

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

PROJECT PROPOSAL (SYNOPSIS)

BCSP-064

ON

HOSPITAL AUTOMATION

By

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UNDER GUIDANCE

OF

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degree of  
Bachelor  
Of  
Computer Applications



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# 1.Title of the Project

## *HOSPITAL\_AUTOMATION*



## 2.Introduction and objective of project

### 2.1 INTRODUCTION

Nowadays most of the medical organizations try to provide more reliable and accurate services in their field, offering services to the patient with all the available choices in their interest. It may also provide various tests for illnesses i.e. ultrasound, X-ray or other imaging scanning. Every medical field computerizes its activities to provide better services to patients. The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable report can be stored for future references with easy access.

This project HOSPITAL AUTOMATION system enables to manage and record the activities of whole HOSPITAL system of a leading multi-facility hospital for patient record keeping with their diagnostic findings hence letting the staff to concentrate on their Diagnostic skills only.

This HOSPITAL AUTOMATION also helps in generating the reports for all the managerial purposes as per their requirements. These summarized reports can then be referred for the later use.

For security point of view the access to **HOSPITAL AUTOMATION** is password protected. Every user name is associated with the password that can be easily changed by them. Different privileges and rights are given to different users depending upon their designation and authorization.

Thus, some of the main features provided in the **HOSPITAL AUTOMATION**, abnormal value indicator, and MIS reports to enhance performance and project productivity.

## 2.2 OBJECTIVES OF THE PROJECT

The main objectives behind the development of this project are as follows:

- ✓ It is more working there field.
- ✓ To utilize human resource of the institution in an efficient manner by

Increasing their productivity through automation.

- ✓ The system generates a number of types of reports that can be then used for various managerial and administrative purposes.

It also gives a brief picture of the institution's progress.

Helps in keeping track of all the activities of the diagnostic centre like login/logout time, referring doctors addresses, security related activities, etc. and thus helps in finding out the performance level of the centre.

Thus, there is a number of objectives behind developing the "HOSPITAL AUTOMATION" and it reduces a lot of burden of the doctor simplifying the tasks of reporting etc.

### 3. PROJECT CATEGORY

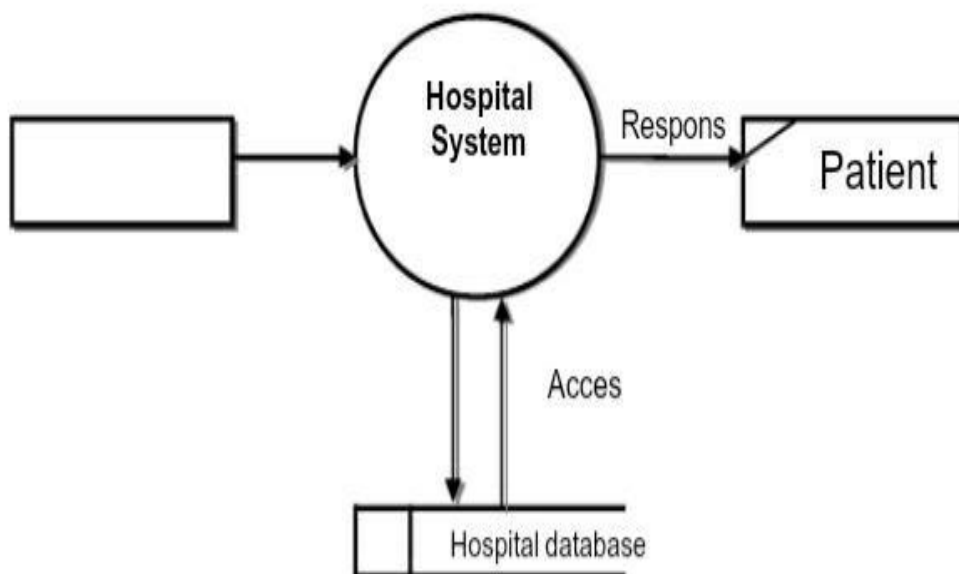
Relational Data Base Management System (RDBMS).

The proposed system comes under RDBMS category, as

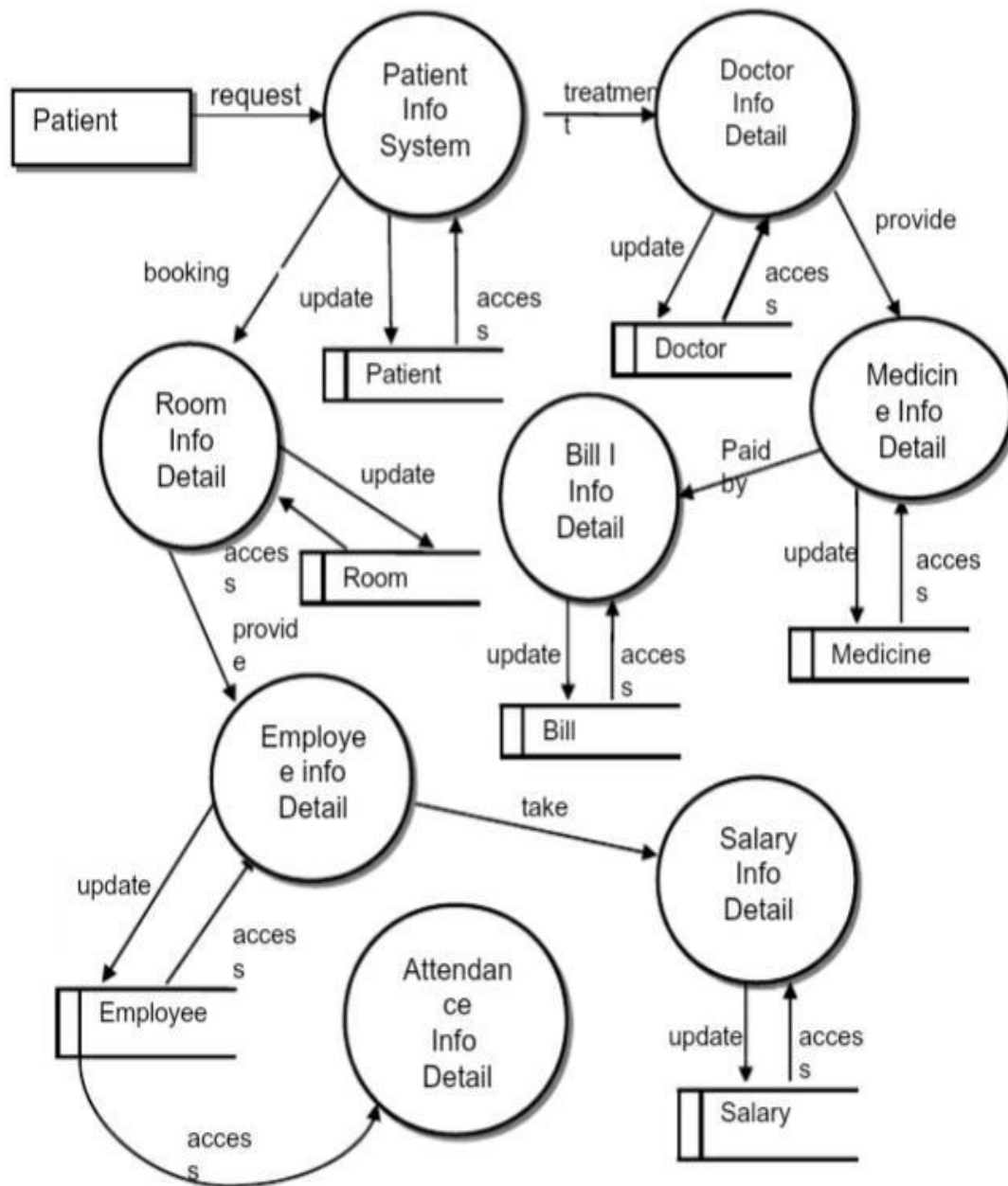
There is need to store and manipulate a huge amount of Data related to doctors and patients as per various queries.

# 4.ANALYSIS

## Data Flow Diagram (0 Level)

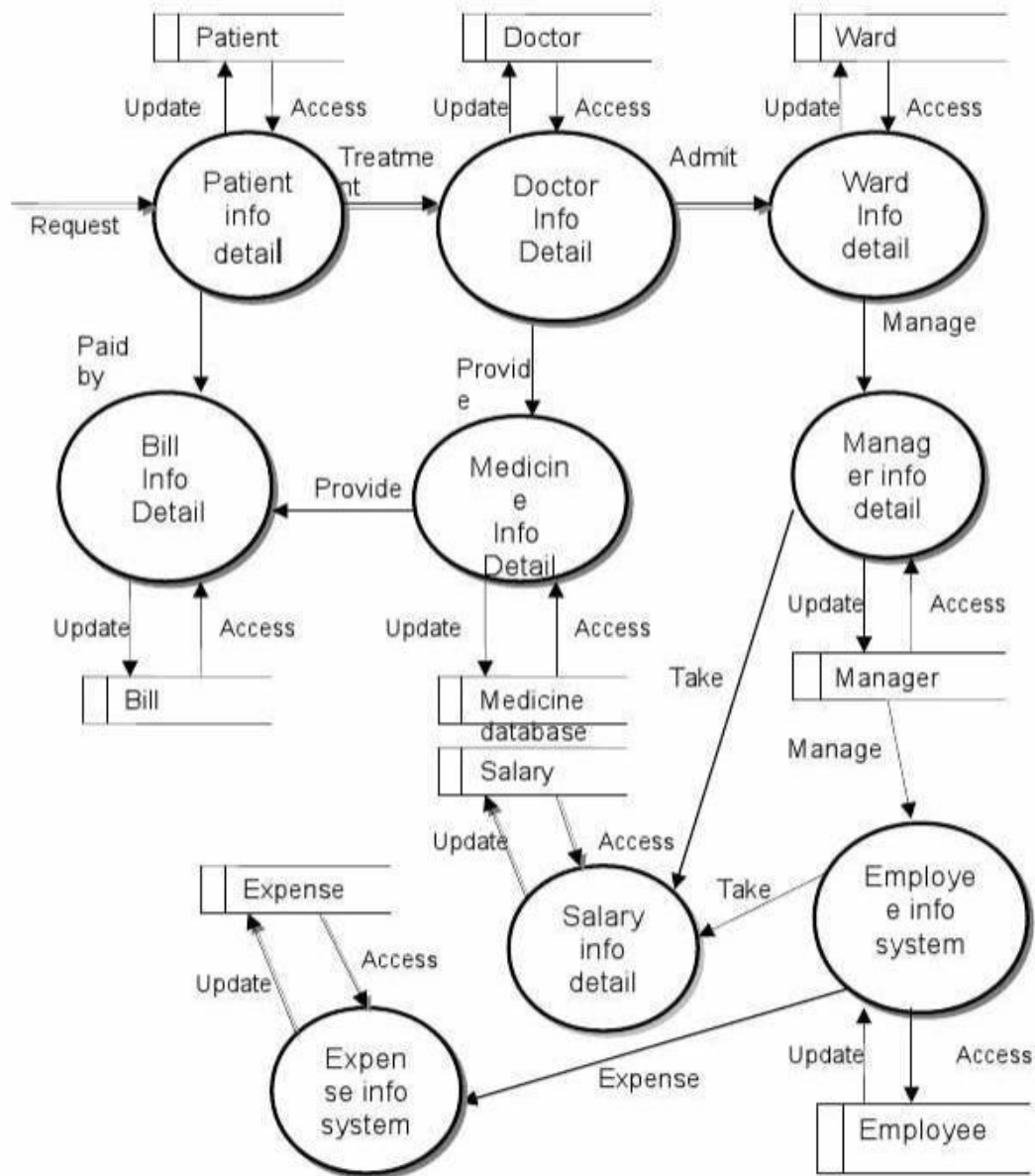


# First level DFD

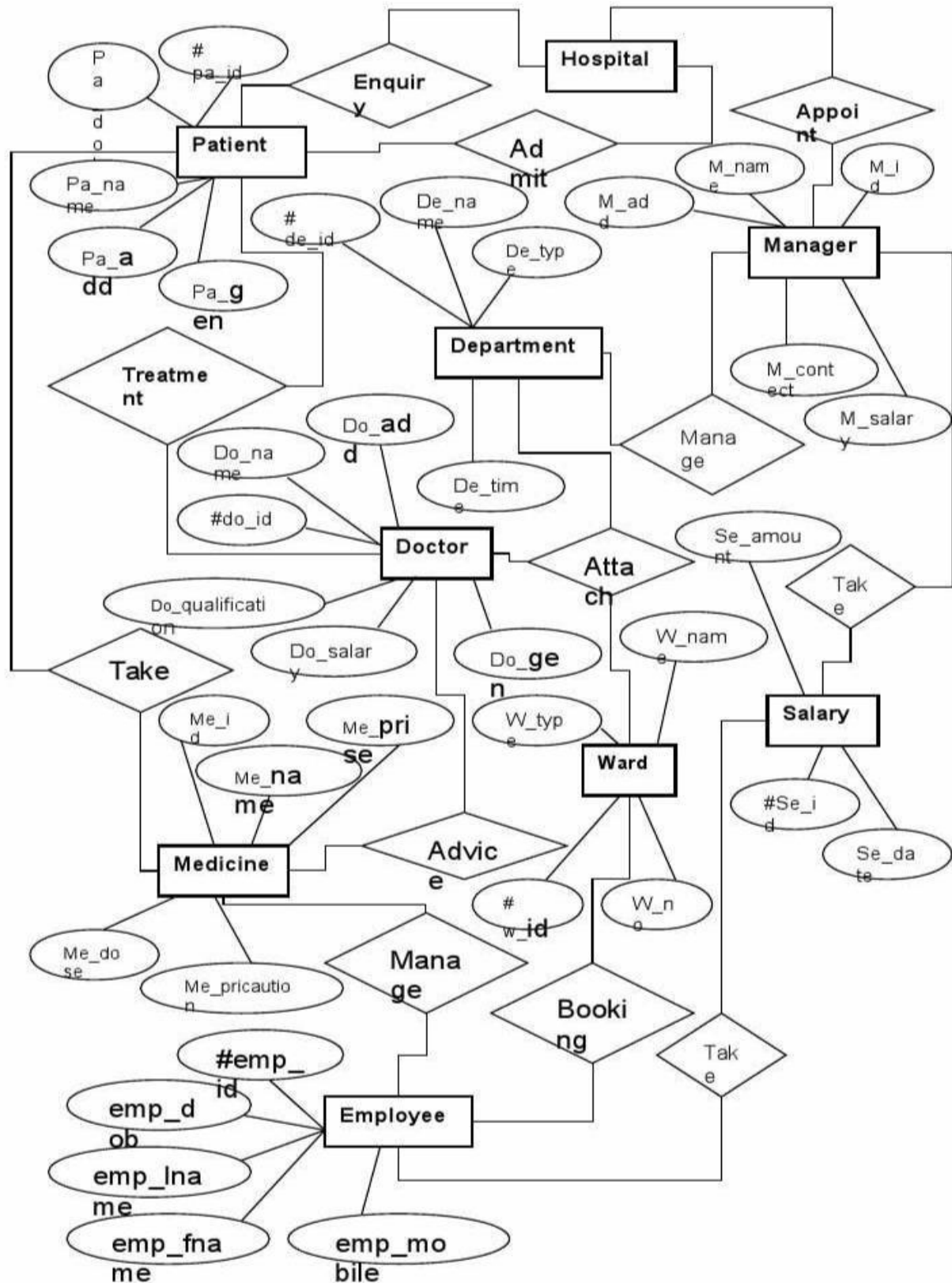




# Second level DFD



# E-R Diagram



## 5.A COMPLETE STRUCTURE

### TECHNOLOGIES USED IN PROJECT

**HTML** is a initialism of Hypertext Markup Language, is the predominant markup language for web pages. It provides a means to describe the structure of text-based information in a document — by denoting certain text as headings, paragraphs, lists, and so on — and to supplement that text with interactive forms, embedded images, and other objects. HTML is written in the form of labels (known as tags), surrounded by angle brackets. HTML can also describe, to some degree, the appearance and semantics of a document, and can include embedded scripting language code which can affect the behavior of web browsers and other HTML processors.

**CSS** Stands for "Cascading Style Sheet." Cascading style sheets are used to format the layout of [Web pages](#). They can be used to define text styles, table sizes, and other aspects of Web pages that previously could only be defined in a page's [HTML](#).

CSS helps Web developers create a uniform look across several pages of a Web site. Instead of defining the style of each table and each block of text within a page's HTML, commonly used styles need to be defined only once in a CSS document. Once the style is defined in cascading style sheet, it can be used by any page that references the CSS file. Plus, CSS makes it easy to change styles across several pages at once.

#### **JavaScript**

JavaScript is a script-based programming language that was developed by Netscape Communication Corporation. JavaScript was originally called Live Script and renamed as JavaScript to indicate its relationship with Java. JavaScript supports the development of both client and server components of Web-based applications. On the

client side, it can be used to write programs that are executed by a Web browser within the context of a Web page. On the

server side, it can be used to write Web server programs that can process information submitted by a Web browser and then update the browser's display accordingly.

**Bootstrap** is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

**jQuery** is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The jQuery library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX
- Utilities

**PHP** is a recursive acronym for "**PHP**: Hypertext Preprocessor". **PHP** is a server side scripting language that is embedded in HTML. It is **used** to manage dynamic content, databases, session tracking, even build entire e-commerce sites.

**MySQL** is an Oracle-backed open source relational database management system ([RDBMS](#)) based on Structured Query Language ([SQL](#)). MySQL runs on virtually all platforms, including [Linux](#), [Windows](#) etc.

Although it can be used in a wide range of applications, MySQL is most often associated with web applications and online publishing. MySQL is an important component of an open source enterprise stack called [LAMP](#). LAMP is a web development platform that uses Linux as the operating system, [Apache](#) as the web server, MySQL as the relational database management system and [PHP](#) as the object-oriented scripting language.

## Problem Statement

The shopkeepers of medical store in question is at present manually operated. There is lack of coordination among various related processes of the shop that should be checked out. Besides, there exist various problems in data handling such as a large number of registers to be maintained separately, loss of data due to inefficient entry, data redundancy and complex manipulation of data in searching particulars entry.

## Requirement Analysis

The organization requires computerizing its Medical Stores to fully automate its corresponding activities. The Requirements from the proposed software are as follows:

- a) Medicines' information handling
- b) Printing of receipt.
- c) Printing of Reports for Top Middle Level Management.
- d) Printing of Sale/Purchase related Reports.
- e) Searching of supplier information.

# Input/Output designing

The input/output screen designing is an important part of the complete system design. This basically deals with providing the best User interface to the user.

All the input/output user-friendly screens in this Computerized HOSPITAL have been developed using GUI features of JSP. I have tried to make the Input/output screens very user friendly and on the whole now each and every form is very interactive. Besides, the system is still under evaluation and modification and in very short time it will be in its full strength.

There are different screens for different types of user, depending upon the responsibilities and the authorization given to a particular user. Almost same look. And feel is provided to all the screens.

# REPORT

Mainly the Reports in a system are used for displaying the outputs in a well-formed manner. In every system, reports play a very important role to display the output to the user in the required format. Reports help the managers and the administrators to see the data in a summarized way with all the calculations.

Reports are of a great help to the managers in a number of ways. In the Computerized System, there are two of formats in which the reports can be generated. The names and grabs of some of the reports that can be generated are as follows:

1. PATIENT Report

2. DOCTOR Report



## LIMITATION OF PROJECT

Though the software presents a broad range of options to its users some intricate options could not be covered into it; partly because of logistic and partly due to lack of sophistication. Paucity of time is also major constraint, thus it is not possible to make the software full proof and dynamic. Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

### The limitations of the project...

The system has not online facility for appointments for the doctor.

- The system does not provide accounting facility to project for pay the guide.
- The System can not be used for all types of case studies it can be used to satisfy the requirement of a normal hospital management system.

Time available for the project work approximately three months. Normally within such a short span of time, many of facilities couldn't be included in this software. The limitations of the software are: -

## 6.TOOLS/PLATEFORM SOFTWARE REQUIREMENTS

### SOFTWARE REQUIREMENTS

- **Operating System** : Windows 7 or higher,linux etc.
- **Front End** : HTML,CSS,JS,jQuery,Bootstrap
- **Backend** : PHP and MySQL

### HARDWARE REQUIREMENTS

- **Processor.** : Intel Pentium IV
- **RAM.** : 1 GB
- **Hard disk.** : 40GB (1 MB of Space Required)
- **Monitor.** : 15" with minimal 32-bit colour support
- **Mouse.** : Normal Mouse
- **Keyboard.** : Normal keyboard

## 7. Are you doing this project for any Industry/Client?

**Ans. NO.**

## 8.FUTURE SCOPE OF THE PROJECT

The future scope of this project, **HOSPITAL AUTOMATION**, is very wide. There are many additional features, which are planned to be incorporated during the future enhancements of this project.

This project is developed with the maximum flexibility provided for future prospects and enhancements. The future enhancements in

This project will be done in other phase of the project.

I. This project only works for stand-alone. It does not work on LAN and WAN.

II. This system should not be taken as a tool to assist the Vendors in selling or selection of product. In other words it is not a type of Expert System.

III. As its title indicates, the project aims at automating the service aspects of the medicine. It is only meant for out Customer dealing.

IV. It also does not cover any in house delivery processing as would be typical of Vendors/Company. It is only meant for a simple shop where out Customers.