**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 various lists and the information is displayed by accessing these lists.

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,a,b,c,d,e):

self.a=a

self.b=b

self.c=c

self.d=d

self.e=e

def show1(self):

print("\nDepartment Name and Number:",self.a+" "+self.b)

print("Doctor's Available: ",self.c)

print("Fees: ",self.d)

print("Timings: ",self.e)

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

var1=var.read()

var2=var1.split()

a1="HOSPITAL MANAGEMENT SYSTEM\n"

print(a1.center(100))

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

Dept1,Dept2,Dept3,Dept4,Dept5,Dept6,Dept7,Dept8,Dept9,Dept10=([] for k in range(10))

Dept\_name=[] #To display the menu

#Created lists for different departments and added the values

for i in range(len(var2)):

if var2[i]=='Outpatient(OPD)':

Dept1.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept1.append(var2[j])

elif var2[i]=='Inpatient\_Service(IP)':

Dept2.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept2.append(var2[j])

elif var2[i]=='Psychology':

Dept3.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept3.append(var2[j])

elif var2[i]=='Cardiology':

Dept4.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept4.append(var2[j])

elif var2[i]=='ENT':

Dept5.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept5.append(var2[j])

elif var2[i]=='Gastroenterology':

Dept6.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept6.append(var2[j])

elif var2[i]=='Nutrition':

Dept7.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept7.append(var2[j])

elif var2[i]=='Physiotherapy':

Dept8.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept8.append(var2[j])

elif var2[i]=='Hematology':

Dept9.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept9.append(var2[j])

elif var2[i]=='Neurology':

Dept10.append(var2[i])

Dept\_name.append([var2[i+1],var2[i]])

for j in range(i+1,i+5):

Dept10.append(var2[j])

else:

pass

Emergency="Emergency Contact Details"

Dept\_name.append([11,Emergency])

def departments():

print("\nDEPARTMENTS\n")

for i in range(len(Dept\_name)):

print(\*Dept\_name[i],sep=" ")

def choice1(option):

a,b,c,d,e=(" "for l in range(5))

if option==1:

a,b,c,d,e=(Dept1[i] for i in range(5))

elif option==2:

a,b,c,d,e=(Dept2[i] for i in range(5))

elif option==3:

a,b,c,d,e=(Dept3[i] for i in range(5))

elif option==4:

a,b,c,d,e=(Dept4[i] for i in range(5))

elif option==5:

a,b,c,d,e=(Dept5[i] for i in range(5))

elif option==6:

a,b,c,d,e=(Dept6[i] for i in range(5))

elif option==7:

a,b,c,d,e=(Dept7[i] for i in range(5))

elif option==8:

a,b,c,d,e=(Dept8[i] for i in range(5))

elif option==9:

a,b,c,d,e=(Dept9[i] for i in range(5))

elif option==10:

a,b,c,d,e=(Dept10[i] for i in range(5))

elif option==11:

print("\n EMERGENCY CONTACT NUMBERS: 040-1231233,040-1234567 ")

a,b,c,d,e=("NA",)\*5

else:

pass

obj1=details(a,b,c,d,e)

obj1.show1()

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

return opt

def bookmenu():

input1=[]

h=str(input("\nEnter Department Number: "))

h1=[]

h2=''

for i in Dept\_name:

for j in i:

h1.append(str(j))

for i in range(len(h1)):

if h1[i]=='1':

h2=h1[i+1]

else:

pass

#department name

input1.append(h2)

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

input1.append(h)

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

input1.append(h)

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

input1.append(h)

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

input1.append(h)

return input1

def Confirmation(input2):

len1=len(input2)

e1=input2

count=0

for i in range(len1):

if e1[i]=='':

count+=1

else:

pass

if count==0:

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

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

print(sorted(time1))

Timeslot=int(input("Enter the time slot: "))

input2.append(Timeslot)

print("\nAppointment Confirmed")

Appid=random.randrange(1000,5000)

input2.append(Appid)

print("Appointment ID:", Appid)

list(map(str,input2))

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

write1="/".join(map(str,input2))

appointment.write("\n"+write1)

appointment.close()

print("\n")

mainmenu()

else:

print("Please enter the correct details")

input2=bookmenu()

Confirmation(input2)

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")

departments()

dept\_num=int(input("\nEnter the department number: "))

choice1(dept\_num)

elif continue1=='n':

print("\n")

mainmenu()

break

else:

print("\nEnter the correct code y/n")

continuechoice()

break

def userchoice(choice):

if choice==1:

departments()

dept\_num=int(input("\nSelect the Department Number from the list for more information: "))

choice1(dept\_num)

continuechoice()

elif choice==2:

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

if password1==1234:

departments()

input2=[]

input2=bookmenu()

Confirmation(input2)

else:

print("Wrong password")

mainmenu()

elif choice==3:

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

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

view1.close()

mainmenu()

else:

pass

def mainmenu():

menuchoice=menu()

userchoice(menuchoice)

mainmenu()

var.close()

**Output**:

HOSPITAL MANAGEMENT SYSTEM

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MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 1

DEPARTMENTS

1 Outpatient(OPD)

2 Inpatient\_Service(IP)

3 Psychology

4 Cardiology

5 ENT

6 Gastroenterology

7 Nutrition

8 Physiotherapy

9 Hematology

10 Neurology

11 Emergency Contact Details

Select the Department Number from the list for more information: 1

Department Name and Number: Outpatient(OPD) 1

Doctor's Available: 5

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

DEPARTMENTS

1 Outpatient(OPD)

2 Inpatient\_Service(IP)

3 Psychology

4 Cardiology

5 ENT

6 Gastroenterology

7 Nutrition

8 Physiotherapy

9 Hematology

10 Neurology

11 Emergency Contact Details

Enter Department Number: 1

1. Enter Patient Name: Rina

2. Enter Age: 20

3. Enter Phone Number: 789456123

4. Enter Home Address: Hyderabad

Time slots Available: [10, 12, 13]

Enter the time slot: 10

Appointment Confirmed

Appointment ID: 1160

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 3

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

Outpatient(OPD)/xavierina/30/123456789/Mettuguda/9/4498

Outpatient(OPD)/Rina/20/789456123/Hyderabad/10/1160

MAIN MENU

1. View Department Information

2. Book an appointment

3. View the appointment details

4. Exit

Enter the option number: 4

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