```python
#!/usr/bin/env python
# coding: utf-8

# In[ ]:


from IPython.display import clear_output
import sys

class Hospital:
    def __init__(self,name,doctorsList,patientList):
        self.name = name
        self.doctors = doctorsList
        self.patients = patientList
        self.bookingDic = dict()
        self.users = ("superadmin","admin","doctor","patient")
        #self.Menu = ("Display Doctor","Add Doctor","Add Patiant","New Booking","
        self.currentLoginUser = {}

    #this function is to display welcome message and show menus required to choos
    def welcomeMessage(self):
        print("*************************************************************
        print("******************* Hospital Management System **************
        print(f"********************** Welcome to {self.name}***************
        print("*************************************************************

    def logout(self):
        clear_output(wait=True)
        print("*************************************************************
        print("******************* Thak you for using the HMS *************
        print(f"********************** You a re now successfully logged out ****
        print("*************************************************************

    def login(self):
        self.welcomeMessage()
        print("Please enter the number for your role in the hospital management s
        print("1 for Super Admin")
        print("2 for Admin")
        print("3 for Doctor")
        print("4 for Patient")
        return input()

    def displayMenuByRole(self):
        clear_output(wait=True)
        self.welcomeMessage()
        print("You are logged in as", self.currentLoginUser["role"])
        print("************************Please choose the menu to continue*****
        if self.currentLoginUser["role"] == "superadmin":
            print("1 for Display Doctor")
            print("2 Add Doctor")
            print("3 Add Patiant")
            #print("4 New Booking")
            print("5 Display Patient Details")
            #print("6 Add Users")
            print("*********************************************************
        elif self.currentLoginUser["role"] == "admin":
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            print("1 for Display Doctor")
            #print("2 Add Doctor")
            print("3 Add Patiant")
            print("5 Display Patient Details")
            #print("4 New Booking")
            print("***************************************************
        elif self.currentLoginUser["role"] == "doctor":
            print("5 Display Patient Details")
        elif self.currentLoginUser["role"] == "patient":
            print("5 Display Patient Details")
            print("***************************************************

        while(True):
            try:
                i = int(input())
                clear_output(wait=True)
                self.welcomeMessage()
                print("You are logged in as", self.currentLoginUser["role"])
                if (h.currentLoginUser["role"] == "superadmin") and (i in range(1
                    h.dsiplaySelectedPage(i)
                    break
                elif self.currentLoginUser["role"] == "admin" and i in range(1,5)
                    h.dsiplaySelectedPage(i)
                    break
                elif self.currentLoginUser["role"] == "doctor" and i==5:
                    h.dsiplaySelectedPage(i)
                    break
                elif self.currentLoginUser["role"] == "patient" and i==5:
                    h.dsiplaySelectedPage(i)
                    break
                else:
                    print("Invalid input, Please choose the correct menu")
            except Exception as error:
                print("Invalid input, Please choose the menu correctly. Error det

        e = input("Enter B to go back to main menu, E or any other key to logout
        if e=="B":
            h.displayMenuByRole()
        else:
            h.logout()


    def dsiplaySelectedPage(self, menuId):
        print("Inside dsiplaySelectedPage")
        if menuId == 1:
            self.displayDoctors()
        elif menuId == 2:
            self.addDoctor()
        elif menuId == 3:
            self.addPatient()
        elif menuId == 4:
            self.newBooking()
        elif menuId == 5:
            self.dispalyPatient()
        elif menuId == 6:
            self.addUser()
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    def displayDoctors(self):
        print("Our doctors are listed below:")
        for doctor in self.doctors:
            print(doctor["doctorId"],".",doctor["doctorName"],doctor["speciality"


    def newBooking(self):

        pass

    def addDoctor(self):
        name = input("Please enter the name of the doctor")
        spec = input("Please enter the speciality")
        quali = input("Please enter the qualification")
        new_docId = max([doc["doctorId"] for doc in self.doctors]) + 1
        self.doctors.append({"doctorId":new_docId,"doctorName":name,"speciality"
        self.displayDoctors()

    def addPatient(self):
        name = input("Please enter the name of the patient")
        age = input("Please enter the age of patient")
        address = input("Please enter the address of the patient")
        new_patientId = max([patient["patientId"] for patient in self.patients])
        self.patients.append({"patientId":new_patientId,"name":name,"age":age,"ad
        self.dispalyPatient()

    def dispalyPatient(self):
        print("Patient database:")
        counter = 1

        for patient in self.patients:
            print(patient["patientId"],".",patient["name"],patient["age"],patient
            counter+=1

    def addUser(self):
        #this will be implemented in future, currently login is not required, onl
        pass

if __name__ == "__main__":

    doctorList = [{"doctorId":1,"doctorName":"Dr. Thomas Mathew","speciality":"EN
                  {"doctorId":2,"doctorName":"Dr. Jameela Hassan","speciality":"C
                  {"doctorId":3,"doctorName":"Dr. Siva Sachi","speciality":"Pede"
                  {"doctorId":4,"doctorName":"Dr. Salahuddin","speciality":"Gen M
    patientList = [{"patientId":1,"name":"Thasni","age":"35","address":"10 backe
                   {"patientId":2,"name":"Himali","age":"34","address":"1121 Kart
                   {"patientId":3,"name":"Riza","age":"33","address":"maliyekkal,
                   {"patientId":4,"name":"Roopa","age":"35","address":"101 Bur du

    h = Hospital("MIMS Kozhikode",doctorList,patientList)


    while(True):
        try:
            i = int(h.login())
            h.currentLoginUser["role"] = h.users[i-1]
            break
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        except:
            print("Invalid input, Please enter 1 for Super Admin 2 for Admin 3 fo

    h.displayMenuByRole()
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