#### **GUJARAT TECHNOLOGICAL UNIVERSITY**

Chandkheda, Ahmedabad





# Affiliated Government Engineering College, Rajkot A Mini Project Report on

"Pharmacy Management System"

Under subject of

**Summer Internship (3170001)** 

 $B.E.,\,Semester-VII$ 

(Computer Engineering)

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2021-22

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#### CANDIDATE'S DECLARATION

We hereby declare that the work presented in this project entitled "Pharmacy Management System" submitted towards completion of summer internship mini project in 7th Semester of B.E. (Computer Engineering) is an authentic record of my original work carried out under the guidance of Nirali Madhak".

We have not submitted the matter embodied in this project for the award of any other degree.

Semester: 7th

Place: Rajkot

Signature:

Dhruvisha (190203107026)

## GOVERNMENT ENGINEERING COLLEGE RAJKOT



## **CERTIFICATAE**

Date: 16/6/2021

This is to certify that the "Pharmacy Management System" has been carried out by **DHRUVISHA VARA** my guidance in fulfilment of the subject **Summer Internship** (3170001) –Mini Project in COMPUTER ENGINEERING (7th Semester) of Gujarat Technological University, Ahmedabad during the academic year 2021-22.

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(Head of the Department)

## **ACKNOWLEDGEMENT**

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We are highly indebted to "Nirali Madhak" for their guidance and constant supervision as well as for providing necessary information regarding the Mini Project Titled "**Pharmacy Management System**". We would like to express my gratitude towards staff members of Computer Engineering Department, Government Engineering College - Rajkot for their kind co-operation and encouragement which helped us in completion of this project.

We even thank and appreciate to our colleague in developing the project and people who have willingly helped us out with their abilities.

Dhruvisha Vara 190203107926

## **ABSTRACT**

Pharmacy management system on of most essential tools that are mostly used in medical shop. It is mostly used to manage pharmacy related information such as mediation details, Company details, agent details & seller details to manage an Application.

In this Project we tried to Desktop Application based Pharmacy manage system, our main mediation details is allowed Application.

## **List of Figures**

List of figures	Page No.
3.1 Iterative Model	15
3.2 ER	18
3.3 DFD	19
3.4 Activity	20
3.5 Use Case	21

## **List of Table**

List of figures	Page No.
4.1 Agent	25
4.2 Company	25
4.3 Mediation	26
4.4 Seller	26

# **List of Image**

List of figures	Page No.
4.1 Login	27
4.2 Home Page	27
4.3 About	28
4.4 Add Agent	28
4.5 Edit Agent	29
4.6 Agent	29
4.7 Add Company	30
4.8 Edit Company	30
4.9 Company	31
4.10 Add Mediation	31
4.11 Edit Mediation	32
4.12 Mediation	32
4.13 Add Seller	33
4.14 Edit Seller	33
4.15 Seller	34
4.16 Bill	34

## **INDEX**

Sr. No	Title	Page no.
ı	Certificate(s)	li
II	Acknowledgement	lii
III	Abstract	
IV	List of Figures	
V	List of Tables (If applicable)	Vi
VI	List of Image	vii
1	Introduction	1
	✓ Introduction	2
	✓ Application	3
	✓ Project Summary	4
	✓ Scope	5
	✓ Aim & Objective	6
	✓ Research & Methodology	7
2	System Requirement Analysis	8
	✓ User Characteristics	9
	✓ Hardware and Software Requirements	10
3	System Analysis	11
	✓ Process Model	12
	✓ SRS	17
	✓ ER	18
	✓ DFD	19
	✓ Activity	20
	✓ Use Case	21
	✓ Feature Pharmacy	22
	✓ Benefit of purpose System	23
4	System Design and Implementation	24
	✓ Data Directory	25
	✓ Screenshot	27
	✓ Choice Programming Language	35
	✓ Database Speciation	36
5	Test Documentation	37
6	Conclusion	39
7	Recommendation	41
8	References	43

## **Chapter 1: Introduction**

- **✓** Introduction
- **✓** Application
- **✓ Project Summary**
- **✓** Scope
- ✓ Aim & Objective
- ✓ Research & Methodology
- ✓ Technology & Tools

## **INTROCUTION**

The main aim of the project is the management of the database of the medical shop. This is done by creating a database of the available mediation in the database is them connected to the main program application by using interconnected to java net beans & database already created.

## **APPLICATION**

This program can be used in any pharmacy management having a database to the Software used can generated report as per the user's requirement. The Software can print invoices, bill, receipts etc. It can also maintain the report of application maintain supplied record.

## **PROJECT SUMMARY**

Pharmacy management system is design to improve the accuracy safety and efficiently in the pharmaceutical store. It is a computer based system while helps the pharmacist to improve inventory management, cost, mediations, agent etc...

Pharmacy management system was developed to ensure the security at information and reliability of pharmacy record where accessing and providing services to the customer.

The information gathering during the data collation was properly analyses and the result provided the basic for the new system. The system was tested and found to be functional and the output produced by this system were encouraging.

The application will hence reduce the less of information unlike the existing system and also information will be processed fast.

## **SCOPE**

- ✓ Scope of this project application is very medical situation in covid-19 in mediation requirement to Seller.
- ✓ Can be used to covid-19 situation in mediation to supply all medical shop.
- ✓ The system handles all the operation and generated mediation recode as soon as the seller of mediation this year "covid-19".

## **AMI & OBECTIVE**

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

- ✓ Ensuring effective policing by providing statistics of the drugs in stock.
- ✓ Marinating correct database by providing an option to update the bugs (mediations) in stock.
- ✓ Improving the efficiency of the system by ensuring effective monitoring of services and activates.
- ✓ To system that the user friendly.
- ✓ To be able to gendered report within a specified period of time.

## **RESEARCH & METHEDOLOGY**

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The research method used to this project work given a description of how the pharmacy management System.

Therefor the method used in the design and collation of information from various sources.

- ✓ Studying the present system details and the organization style.
- ✓ Knowing and understating the input and output processes of the existing system.

## **Chapter 2: System Requirement Analysis**

- **✓** User characteristic
- **✓** Hardware & software requirement

## **USER & CHARACTRISTIC**

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## **Agent:**

- ✓ Agent can login system to perform all task.
- ✓ All data management to agent.

#### Seller:

- ✓ Seller can communicate to agent.
- ✓ Mediation parches.
- ✓ View details on company and mediation.
- ✓ Seller can get the bill.

Eno: 190203107026

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## HRADWARE & SOFTWARE REQUIRMENT

#### Hardware Requirement:-

- ✓ A minimum hard disk space of 20 GB.
- ✓ RAM size 1 GB.
- ✓ Pentium 4 dual processor CPU.
- ✓ A VGA color monitor.
- ✓ Mouse.
- ✓ Keyboard.

## **Software Requirement:-**

- ✓ Windows operating system such as windows 2000, windows 7, windows XP.
- ✓ Net beans 8.2 software.

## **Chapter 3: System Analysis**

- ✓ Process Model
- ✓ SRS
- ✓ ER
- **✓ DFD**
- **✓** Activity
- **✓ Use Case**
- **✓ Feature Pharmacy**
- **✓** Benefit of proposed System

## PROCESS MODEL

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#### **Software Development Life Cycle:**

Software Development Life Cycle, SDLC for short, is a well-defined, structured sequence of stages in software engineering to develop the intended software product.

## **SDLC Activity:**

SDLC provides a series of steps to be followed to design and develop a software product efficiently. SDLC framework includes the following steps:

- ✓ Communication
- ✓ Requirement Gathering
- ✓ Feasibility Study
- ✓ System Analysis
- ✓ Software Design
- ✓ Coding
- ✓ Testing
- ✓ Integration
- ✓ Implementation
- ✓ Operation & Maintenance
- ✓ Disposition

#### **Communication:**

This is the first step where the user initiates the request for a desired software product. He contacts the service provider and tries to negotiate the terms. He submits his request to the service providing organization in writing.

#### **Requirement Gathering:**

This step onwards, the software development team works to carry on the project. The team holds discussions with various stakeholders from problem domain and tries to bring out as much information as possible on their requirements. The requirements are contemplated and segregated into user requirements, system requirements and functional requirements. The requirements are collected using a number of practices as given —

- ✓ Studying the existing or obsolete system and software.
- ✓ Conducting interviews of users and developers
- ✓ Referring to the database or collecting answers from the questionnaires

#### **Feasibility Study:**

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A feasibility study is undertaken to determine the possibility or probability of either improving the existing system or developing a completely new system.

A feasibility study is defined as an evaluation or analysis of the potential impact of a proposed project. Feasibility study is conducted once the problem is clearly understood. Feasibility study is a high level capsule version of the entire system analysis and design process. The objective is to determine quickly at a minimum expense how to solve a problem. The purpose of feasibility is not to solve the problem but to determine if the problem is worth solving. Feasibility and risk analysis are related in many ways. If project risk is huge, the feasibility of producing quality software is reduced. During product engineering, however, we concentrate our attention on following primary areas of interest.

#### **System Analysis:**

At this step the developers decide a roadmap of their plan and try to bring up the best software model suitable for the project. System analysis includes understanding of software product limitations, learning system related problems or changes to be done in existing systems beforehand, identifying and addressing the impact of project on organization and personnel etc. The project team analyses the scope of the project and plans the schedule and resources accordingly.

#### **Software Design:**

Next step is to bring down whole knowledge of requirements and analysis on the desk and design the software product. The inputs from users and information gathered in requirement gathering phase are the inputs of this step. The output of this step comes in the form of two designs: logical design and physical design. Engineers produce meta-data and data dictionaries, logical diagrams, data-flow diagrams and in some cases pseudo codes.

#### **Coding:**

This step is also known as programming phase. The implementation of software design starts in terms of writing program code in the suitable programming language and developing error-free executable programs efficiently.

#### **Testing:**

An estimate says that 50% of whole software development process should be tested. Errors may ruin the software from critical level to its own removal. Software testing is done while coding by the developers and thorough testing is conducted by testing experts at various levels of code such as module testing, program testing, product testing, in-house testing and testing the product at user's end. Early discovery of errors and their remedy is the key to reliable software.

#### **Integration:**

Software may need to be integrated with the libraries, databases and other program. This stage of SDLC is involved in the integration of software with outer world entities.

#### **Implementation:**

This means installing the software on user machines. At times, software needs post-installation configurations at user end. Software is tested for portability and adaptability and integration related issues are solved during implementation.

#### **Operation & Maintenance:**

This phase confirms the software operation in terms of more efficiency and less errors. If required, the users are trained on, or aided with the documentation on how to operate the software and how to keep the software operational. The software is maintained timely by updating the code according to the changes taking place in user end environment or technology. This phase may face challenges from hidden bugs and real-world unidentified problems.

#### **Disposition:**

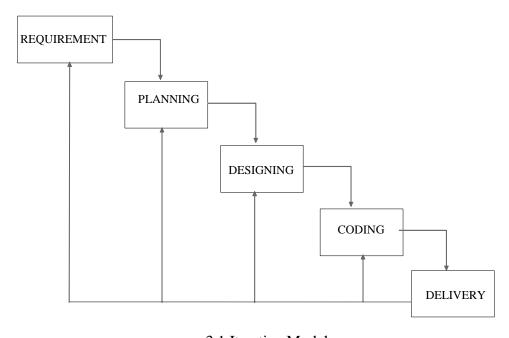
As time elapses, the software may decline on the performance front. It may go completely obsolete or may need intense up gradation. Hence a pressing need to eliminate a major portion of the system arises. This phase includes archiving data and requires software components, closing down the system, planning disposition activity and terminating system at appropriate end-of-system time.

Eno: 190203107026

This model leads the software development process in iterations. It projects the process of development in cyclic manner repeating every step after every cycle of SDLC process.

**ITERATIVE MODEL** 

The software is first developed on very small scale and all the steps are followed which are taken into consideration. Then, on every next iteration, more features and modules are designed, coded, tested and added to the software. Every cycle produces a software, which is complete in itself and has more features and capabilities than that of the previous one.



3.1 Iterative Model

After each iteration, the management team can do work on risk management and prepare for the next iteration. Because a cycle includes small portion of whole software process, it is easier to manage the development process but it consumes more resources.

#### Requirement analysis:-

The development team analyses the requirements and specifications document for completeness and feasibility. Once everyone agrees on the project specification, the next step is to analyses how to do it. The purpose of the analysis is to determine the scope of the effort.

#### Design:-

In Design phase, following activities are done by the designer.

#### **Layout and Navigation Design**

Laying out the navigation within the web site is key. The user should be directed logically through the web site so that they always know where they are going. The layout and navigation design process categorize the information and creates a flowchart, which outlines both, the organization of the web site, and the links, which will exist within the web site. The structure should naturally follow the content.

#### **Current scenario:-**

The flowcharts and block diagram providing a top-l Level view of the website are developed during this phase.

#### Human computer interface design:-

The first step to design the interface is to define what the user must accomplish. After defining the requirements, the next step is to determine the order a user would most likely use to accomplish the tasks. This requires understanding the target audience and how people want to do things. Once this is understood, the look and feel of the web site should be documented.

#### Implementing and unit testing:-

During this stage, the process of building the web according to its design is done. The detail of the operations are implemented. The integration of the new code with existing code, issued from previous iterations, is implemented gradually during the construction. Unit testing procedures are applied to the prototype. Unit testing involves verifying that each unit meets its specification

#### **Integration and testing:-**

The individual program units or programs are integrated and tested as a complete system to ensure that the web site requirements have been met. After testing, the web site is delivered to the customer.

#### **Operation:-**

Normally this is the longest life cycle phase. Before the software gets deployed to the world, it must be documented properly. The on-line help is created and checked against the distribution web site. Someone needs to use the system aided only with the on-line help and if a user can operate the system just from the on-line help, then it is ready for deployment.

#### **SRS**

SRS is the output of requirement gathering and analysis activity. SRS is a details description of the software that is to be development. It description the completed behaviors the system.

SRS description what the processed system should do without description how the software will do. It is working as reference document to the developer.

It provide guidelines for project development, so minimized the time and efforts for software development. The SRS translates the idea of the customer into the formal document.

#### **Functional Requirement:**

✓ Login:

Input: username, password.

**Process:** Verify Data And login.

Output: Correct or not

✓ Agent:

**Input:** aid, aname, age, aphone, apassword, agender.

**Process:** Data Add, Update and Delete process.

Output: Success or not.

✓ Company:

Input: cid, cname, addess, cdescription.

**Process:** Data Add, Update and Delete process.

Output: Success or not.

✓ Mediation:

**Input:** mid, mname, mprice, mquantity, mfe-date, mex-date, mcontact.

**Process:** Data Add, Update and Delete process.

Output: Success or not.

✓ Seller:

Input: sid, sname, sprice, spassword.

**Process:** Data Add, Update and Delete process.

Output: Success or not.

ER diagram is a structured analysis technique. And also description logical data items design that can converted easily into table structure. ERD is snapshot of data structure.

**ER** 

Eno: 190203107026

ER diagram enables a software engineering to identify data objects and their relationship using graphical notations. ERD is a details logical representation of any system. It has three main elements of data object entity attribute and their relationship.

#### **Entity:-**

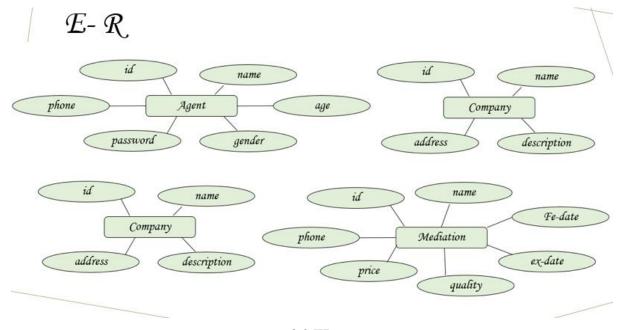
- ✓ A data object is a real world entity or things.
- ✓ It can be external entity, a thing, an organization, a place or an event.
- ✓ Entity are represent using rectangle.

#### Attribute:-

- ✓ Attribute is a property or characteristics of an entity.
- ✓ Attribute provide meaning to the object.
- ✓ Represented using oval.

#### Relationship:-

- ✓ Entity are connected to each other via relational. Generally relational is binary.
- ✓ Relationship illustrates how two entity share information in the data saturates.
- ✓ Relationship is repented using diamond shape symbol with joined relationship.



3.2 ER

#### **DFD**

Eno: 190203107026

DFD (data flow diagram) is also known as bubble chart or data flow graph. DFDs are very useful in understanding the system and can be effectively used during analysis. It show flow of data through a system visually.

The DFD is a hierarchical graphical model of a system that shows the different processing activity of functional that the system perform and data interchange among these functions.

It views a system as a function that transforms the input into desired output. Each functional is considered as a process that consumer some input data and product some output data.

#### **Process (function):-**

✓ Process or function is represented by circle or bubble. Circles are annotated with names of the corresponding functions.

#### **External entity:-**

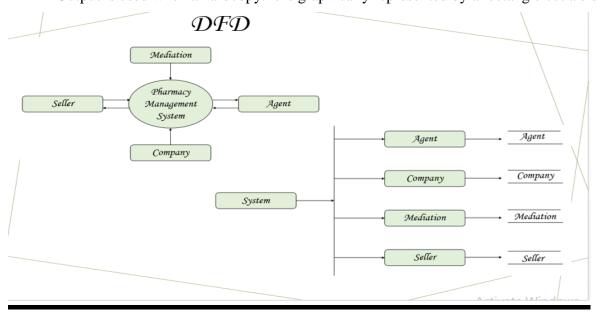
✓ Entity is represented by a rectangle. Entity are external to the system which interacts by inputting data to the system or by consuming data produced by the system.

#### Data flow:-

✓ Data flow is represented by an arc or by an arrow. It used to describe the movement of the data.

#### **Output:-**

✓ Output is used when a hardcopy. It is graphically represented by a rectangle cut a side.



3.3 DFD

#### **ACTIVITY**

Eno: 190203107026

Activity diagram consist of activity, state and transition between activity and state. It describes how the events in signal use case relate to one another.

Activity diagram represent workflow in a graphical way. Activity diagram are similar to procedural flow charts. The difference is that activity diagram support parallel actives.

#### **Activity:-**

✓ It represented a flow. Of control.

#### **Initial activity:-**

✓ Frist activity flow.

#### Final activity:-

✓ End activity flow.

#### Flow:-

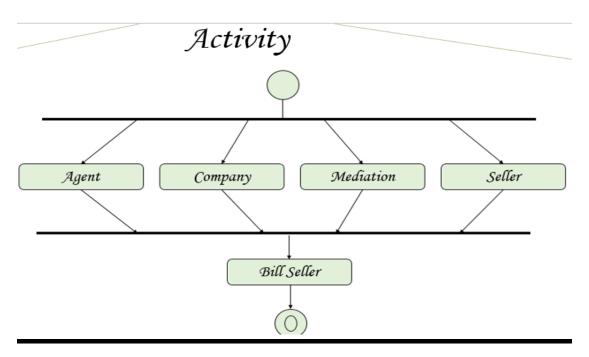
✓ Represent arrow.

#### **Decision:-**

✓ Represent diamond for condition.

#### Join:-

✓ Represent black bar and multiple incoming tarnation for single outgoing.



3.4 Activity

#### **USE CASE**

Eno: 190203107026

The use-case model for any system consisted of a set of "use cases". Use cases represents the different ways in which a system can be used by the users.

The purpose of a use case is to define the logical behavior of the system without knowing the internal structure of it. UML description "who can do what in a system".

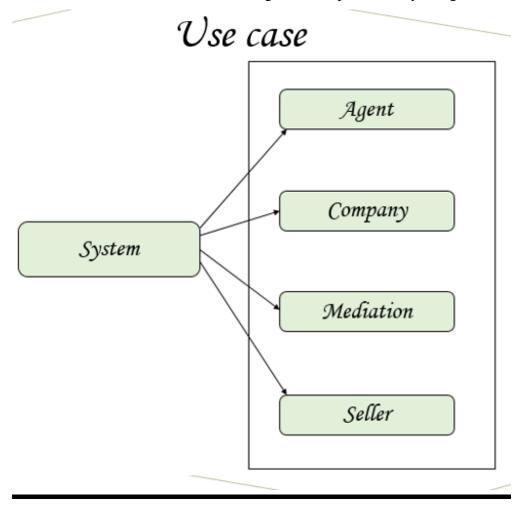
A use cases typically represent a sequence of interactions between the user and the system.

#### Use case:-

✓ Each use case is represented by an ellipse with the name of the use case written inside the ellipse, named by verb.

#### Actor:-

- ✓ An actor is anything outside the system that interact with it, named by noun.
- ✓ Actor in the use case diagram are represented by using the stick person icon.



3.5 Use Case

## **FUTURE PHARMCY**

Technological options available to pharmacy today are as number as they are convent. As the healthcare system becomes more digital, the most existing things is that pharmacists will have the potential to become more connected to patients and have more time for patient – center activates.

#### **BENIFITE OF PROPRSED SYSTEM**

Eno: 190203107026

The proposed system would be designed to help make the rigorous carried out in a pharmacy much easier by providing the statistics of drugs in stock monitoring drugs movement in the pharmacy and ensuring effecting of the activity in the pharmacy.

- ✓ The system would enhance management service and improve productivity.
- ✓ The system would enhance User/System interface.
- ✓ The system would be cost effective.
- ✓ The system would improve information quality and accessibility.

## **Chapter 4: System Design Implementation**

- **✓ Data Directory**
- ✓ Screenshot
- **✓ Choice Programming language**
- **✓ Database Specification**

Eno: 190203107026

## **DATA DIRECTORY**

Data Dictionary is the major component in the structured analysis model of the system. A data dictionary in Software Engineering means a file or a set of files that includes a database's metadata (hold records about other objects in the database), like data ownership, relationships of the data to another object, and some other data.

## ✓ Agent:

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Field name	Data type	Constraint
Aid	int(20)	Primary key
Aname	Varchar2(20)	Not null
Age	int(20)	Not null
Aphone	int(20)	Not null
Apassword	Varchar2(20)	Not null
Agender	Varchar2(20)	Not null

4.1 Agent

#### ✓ Company:

Field name	Data type	Constraint
cid	int(20)	Primary key
Cname	Varchar2(20)	Not null
cdescription	Varchar2(20)	Not null
caddress	Varchar2(20)	Not null

4.2 Company

## **✓** Mediation:

Field name	Data type	Constraint
Mid	int(20)	Primary key
Mname	Varchar2(20)	Not null
Mprice	int(20)	Not null
Mquality	int(20)	Not null
mfe-date	Varchar2(20)	Not null
mex-date	Varchar2(20)	Not null
Mcontect	Int(20)	Not null

4.3 Mediation

## ✓ Seller:

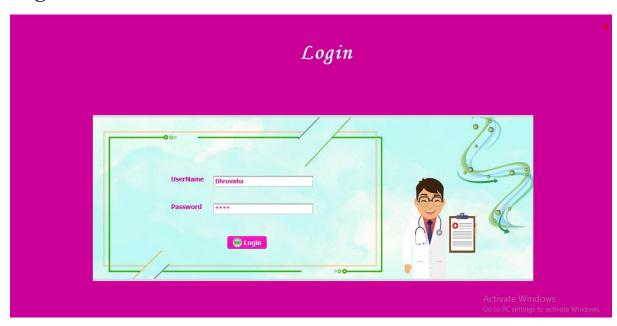
Field name	Data type	Constraint
Sid	int(20)	Primary key
Sname	Varchar2(20)	Not null
Aphone	int(20)	Not null
apassword	Varchar2(20)	Not null

4.4 Seller

## **SCREEN SHORT**

Eno: 190203107026

## Login:



4.1 Login

## **Home Page:**



4.2 Home page

### **About Me:**



4.3 About

### **Add Agent:**



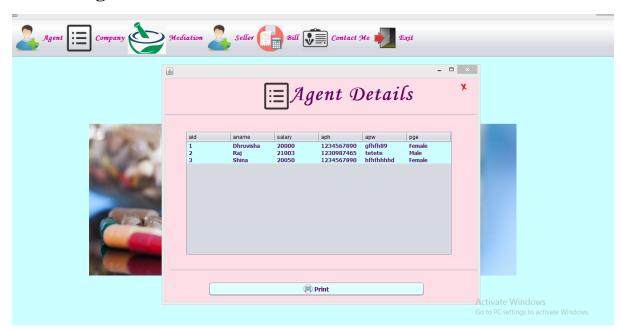
4.4 Add Agent

## **Edit Agent:**



4.5 Edit Agent

### **Details Agent:**



4.6 Agent

### **Add Company:**



4.7 Add Company

#### **Edit Company:**



4.8 Edit Company

## **Details Company:**



4.9 Company

#### **Add Mediation:**



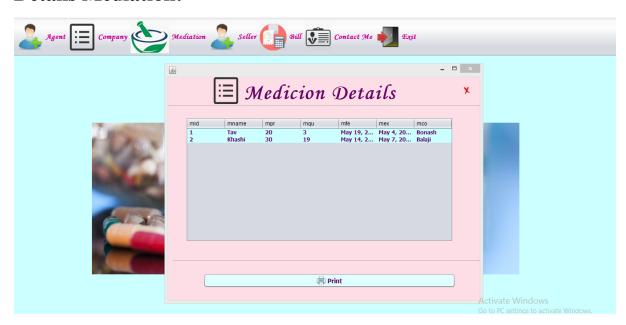
4.10 Add Mediation

### **Edit Mediation:**



4.11 Edit Mediation

#### **Details Mediation:**



4.12 Mediation

### **Add Seller:**



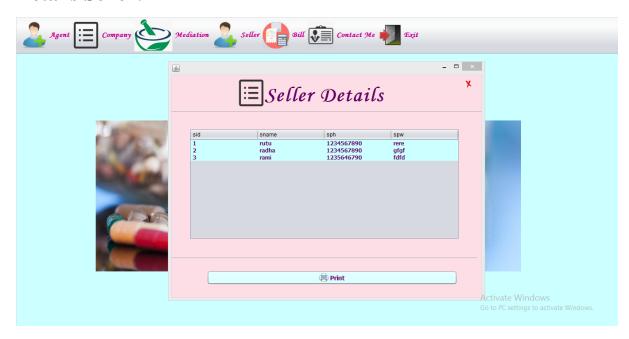
4.13 Add Seller

#### **Edit Seller:**



4.14 Edit Seller

### **Details Seller:**



4.15 Seller

### **Seller Bill:**



4.16 Bill

### **CHOICE PROGRAMMING LANGUNAGE**

Choosing a programming language depend on your language experience and the scope of the application you are building while small application are often created using only one language it is not uncommon to develop large application using multiple language.

The purpose application to be is not a web based application that needs internet facility to function but a stand long application.

The choice of programming language to use for this programming is Java net beans.

Net beans new and many improved features such as inheritance, interface and overloading that make it a powerful object oriented to programing language.

### **DATABASE SPECIFICTION**

A database is a single file which consists of structured data and records which are store in minimum or no duplication of data.

It is there for a constructer and controlled pool of data. A good database must be common to all user and independent of the programs which use it to generated output.

Howere, Microsoft access was used as the database application tool for designing the database management system. The database management system is limited only to database administer (management) whilst the system designer / developer / programming is responsible for maintain and upgrading of the database and would software.

Chapter 5: Testing

✓ Test Document

### **TEST DOCUMENTAION**

The documentation which is generated towards the end of testing the end of testing is the test summery report. It provides summary of test suite which has been applied to the system.

It specific how many test suited are successful, how many are unsuccessful and what is the degree of successful and unsuccessful. A test design speciation to identify features to be tested and associated tested.

A test case specification to define test case identified by test design specification. A test procedure specification to specify the steps for executing a set of test cases. A test summary report to summarize the result to the testing activity and to provide evaluation of their result.

Name: Dhruvisha Vara	Mini Project: Pharmacy Management System	Eno: 190203107026
	<b>Chapter 6: Concoction</b>	
	39	

## **Conclusion**

Effective implementation of this software will take care of the basic requirements of the pharmacy management system because it is capable of providing easy and effective store of information related to activate happening in the stipulated area. With there, the objective of the system design will be achieved.

Name: Dhruvisha Vara	Mini Project: Pharmacy Management System	Eno: 190203107026
_		
	Chapter 7: Recommendation	on ]
	41	

## RECCOMMENDATION

Designing this application (pharmacy management system) is not an easy task. It all stated from the requirement gathering and passes, through so many other stage before completion.

It is recommended that the software be improved especially in areas of accounting as it will be of great impact to the development of retails pharmacy.

	Name: Dhruvisha Vara	Mini Project: Pharmacy Management System	Eno: 190203107026
		<b>Chapter 8: References</b>	
		43	
Ī		10	

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