import mysql.connector  
import random  
mydb = mysql.connector.connect(  
 host="localhost",  
 user="root", # enter your username of your mysql server  
 passwd="Sumanth@89",# enter your password of your mysql server  
)  
mycursor = mydb.cursor()  
try:  
 mycursor.execute("CREATE DATABASE newdatabase;")  
 print("database successfully created")  
  
except Exception as e:  
 print(e)  
  
try:  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
 mycursor = mydb.cursor()  
 print("connection successfully established")  
  
except Exception as e:  
 print(e)  
  
  
  
try:  
 # creating teacher table to store teacher information  
 mycursor.execute("Create table teacher(teacherid int AUTO\_INCREMENT PRIMARY KEY, pass varchar(100) not null,department varchar(255) NOT NULL,salary int NOT NULL,experience int NOT NULL,teachername varchar(255) NOT NULL)")  
 print("teacher table successfully created")  
except Exception as e:  
 print(e)  
  
  
  
try:  
 # creating student table to store student information  
 mycursor.execute(  
 "Create table student(studentid int AUTO\_INCREMENT,pass varchar(100) not null,firstname varchar(255) NOT NULL,lastname varchar(255) NOT NULL,fullname varchar(500) not null,consellorid int not null ,PRIMARY KEY(StudentID),FOREIGN KEY (consellorid) REFERENCES teacher(teacherid))")  
 print("student table successfully created")  
except Exception as e:  
 print(e)  
  
  
  
try:  
 # creating studentmarks table to store student marks  
 mycursor.execute(  
 "Create table studentmarks(studentid int ,ia1marks int NOT NULL,ia2marks int NOT NULL,famarks int NOT NULL,average float not null,PRIMARY KEY(studentid),FOREIGN KEY (studentid) REFERENCES student(studentid));")  
 print("studentmarks table successfully created")  
except Exception as e:  
 print(e)  
  
  
  
try:  
 # creating admins table to store admins information  
 mycursor.execute(  
 "Create table admins(adminsid varchar(255) primary key,pass varchar(255) NOT NULL);")  
 print("admins table successfully created")  
except Exception as e:  
 print(e)  
  
try:  
 # creating admins table to store admins information  
 mycursor.execute(  
 "insert into admins values('admin','open@me');")  
  
except Exception as e:  
 print(e)  
  
# main program is at the last i.e line no 420  
  
  
def login(a):  
 user = str(input("enter "+a+"id:"))  
 m=[]  
 try:  
 sql = "select pass from " + a + " where " + a + "id = " + user  
  
 mycursor.execute(sql)  
 m = mycursor.fetchall();  
  
 except:  
 print("enter the id in correct format i.e string should be entered within ''")  
  
  
 if m == []:  
 print("invalid username")  
 login(a)  
 else:  
 if (m[0][0] == str(input("enter the password"))):  
  
 sql = "select \* from "+a+ " where "+a+"id = " + user  
  
 mycursor.execute(sql)  
 m = mycursor.fetchall()  
 m.append(a)  
 return m  
 else:  
 print("password and user name doesn't match \n please try again")  
 login(a)  
  
  
def newteacher(y):  
 m = y  
 a = str(input(" teacher name: "))  
 b = str(input("teacher department: "))  
 c = str(input("teacher salary:"))  
 d = str(input("teacher experience:"))  
  
 sql = "INSERT INTO teacher (pass,teachername,department,salary,experience) values('1234','"+a+"','"+b+"',"+c+","+d+")"  
 mycursor.execute(sql)  
  
 sql = "SELECT \* FROM teacher WHERE teacherid=(SELECT max(teacherid) FROM teacher)"  
 mycursor.execute(sql)  
 m = mycursor.fetchmany()  
 print("teacher Username id for entering the portal : " + str(m[0][0]))  
 print("password for entering the portal : " + str(m[0][1]))  
  
  
  
  
def updateteachersalary(y):  
 m = y  
 a=str(input("enter teacherid"))  
 sql="select average from studentmarks where studentid in (select studentid from student where consellorid ="+a+ ")"  
 mycursor.execute(sql)  
 m = mycursor.fetchall()  
 s=0  
 for i in m:  
 s=s+i[0]  
 if(s/len(m)>50):  
 print("this one is eligible for increment")  
 sql="select \* from teacher where teacherid ="+a  
 mycursor.execute(sql)  
 k=mycursor.fetchall()  
 sql = "update teacher set salary = "+str(k[0][3])+ "+10000 where teacherid ="+a  
 mycursor.execute(sql)  
 sql = "select \* from teacher where teacherid =" + a  
 mycursor.execute(sql)  
 l = mycursor.fetchall()  
 print("before update")  
 print(k)  
 print("------------------------------")  
 print("after update")  
 print(l)  
 print("------------------------------")  
 else:  
 print("not eligible for increment")  
  
  
  
  
def viewstudentmarks(y):  
 m = y  
 a = str(input("enter studentid"))  
 sql="select \* from studentmarks where studentid = "+str(a)  
 mycursor.execute(sql)  
 k = mycursor.fetchall()  
 print(k)  
  
  
  
  
def updatestudentmarks\_A(a):  
 a = str(input("studentid: "))  
 try:  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
  
 mycursor = mydb.cursor()  
 sql = "select \* from student where studentid =" + a  
 mycursor.execute(sql)  
 b = int(input("enter new IA1 marks: "))  
 c = int(input("enter new IA2 marks: "))  
 d = int(input("enter new FA marks: "))  
 e = (((b + c) / 2) + d) / 2  
 sql = "update studentmarks set ia1marks = " + str(b) + " ,ia2marks = " + str(c) + " ,famarks= " + str(  
 d) + " ,average=" + str(e) + " where studentid =" + str(a)  
  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
  
 mycursor = mydb.cursor()  
 mycursor.execute(sql)  
 sql = "select \* from studentmarks where studentid =" + a  
 mycursor.execute(sql)  
 y = mycursor.fetchall()  
 mycursor.execute("SHOW columns FROM studentmarks")  
 k = mycursor.fetchall()  
 for i in range(len(k)):  
 print(k[i][0], "=", y[0][i])  
  
 except:  
 print("no student is registered with that id")  
  
  
  
  
def newstudent(a):  
  
 m=a  
 a = str(input("student first name: "))  
 b = str(input("student last name: "))  
 print("goning to execute")  
 mycursor.execute("SELECT COUNT(teacherid) FROM teacher")  
 k = mycursor.fetchall()  
 l=k[0][0]  
 if l==0:  
 l=1  
 print("executed")  
 # we are considering that teachers table has it alteast one teacher present  
 c=random.randint(0, l)  
 sql = "INSERT INTO student (pass,firstname, lastname,fullname,consellorid) VALUES ('1234','"+a+"','"+b+"','"+a+" "+b+"',"+str(c)+")"  
 mycursor.execute(sql)  
  
 sql="SELECT \* FROM student WHERE studentid=(SELECT max(studentid) FROM student)"  
 mycursor.execute(sql)  
 m=mycursor.fetchall()  
 print("student Username id for entering the portal : "+str(m[0][0]))  
 print("password for entering the portal : " + str(m[0][1]))  
 print("id of consellor assigned to you is:",l)  
  
def updateteacherinfo(a):  
 a=str(input("enter teacherid"))  
 b=str(input("please enter the new teacher name"))  
 c=str(input("please enter the new experience"))  
 d=str(input("please enter the new department"))  
 sql = "select \* from teacher where teacherid = " + a  
 mycursor.execute(sql)  
 k = mycursor.fetchall()  
 mycursor.execute("SHOW columns FROM teacher")  
 l = mycursor.fetchall()  
 print("before updation")  
 print("-----------------------------------")  
  
 for i in range(len(l)):  
 if i == 1:  
 continue  
 print(l[i][0], "=", k[0][i])  
 print("----------------------")  
 print("after updation")  
 print("-----------------------------------")  
  
 sql="update teacher set teachername ='{}',experience = {},department='{}' where teacherid={}".format(b,c,d,a)  
 mycursor.execute(sql)  
 sql = "select \* from teacher where teacherid = " + a  
 mycursor.execute(sql)  
 k = mycursor.fetchall()  
 for i in range(len(l)):  
 if i == 1:  
 continue  
 print(l[i][0], "=", k[0][i])  
 print("----------------------")  
  
  
def enterstudentmarks(a):  
 m = a  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
  
 mycursor = mydb.cursor()  
 while(1):  
 a = str(input("studentid: "))  
 try:  
 sql = "select \* from student where studentid =" + a  
 mycursor.execute(sql)  
 except:  
 print("no student is registered with that id")  
 continue  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
  
 mycursor = mydb.cursor()  
  
  
  
 sql= "select consellorid from student where studentid = " +a  
 mycursor.execute(sql)  
 z=mycursor.fetchall()  
 print(z[0][0])  
 print(m[0][0])  
 if(z[0][0]==m[0][0]):  
 try:  
  
 sql1 = "select \* from studentmarks where studentid=" + a  
  
 mycursor.execute(sql1)  
 z = mycursor.fetchall()  
 print(z)  
 print("the student marks are already uploaded")  
 break  
 except:  
 b = int(input("enter IA1 marks: "))  
 c = int(input("enter IA2 marks: "))  
 d = int(input("enter FA marks: "))  
 e = (((b + c) / 2) + d) / 2  
 sql = "INSERT INTO studentmarks (" + str(a) + "," + str(b) + "," + str(c) + " " + str(d) + "," + str(e) + ")"  
 mycursor.execute(sql)  
  
 break  
 else:  
 print("the student is not assign to you .. you can only add marks to the students who are only assigned to you")  
 print("try again")  
 break  
  
  
  
  
def updatestudentmarks\_T(a):  
 m = a  
 while (1):  
 a = str(input("studentid: "))  
 try:  
  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
 mycursor = mydb.cursor()  
 sql = "select \* from student where studentid =" + a  
 mycursor.execute(sql)  
 mydb = mysql.connector.connect(  
 host="localhost",  
 user="root",  
 passwd="Sumanth@89",  
 database="newdatabase"  
 )  
  
 mycursor = mydb.cursor()  
  
 sql = "select consellorid from student where studentid = " + a  
 mycursor.execute(sql)  
 z = mycursor.fetchall()  
 if (z[0][0] == m[0][0]):  
 b = int(input("enter new IA1 marks: "))  
 c = int(input("enter new IA2 marks: "))  
 d = int(input("enter new FA marks: "))  
 e = (((b + c) / 2) + d) / 2  
 sql = "update studentmarks set ia1marks = " + str(b) + " ,ia2marks = " + str(c) + " ,famarks= " + str(  
 d) + " ,average=" + str(e) + " where studentid =" + str(a)  
 mycursor.execute(sql)  
 sql = "select \* from studentmarks where studentid =" + a  
 mycursor.execute(sql)  
 y = mycursor.fetchall()  
 mycursor.execute("SHOW columns FROM studentmarks")  
 k = mycursor.fetchall()  
 for i in range(len(k)):  
 print(k[i][0],"=",y[0][i])  
 break  
 except:  
 print("no student is registered with that id")  
 continue  
  
  
 else:  
 print(  
 "the student is not assign to you .. you can only update marks to the students who are only assigned to you")  
 print("try again")  
 break  
  
  
  
  
def viewteacherinfo(a):  
 m=a  
 sql = "select \* from teacher where teacherid = " + str(m[0][0])  
 mycursor.execute(sql)  
 k = mycursor.fetchall()  
 mycursor.execute("SHOW columns FROM teacher")  
 l = mycursor.fetchall()  
 for i in range(len(l)):  
 if i == 1:  
 continue  
 print(l[i][0], "=", k[0][i])  
  
  
  
  
def viewstudent(a):  
  
 m=a  
 mycursor.execute("SHOW columns FROM student")  
 k = mycursor.fetchall()  
 print("the student informatiom is:")  
 print("------------")  
 for i in range(len(k)):  
 print(k[i][0],"=",m[0][i])  
 print("------------")  
  
  
  
  
  
def updatestudent(a):  
 m = a  
 mycursor.execute("SHOW columns FROM student")  
 k = mycursor.fetchall()  
  
 a=str(input("new first name: "))  
 b=str(input("new last name: "))  
 c=str(input("enter new password"))  
 sql="update student set firstname = '"+a+"',lastname = '"+b+"' ,pass= '"+c+"',fullname='"+a+" "+b+ "' where studentid ="+str(m[0][0])  
 mycursor.execute(sql)  
 mycursor.execute("select \* from student where studentid="+str(m[0][0]))  
  
  
 print("-------------")  
 print("oringinal info:")  
 for i in range(len(k)):  
 print(k[i][0],"=",m[0][i])  
  
 print("-------------")  
 print("updated info:")  
 z = mycursor.fetchall()  
 for i in range(len(k)):  
 print(k[i][0],"=",z[0][i])  
  
 print("------------------------------")  
  
  
  
  
def consellorinfo(y):  
 sql = "select \* from teacher where teacherid = " + str(y[0][5])  
 mycursor.execute(sql)  
 k = mycursor.fetchall()  
 mycursor.execute("SHOW columns FROM teacher")  
 l = mycursor.fetchall()  
 for i in range(len(l)):  
 if i==1:  
 continue  
 print(l[i][0],"=",k[0][i])  
  
  
def updatepassword(a):  
 while(1):  
 m = str(input("enter the old password"))  
 if (str(a[0][1]) == m):  
 print("password doesn't match")  
 print("try again")  
 else:  
 break  
 z=str(input("enter new password"))  
 y=str(input("re enter the new password"))  
 if(z==y):  
 sql="upadate {} set pass= '{}' where {}id={}".format(a[1],z,a[1],a[0][0])  
 mycursor.execute(sql)  
 print("password updated")  
  
 else:  
 print("re entered password doesn't match")  
 print("try again")  
  
  
  
  
  
# main program starts here  
print("prerequisites for processing this project is a working python ide and mysql server installined in your computer ")  
print("if this is the first time running this project login with admin portal using \n username : admin \n password:open@me")  
print("create some teacher portals and continue")  
print("----------------------------")  
n=input("press enter to contiue")  
print("----------------------------")  
while(1):  
 print("1.Admistrator")  
 print("2.Teacher")  
 print("3.student")  
 print("4.quit")  
 print("-----------------------------------------------------------------------")  
 a = int(input("enter your choice:"))  
 print("-----------------------------------------------------------------------")  
 if(a==4):  
 break  
 if a == 1:  
 k = login("admins")  
   
 while(1):  
  
 print("-----------------------------------------------------------------------")  
 print("1.create new teacher")  
 print("2.update teacher salary")  
 print("3.view student marks")  
 print("4.update student marks")  
 print("5.add new student")  
 print("6.update teacherinfo")  
 print("7.update password")  
 print("8.logout from admin portal")  
 print("-----------------------------------------------------------------------")  
 c1 = {1: newteacher, 2: updateteachersalary, 3: viewstudentmarks, 4: updatestudentmarks\_A,5:newstudent,6:updateteacherinfo,7:updatepassword}  
 z1 = int(input("enter your choice"))  
 if(z1==8):  
 break  
 print("----------------------------------------------")  
 try:  
 d1 = c1[z1](k)  
 print("----------------------------------------------")  
 op=input("press enter to continue")  
 except Exception as e:  
 print(e)  
 print("please enter the correct choice")  
  
  
  
  
 elif a == 2:  
 k = login("teacher")  
  
 while(1):  
  
 print("---------------------------------------------------------------------")  
 print("1.add new student")  
 print("2.enter student marks")  
 print("3.update student marks")  
 print("4.viewteacherinfo")  
 print("5.update password ")  
 print("6.logout from teacher portal")  
 print("---------------------------------------------------------------------")  
 c1 = {1: newstudent, 2: enterstudentmarks, 3: updatestudentmarks\_T ,4:viewteacherinfo,5:updatepassword}  
 z1 = int(input("enter your choice"))  
 print("-----------------------------------")  
 if(z1==6):  
 break  
 try:  
 d1 = c1[z1](k)  
 print("----------------------------------------------")  
 op = input("press enter to continue")  
 except Exception as e:  
 print(e)  
 print("please enter the correct choice")  
  
 elif a == 3:  
 k = login("student")  
   
 while(1):  
  
 print("---------------------------------------------------------------------")  
 print("1.view student info")  
 print("2.update student info")  
 print("3.view student marks")  
 print("4.view your consellor info")  
 print("5.update password")  
 print("6.logout from student portal")  
 print("-----------------------------------------------------------------------")  
 if (k == 5):  
 break  
 c = {1: viewstudent, 2: updatestudent, 3: viewstudentmarks, 4: consellorinfo,5:updatepassword}  
 z = int(input("enter your choice"))  
 print("-----------------------------------")  
 try:  
 d = c[z](k)  
 print("----------------------------------------------")  
 op = input("press enter to continue")  
 except Exception as e:  
 print(e)  
 print("please enter the right choice")  
  
  
 else:  
 print("enter the right choice ")