer details & Supplier Details

## Viewpoint

FUNTIONAL VIEWPOINT -

- Describes the system's runtime functional elements and their responsibilities, interfaces, and primary interactions.
- Visible impact on stakeholders.

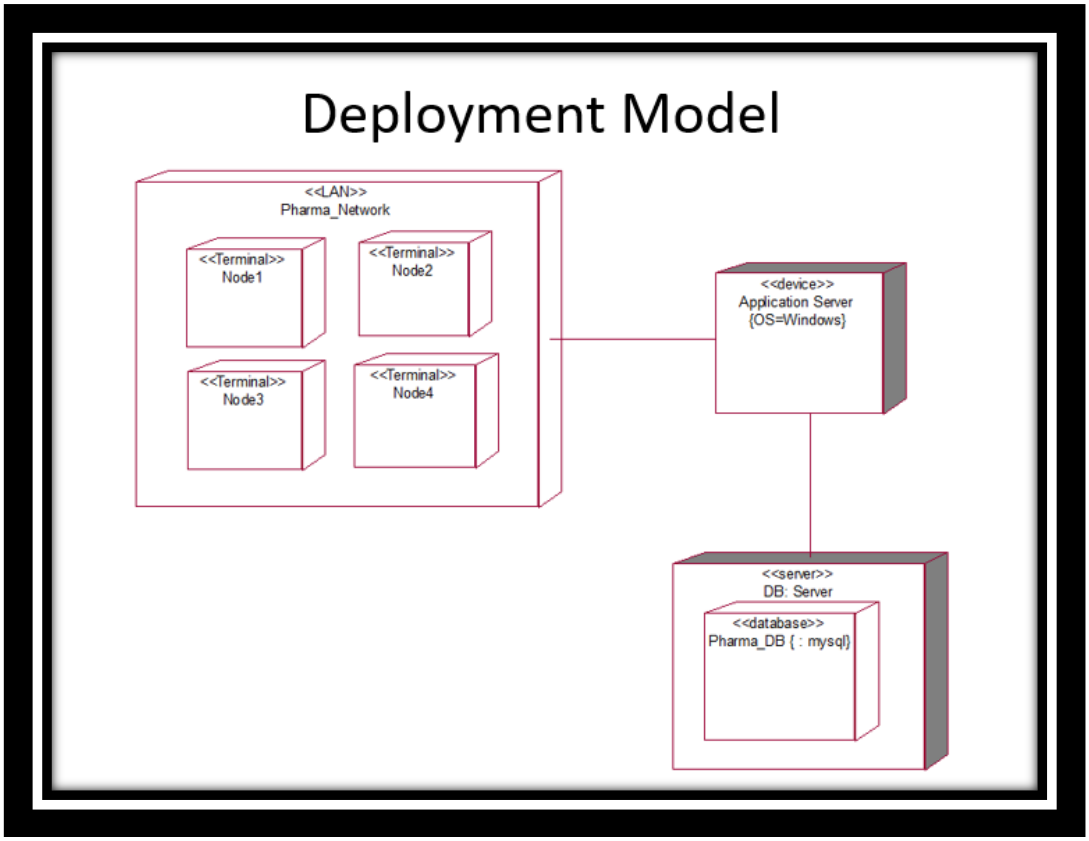
# System Model




# Architecture

DATABASE CENTRIC ARCHITECTURE –

- Software architectures in which databases play a crucial role.
- Using a standard, general-purpose relational database management system instead of a customized in-memory or file-based data structures and access methods.
- Using a shared database as the basis for communicating between parallel processes in distributed computing applications as opposed to direct inter process direct communication via message passing functions and message oriented middleware.


Deployment Model
<<LAN>>
Pharma_Network
<<Terminal>>
Node1
<<Terminal>>
Node2
<<Terminal>>
Node3
<<Terminal>>
Node4
<<device>>
Application Server
{OS=Windows}
<<server>>
DB: Server
<<database>>
Pharma_DB { : mysql}

# Test Cases

| TEST CASE ID | TEST DESCRIPTION | TEST PREREQUISITES | TEST INPUTS | TEST RESULTS |
|---|---|---|---|---|
| 1. | FULL NAME (Login page) | Should include only characters and no numeric values | Abcde1 | Error |
| 2. | FULL NAME (Login page) | Should include only characters and no numeric values | bacdef | Accepted |
| 3. | FULL NAME (Login page) | Blank spaces will be allowed | Abc def | Accepted |
| 4. | PASSWORD (Login Page) | Should contain atleast one charector | Wxyz | Accepted |
| 5. | PASSWORD (Login Page) | Should contain atleast one charector | 'null' | Error |
| 6. | WHO ARE YOU (Login Page) | Atleast one of the options must be selected | Admin | Accepted |
| 7. | WHO ARE YOU (Login Page) | Atleast one of the options must be selected | 'null' | Error |
| 8. | LOGIN BUTTON (Login Page) | Click once to login | Single click | Accepted |

# Sample Screenshot (s)