**PROJECT REPORT**

**PROJECT NAME: HOSPITAL MANAGEMENT SYSTEM**

**OBJECTIVES**:

* The project has been designed in python to display the information regarding the doctor’s availability, fees, timings of 10 different departments of a hospital.
* The admin can book an appointment for the patient.
* The user can also view the appointment details.

The departments selected are:

1. Outpatient(OPD)
2. Inpatient\_Service(IP)
3. Psychology
4. Cardiology
5. ENT
6. Gastroenterology
7. Nutrition
8. Physiotherapy
9. Hematology
10. Neurology

**MAIN MENU** consists of the following options

1. **View Department Information**

* The user has to enter the department number as displayed in the menu.
* The information about doctors availability, fees, timings will be displayed automatically.
* The main information is stored in a Text file. This file is opened in Jupyter notebook through python code and all its contents are transformed into a list and the information is displayed through a function.

1. **Book an appointment**

* The admin has to enter the password
* Book an appointment by entering the department number, patient name, age, phone number, address.
* The details are stored in a list that will be transferred to a text file using file handling methods.

1. **View the appointment details**

* All the appointments will be displayed from a text file using file handling methods.

**Software Requirements**: Notepad, Python, Jupyter Notebook

**Python Code**:

import random

#To print the Department information

class details:

def \_\_init\_\_(self,list1,option1):

self.list1=list1

self.option1=option1

class show(details):

def show1(self):

for i in range(len(self.list1)):

if self.option1==self.list1[i]:

print("\nDepartment Name and Number:",self.list1[i-1]+" "+self.option1)

print("Doctor's Available: ",self.list1[i+1])

print("Fees: ",self.list1[i+2])

print("Timings: ",self.list1[i+3])

break

elif self.option1=='11':

print("\nEmergency contact details: 040-1231233, 789456123")

break

else:

pass

continuechoice()

var=open("C:/Users/Reena/Desktop/personal/python/Departments.txt",'r')

var1=var.read()

var2=var1.split()

input1=[]#to book the appointment

a1="HOSPITAL MANAGEMENT SYSTEM\n"

print(a1.center(100))

print("-"\*100,"\n")

def departments():

print("\nDepartment Number and Department name\n")

print(" 1 Outpatient\n 2 Inpatient\_Service(IP)\n 3 Psychology\n 4 Cardiology\n 5 ENT")

print(" 6 Gastroenterology\n 7 Nutrition\n 8 Physiotherapy\n 9 Hematology\n 10 Neurology \n 11 Emergency")

def menu():

print("MAIN MENU")

print("1. View Department Information")

print("2. Book an appointment")

print("3. View the appointment details")

print("4. Exit")

opt=str(input("\n Enter the option number: "))

return opt

def bookmenu1():

departments()

h=str(input("\nSelect the Department Number from the list:"))

h1=''

#department name

for i in range(len(var2)):

if h==var2[i]:

h1=var2[i-1]

input1.append(h1)

break

else:

pass

if h1=='':

print('\nINCORRECT DEPARTMENT NUMBER')

bookmenu1()

else:

pass

def bookmenu2():

h2=str(input("\n1. Enter Patient Name: "))

h3=str(input("2. Enter Age: "))

h4=str(input("3. Enter Phone Number: "))

h5=str(input("4. Enter Home Address: "))

if (h2=='')or (h3=='') or (h4=='')or (h5==''):

print("\n ALL DETAILS ARE MANDATORY")

bookmenu2()

else:

input1.append(h2)

input1.append(h3)

input1.append(h4)

input1.append(h5)

def Timeslot():

print("\nTime slots Available:",end=" ")

time1=random.sample(range(9,18),3)

print(sorted(time1))

Timeslot1=str(input("Enter the time slot: "))

if Timeslot1=='':

print('\nENTER THE TIME SLOT')

Timeslot()

else:

input1.append(Timeslot1)

def confirmation():

bookmenu1()

bookmenu2()

Timeslot()

print("\nAppointment Confirmed")

Appid=random.randrange(1000,5000)

input1.append(Appid)

print("Appointment ID:", Appid)

list(map(str,input1))

appointment=open("C:/Users/Reena/Desktop/personal/python/Appointment.txt",'a')

write1="/".join(map(str,input1))

appointment.write("\n"+write1)

appointment.close()

print("\n")

mainmenu()

def continuechoice():

for m in range(100):

continue1=str(input("\nDo you still want to continue with Department Menu(y/n): "))

if continue1=='y':

print("\n")

dept\_num=depchoice()

break

elif continue1=='n':

print("\n")

mainmenu()

break

else:

print("\n ENTER THE CORRECT CODE y/n")

continuechoice()

break

def password():

password1=str(input("\nEnter Password: "))

if password1=='1234':

confirmation()

else:

print("\nWRONG PASSWORD")

password()

def depchoice():

departments()

count=0

dept\_num=str(input("\nSelect the Department Number from the list:"))

for i in range(len(var2)):

if dept\_num==var2[i]:

obj1=show(var2,dept\_num)

obj1.show1()

count+=1

break

else:

pass

if count==0:

print("\nINCORRECT DEPARTMENT NUMBER")

depchoice()

else:

pass

def userchoice(choice):

if choice=='1':

depchoice()

elif choice=='2':

#admin has to enter the password

password()

elif choice=='3':

view1=open("C:/Users/Reena/Desktop/personal/python/Appointment.txt",'r')

print("\n",view1.read(),"\n")

view1.close()

mainmenu()

elif choice=='4':

pass

else:

print("\nSELECT THE CORRECT OPTION\n")

mainmenu()

def mainmenu():

menuchoice=menu()

userchoice(menuchoice)

mainmenu()

var.close()

**Output**:

HOSPITAL MANAGEMENT SYSTEM

-----------------------------------------------------------------------------

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 1

Department Number and Department name

1 Outpatient

2 Inpatient\_Service(IP)

3 Psychology

4 Cardiology

5 ENT

6 Gastroenterology

7 Nutrition

8 Physiotherapy

9 Hematology

10 Neurology

11 Emergency

Select the Department Number from the list:1

Department Name and Number: Outpatient(OPD) 1

Doctor's Available: 5-Doctors

Fees: 2000/per/visit

Timings: 24/7

Do you still want to continue with Department Menu(y/n): n

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 2

Enter Password: 1234

Department Number and Department name

1 Outpatient

2 Inpatient\_Service(IP)

3 Psychology

4 Cardiology

5 ENT

6 Gastroenterology

7 Nutrition

8 Physiotherapy

9 Hematology

10 Neurology

11 Emergency

Select the Department Number from the list:1

1. Enter Patient Name: xavierina

2. Enter Age: 30

3. Enter Phone Number: 123123123

4. Enter Home Address: mettuguda

Time slots Available: [11, 13, 16]

Enter the time slot: 11

Appointment Confirmed

Appointment ID: 3022

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 3

Department\_Name/Patient\_Name/Age/Phone\_Number/Home\_Address/Time\_slot/Appointment\_id

Outpatient(OPD)/xavierina/30/123123123/mettuguda/11/3022

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 4