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CHAPTER ONE

INTRODUCTION

Introduction

Hospital management systems are systems that control, store and manage databases of information in the hospital.

Python is a dynamic, interpreted (byte code-compiled) language. There are no type declarations of variables, parameters, functions, or methods in source code.

Brief history

So many years ago, data storage and management was on old fashioned archives.

Old-fashioned archives take a lot of time and paper work.

Using the Python language will make finding the hospital information easier.

Objectives

The objective of this project is to design a system that saves time on drug discovery and details such as drug name, type of medicine used, and so on.

Description

This Language used is python & Notepad++ to create a database of hospital management system.

CHAPTER TWO

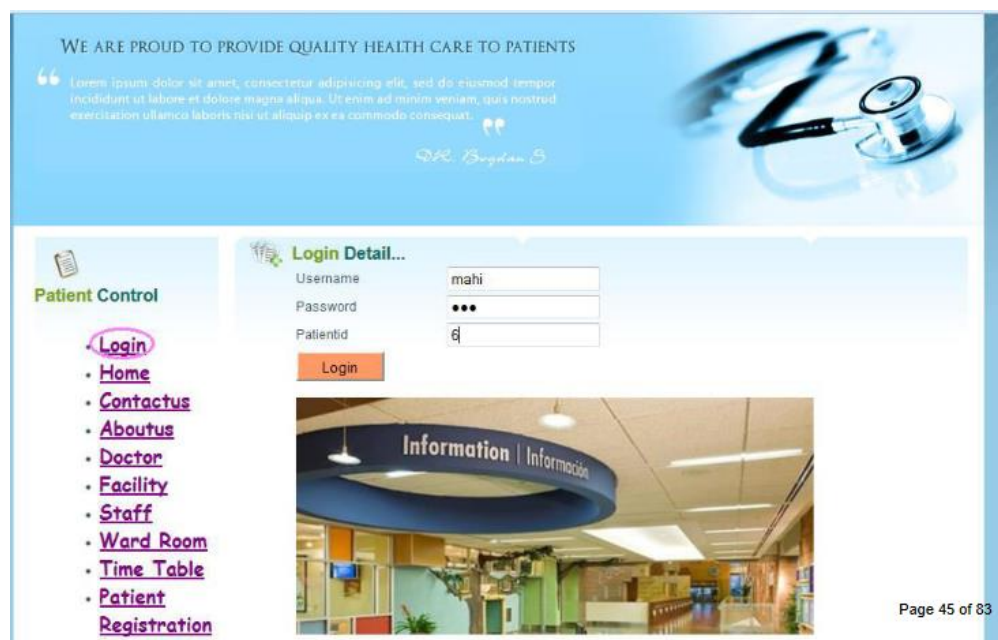
REVIEW OF RELATED LITERATURE

REVIEW OF RELATED LITERATURE

In this chapter, I will talk about the literature review of hospital management system. I will also provide quotations on some related literatures including the authors and other details. In this chapter I will also explain previous written theories about this project.

2.1 Website for hospital information system.

Patel Mona S., Patel Sweety R. Created a hospital information system project that



uses Microsoft Visual studio and MySQL server to manage databases of a hospital,

27-07-2015

Figure 2.1: Website for hospital information system

2.2 Design and Implementation of Hospital Management System

Adebisi O.A, Oladosu D.A The system solved the problems associated with the existing manual system. Security is also enhanced since access to the system

requires authentication. 1, July 2015

Figure 2.2: Design and Implementation of Hospital Management System

2.3 A PROPOSAL ON HOSPITAL MANAGEMENT SYSTEM

Paras Kumar Bishwakarma , Manish Upreti, Raju Kumar Yadav, Shreedhar

Acharya This application contains login form, patient registration, doctor registration.

Hospital Management application allow patients to edit their information like patient

name, contact number, address, disease from which he is suffering from etc. 17th

June 2014



Figure 2.3: A PROPOSAL ON HOSPITAL MANAGEMENT SYSTEM

2.4 AUTOMATED HOSPITAL MANAGEMENT SYSTEM

OGBOBE NKECHI AGNES It is a software-based application to deliver operational speed and service efficiency in any target hospital. The project Automated Hospital Management System is very accurate in its approach and suits all environments including large, medium or small scale hospitals. MAY 2011

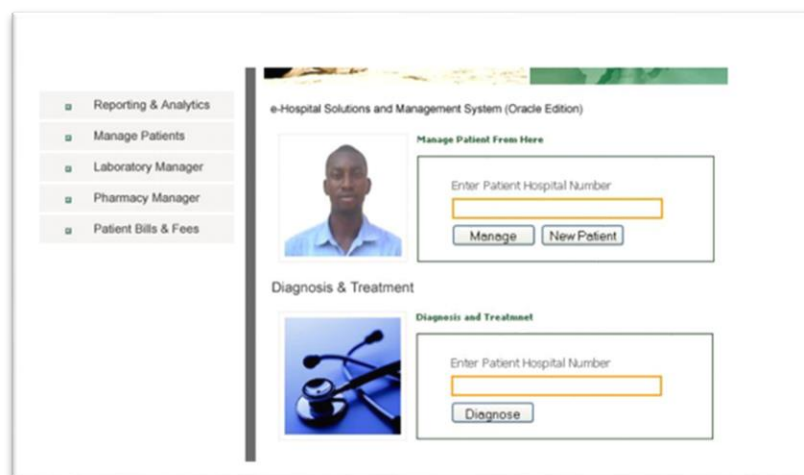


Figure 2.4: AUTOMATED HOSPITAL MANAGEMENT SYSTEM

REVIEW OF RELATED LITERATURE SUMMARY

Record quality medical records. Can be used as a complete medical proof. And can communicate the care information to the healthcare team for patient care planning. Therefore, the quality of medical records. It is therefore part of the medical records quality control system. It is a system for monitoring and analyzing qualitative medical records.

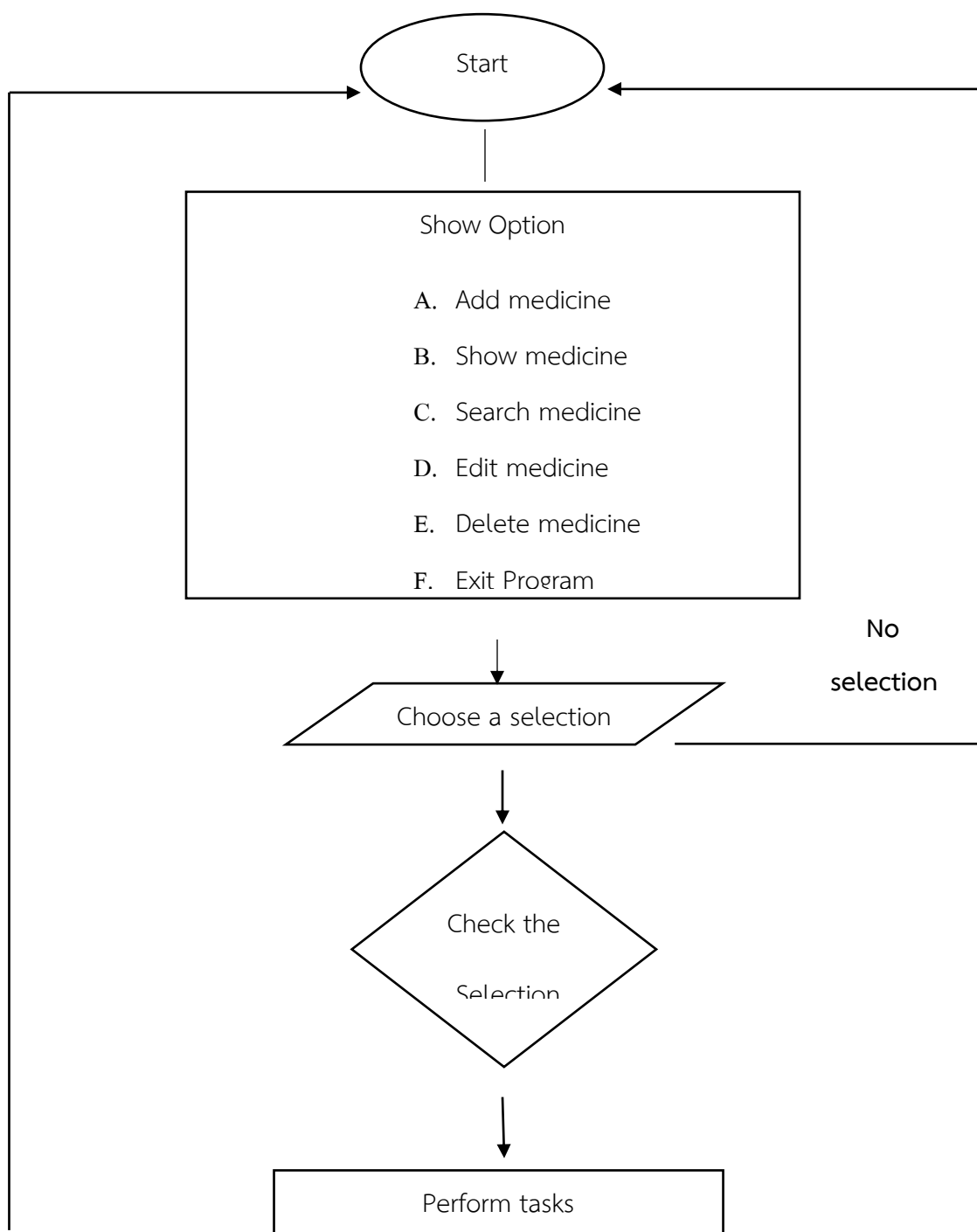
CHAPTER THREE

METHODOLOGY

3.1 Flowchart Bank Database Management System

A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.

This is flow chart showing the flow of our Hospital management system it includes all the steps which the program goes through while interacting with a user. The program created will allow the user to input data about medicine, view the input medicine data, be able to add more medicine data as well as edit, delete and search through medicine. The whole program will be created with python programming language code Witten in Notepad ++ and displayed through CMD (command prompt)





These are the steps.

Step 1: Start Program

Open the program on the homepage will come out “Welcome to simple database program with python language” and choose an options.

Step 2: Choose an option

Choose an option you can choose different options from A-G

Step 3: Perform task

- a. **Add:** Function add you can Add id, name, type, size, usage, cure and choose m or t continue.
- b. **Show:** Show information added to the add function.
- c. **Search:** Finds the information we generate in the add function.
- d. **Edit:** Edit data created in Add.

e. Delete: Delete data from created if not needed.

f. Exit: Back to menu

Step 4: End program

Close program.

3.2 SOFTWARE USED TO CREATE THE PROJECT

In this project the following software were used to create the project.

3.2.1 Notepad++

Notepad++ software was used as a platform to write python code, the python environment was activated on the Notepad++ using (-I “\$(FULL_CURRENT_PATH)”) code

3.2.2 CMD command prompt

Cmd is a command that launches the Windows Command interpreter. It can run programs through text mode.

Usually, when we use Windows, it is usually used in graphical mode (GUI) mode. This GUI system allows us to do everything. To run a program Copy files or delete files. Via windows mode But the operating system has a mode called? Command Prompt? Or maybe it's called? Dos Prompt? This is a working mode in the text environment, which means that when to use any command. You have to type the command itself. This will be seen in many programs. And even some big programs. Can be run or configured when in Command Prompt mode.

3.3 PROGRAMMING LANGUAGES USED TO CRATE THE HOSPITAL MANAGEMENT SYSTEM PROJECT

In the project the following programming languages were used.

3.3.1 Python

Python is the language used to write a programming language. It was developed without being attached to the platform. The Python language is OpenSource like PHP, so everyone can use Python to develop our program. It's free and free of charge and is an open source, allowing people to help develop Python more advanced. And use it with all the job.

3.4 Description of the Python code.

```

1  import os
2  import sqlite3
3  from prettytable import PrettyTable
4  from sys import exit
5
6  def all():
7      os.system('cls')
8      def main():
9          print("\n ===== Welcome to Simple database program with python Language =====")
10         print("\t\t\t\t\t HOSPITAL MANAGEMENT SYSTEM ")
11         print("\t\t\t\t\t This project was developed by ")
12         print("\t\t\t\t\t 1.Miss Gaewarin Thiantham (Bee) ")
13         print("\t\t\t\t\t 2.Miss Soraya Yongthum (Jane) ")
14         print("\t\t\t\t\t Subject : Computer Programming ")
15         print("\t\t\t\t\t Adviser : Aj.Tengmo ")
16         print("\n =====")
17     main()
18
19     def hospitals():
20         os.system('cls')
21         hospital()
22
23     def hospital():
24         print("\n Choose an option : A.Add \t\t\t\t\t B.Show medicine \t\t\t\t\t C.Search")
25         print("\n =====")
26         // Clear screen
27     hospital()
28     // function hospital for show data.
29
30     def Add():
31         os.system('cls')
32         connection=sqlite3.connect("C:/Hospital/Bee.db")
33
34         c=connection.cursor()
35         // function for adding data
36         // Clear screen
37         // Create
38         // Open or create database

```

Import os library

Import sqlite3 library

Import pretty table

Import exit

Show project title "Industries in Thailand project"

, members of the group , the subject and adviser

/// Show choose an option in project

```
/// show "Add data" Using the print() statement
```



```
/// Input data "id, name, type, size, usage, cure"
```

```
/// show data "id, name, type, size, usage, cure" Using the print() statement
```

```
/// Insert into data the table "id, name, type, size, usage, cure"
```

```
/// save database
```

```
/// close database
```

```

63
64
65 os.system('cls')
66 continues=input("choose M or N \n M. Continue adding \n N. Back to menu \n")
67                                     /// input the choose M or N
68 if continues=="M" or continues=="m":
69     print("you selected to continue adding\n")
70     Addmore()
71                                     /// The choose M is adding data.
72 if continues=="N" or continues=="n":
73     print("you selected to go back to the main menu\n")
74     all()
75                                     /// The choose N is back to the menu.
76
77 def Show_medicin():
78     os.system('cls')
79     print("this is also show data")
80     connection=sqlite3.connect("C:/Hospital/Bee.db",timeout=10)
81                                     /// Open program file.
82     c=connection.cursor()
83     c.execute("select*from Hospitals")
84     rows = c.fetchall()
85                                     /// Open or create database.
86                                     /// Open from industries.
87     row_count=len(rows)
88     m = PrettyTable(['idmedicine', 'namemedicine', 'typemedicine', 'size', 'usage', 'cure'])
89     i=0
90     while i<row_count:
91         m.add_row([rows[i][0],rows[i][1],rows[i][2],rows[i][3],rows[i][4],rows[i][5]])
92         i=i+1
93     print(m)
94                                     /// Show table.
95     row_count=len(rows)
96
97 continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")
98                                     /// input the choose T or S
99
100 if continues=="T" or continues=="t":
101     print("you selected to exit program\n")
102     Exit_medicin()
103                                     /// The choose T is exit program.
104 if continues=="S" or continues=="s":
105     print("you selected to go back to the main menu\n")
106     all()
107                                     /// The choose S is back to the menu.
108
109 def Search_medicin():
110     os.system('cls')
111     print("this is also search data")
112     connection=sqlite3.connect("C:/Hospital/Bee.db",timeout=10)
113     c=connection.cursor()
114                                     /// Open program file.
115                                     /// Open or create database.
116     searchidmedicine = str(input('Please enter name to be searched: '))
117                                     /// Input name for search.
118     c.execute('select*from Hospitals where idmedicine=?',(searchidmedicine,))
119     rows = c.fetchall()
120                                     /// Open from industries .
121     row_count=len(rows)
122     print(row_count)
123
124 if row_count<1:
125     print("Search doesnt exist\n")

```

```

else:
    m = PrettyTable(['idmedicine', 'namemedicine', 'typemedicine', 'size', 'usage', 'cure'])
    m.add_row([rows[0][0], rows[0][1], rows[0][2], rows[0][3], rows[0][4], rows[0][5]])
    print(m)

    for row in rows:
        print(row)

continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")

if continues=="T" or continues=="t":
    print("you selected to exit program\n")
    Exit_medicin()

if continues=="S" or continues=="s":
    print("you selected to go back to the main menu\n")
    all()

def Edit_medicin():
    os.system('cls')
    print("this is also edit data")
    connection=sqlite3.connect("C:/Hospital/Bee.db", timeout=10)
    c=connection.cursor()

    Editnamemedicine = str(input("Enter name to be Edited: "))

    print("Enter new name\n")

    nameDataE = str(input('Please enter the name: '))

    c.execute('UPDATE Hospitals SET namemedicine=? where namemedicine=?', (nameDataE, Editnamemedicine,))

    connection.commit()
    connection.close()

    continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")

    if continues=="T" or continues=="t":
        print("you selected to exit program\n")
        Exit_medicin()

    if continues=="S" or continues=="s":
        print("you selected to go back to the main menu\n")
        all()

def Delete_medicin():
    os.system('cls')
    print("this is also delete data")

    connection=sqlite3.connect("C:/Hospital/Bee.db", timeout=10)

    c=connection.cursor()

    delidmedicine = str(input('Please enter name to delete: '))
    Hospitals = c.execute('DELETE FROM Hospitals WHERE idmedicine=?', (delidmedicine,))

    connection.commit()
    connection.close()

    continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")

    if continues=="T" or continues=="t":
        print("you selected to exit program\n")
        Exit_medicin()

    if continues=="S" or continues=="s":
        print("you selected to go back to the main menu\n")
        all()

```

```

185 continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")    /// input the choose T or S
186
187 if continues=="T" or continues=="t":    /// The choose T is exit program.
188     print("you selected to exit program\n")
189     Exit_medicin()
190
191 if continues=="S" or continues=="s":
192     print("you selected to go back to the main menu\n")    /// The choose S is back to the menu
193     all()
194
195 def Exit_medicin(): /// Function for exit program
196     os.system('cls') /// Clear screen
197     print("this is also exit")    /// show "this is also exit data" using the print() statement
198 def Addmore (): /// Function for addmore data
199     os.system('cls') /// Clear screen
200     print("this is also add more data") /// Show "This is also add more data" Using the print() statementant
201
202 connection=sqlite3.connect("C:/Hospital/Bee.db",timeout=10)    /// Open program file.
203
204 c=connection.cursor()    /// Open or create database
205
206 idmedicine = str(input('Please enter the idmedicine: '))
207 namemedicine = str(input('Please enter the namemedicine: '))
208 typemedicine = str(input('Please enter the typemedicine: '))
209 size = str(input('Please enter the size: '))
210 usage = str(input('Please enter the usage: '))
211 cure = str(input('Please enter the cure: '))
212
213 print("Id:"+idmedicine,"| Name:"+namemedicine,"| Type:"+typemedicine,"|Sizs:"+size,"|Usage:"+usage,"|Cure:"+cure)    /// show data "id, name, type, size, usage, cure" Using the print() statement
214
215 c.execute(''' INSERT INTO Hospitals(idmedicine,namemedicine,typemedicine,size,usage,cure)
216           VALUES(?, ?, ?, ?, ?, ?) ''',    /// Insert into data the table "id, name, type, size, usage, cure"
217           (idmedicine,namemedicine,typemedicine,size,usage,cure))
218
219 connection.commit()    /// Save database.
220 connection.close()    /// Close database.
221
222 continues=input("choose T or S \n T.Exit program \n S.Back to menu \n")    /// input the choose T or S
223
224 if continues=="T" or continues=="t":
225     print("you selected to exit program\n")    /// The choose T is exit program.
226     Exit_medicin()
227
228 if continues=="S" or continues=="s":
229     print("you selected to go back to the main menu\n")
230     all()    /// The choose S is back to the menu
231
232 def choices():
233     choice=input("Function for choices data\n")
234
235     if choice == "A" or choice== "a":    /// input choices
236         print ("you selection Add medicine\n")
237         Add()    /// input "A" or "a" and show "you selected Add" using the print() statement
238
239     if choice == "B" or choice== "b":
240         print ("you selection Show medicine\n")
241         Show_medicin()
242         /// input "B" or "b" and show "you selected Show" using the print() statement
243
244     if choice == "C" or choice== "c":
245         print ("you selection Search medicine\n")
246         Search_medicin()
247
248     if choice == "D" or choice== "d":    /// input "C" or "c" and show "you selected Search" using the print() statement
249         print ("you selection Edit medicine\n")
250         Edit_medicin()
251         /// input "D" or "d" and show "you selected Edit" using the print() statement

```



```

250
251 if choice == "E" or choice == "e":
252     print ("you selection Delete medicine\n")    /// input "E" or "e" and show "you selected Delete" using the print() statement
253     Delete_medicin()
254
255 if choice == "F" or choice == "f":
256     print ("you selection Exit medicine\n")    /// input "F" or "f" and show "you selected Exit" using the print() statement
257     Exit_medicin()
258
259 if choice == "G" or choice == "g":
260     print ("you selection Addmore\n")    /// input "G" or "g" and show "you selected Addmore" using the print() statement
261     Addmore()
262
263     /// show "choose again" using the print() statement
264 if choice != "A" and choice != "a" and choice != "B" and choice != "b" and choice != "C" and choice != "c" and choice != "D" and
265     print ("choice again\n")
266     choices()    /// close function choices
267
268 choices()    /// close function all
269 all()
270

```

CHAPTER FOUR

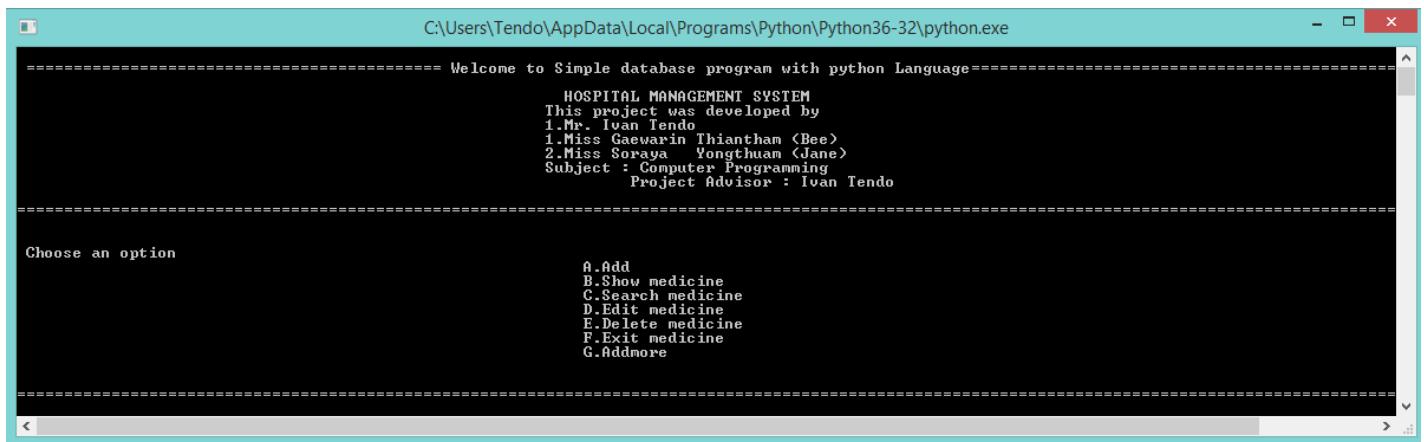
RESULTS AND DISCUSSION

4.1 Project performance.

Hospital Record System Project The purpose is to design and build programs. Hospital record system for project developers to use for their own learning more. The results are as follows.

4.2 Results

Main Menu: This page shows information form authors and consultants. There are seven



```
===== Welcome to Simple database program with python Language=====
                        HOSPITAL MANAGEMENT SYSTEM
                        This project was developed by
                        1.Mr. Ivan Tendo
                        1.Miss Gaewarin Thianthan (Bee)
                        2.Miss Soraya Yongthuan (Jane)
                        Subject : Computer Programming
                        Project Advisor : Ivan Tendo
=====

Choose an option

                        A.Add
                        B.Show medicine
                        C.Search medicine
                        D.Edit medicine
                        E.Delete medicine
                        F.Exit medicine
                        G.Addmore
=====
```

Options on this page: Add data, Shoe data, Search data, Edit data, Delete data and Exit data.

```
A.Add  
B.Show medicine  
C.Search medicine  
D.Edit medicine  
E.Delete medicine  
F.Exit medicine  
G.Addmore
```

4.2.1 Main menu

Points that link important data. Compiled in the form of a menu button. Or messages that new content throughout.

4.2.2 Add

```
Add data  
Please enter the idmedicine: 26  
Please enter the namemedicine: Glipizide  
Please enter the typemedicine: Tablet  
Please enter the size: Small  
Please enter the usage: Internal  
Please enter the cure: Controlling the blood sugar level of type 2 diabetics.
```

Add medication information to the database.

this is also show data

| idmedicine | namemedicine | typemedicine | size | usage | cure |
|------------|--------------------|------------------------------|-------|---------------------|-------------------------------------------------------------------------------------------------|
| 1 | Acetazolamide | Tablet , injection | Small | Internal | Glaucoma, epilepsy, diuretic, prevention and reduction of symptoms caused by altitude sickness. |
| 2 | Acitretinism | Tablet | Small | Internal | Skin disease |
| 3 | Adenosine | Injection | Small | Internal | Treatment of certain cardiac disorders. |
| 4 | Atenolol | Tablet , injection | Small | Internal | Cardiovascular system treatment |
| 5 | Benzodiazepines | Capsule , Tablet , injection | Small | Internal | A sleeping pill |
| 6 | Betahistine | Tablet | Small | Internal | Treatment and prevention of dizziness from water in the ear is |
| 7 | Budesonide | Tablet , Capsule | Small | External , Internal | Asthma treatment |
| 8 | Carbocysteine | Water drug , Capsule | Small | Internal | Relieve cough with chronic sputum. |
| 9 | Cefixime | Tablet | Small | Internal | Treatment of diseases caused by bacteria. |
| 10 | Carvedilol | Tablet | Small | Internal | Treating heart failure and lowering blood pressure. |
| 11 | Captopril | Tablet | Small | Internal | Treatment of high blood pressure and heart failure. |
| 12 | Chlorhexidine | Mouthwash | Small | External | Treatment of oral and throat infections. |
| 13 | Clotrimazole | Lozenge | Small | External , Internal | Treatment of fungal infections. |
| 14 | Dexamethasone | Capsule | Small | Internal | Anti-inflammatory |
| 15 | Diclofenac | Cream | Small | Internal , External | Relieve pain and swelling. |
| 16 | Digoxin | Water drug | Small | Internal | Treat heart failure |
| 17 | Diphenhydramine | Water drug | Small | Internal | Relieve allergies. |
| 18 | Donepezil | Capsule | Small | Internal | Treatment of mild to moderate dementia in Alzheimer's patients. |
| 19 | Relieve allergies. | Injection | Small | Internal | Toxic heavy metal poisoning Treatment of brain disorders from lead poisoning. |
| 20 | Efavirenz | Tablet , Capsule | Small | Internal | Treatment of HIV infection |
| 21 | Enalapril | Water drug | Small | Internal | Treatment of high blood pressure and heart failure. |
| 22 | Ethambutol | Tablet | Small | Internal | Tuberculosis treatment for pulmonary tuberculosis. |
| 23 | Ezetimibe | Tablet | Small | Internal | Treatment of high blood lipids. |
| 24 | Famotidine | Tablet , injection | Small | Internal | Treat stomach ulcers |
| 25 | Flunarizine | Capsule | Small | Internal | Treatment and prevention of migraine headaches. |

choose T or S
T.Exit program
S.Back to menu

4.2.3 Show

Show all data in table format.

4.2.4 Search

this is also search data
Please enter name to be searched: 20

| idmedicine | namemedicine | typemedicine | size | usage | cure |
|------------|--------------|------------------|-------|----------|----------------------------|
| 20 | Efavirenz | Tablet , Capsule | Small | Internal | Treatment of HIV infection |

<20, 'Efavirenz', 'Tablet , Capsule', 'Small', 'Internal', 'Treatment of HIV infection'>
choose T or S
T.Exit program
S.Back to menu

Find the information you want to see.

```
this is also edit data
Please enter name to be Edited: Glipizide
Enter new name

Please enter the name: Guaifenesin
choose T or S
T.Exit program
S.Back to menu
```

4.2.5 Edit

Used to modify the data in the database.

4.2.6 Delete

```
this is also delete data
Please enter id to delete: 26
choose T or S
T.Exit program
S.Back to menu
_
```

Used to delete unwanted data in the database.

4.2.7 Exit

```
this is also exit
>>> _
```

Work is finished.

CHAPTER FIVE

SUMMARY

Record quality medical records. Can be used as a complete medical proof. And can communicate the care information to the healthcare team for patient care planning. Therefore, the quality of medical records. It is therefore part of the medical records quality control system. It is a system for monitoring and analyzing qualitative medical records.

Python languages can store large amounts of data. It is also easy to find information. And can be used to develop simple, not complicated.