DMS PROJECT REPORT

Project Done By: Utsav Agarwal, Yash Agarwal

Section B

ICAS

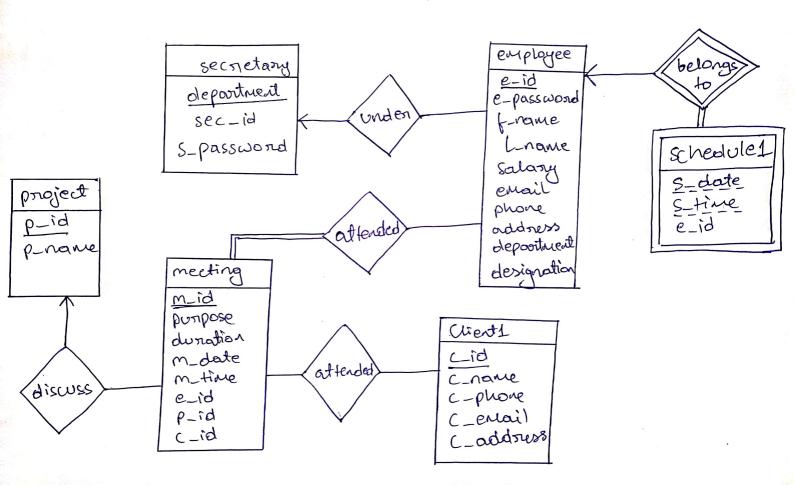
Registration Numbers: 181627116, 181627114

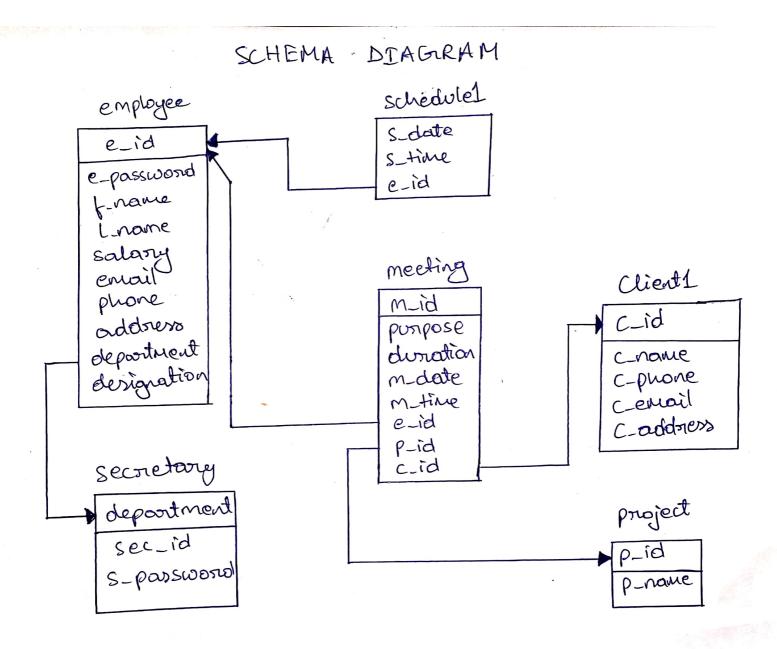
Subject: Database Management Systems

Languages Used:

- MySql
- Python

ER DIAGRAM





MySQL code

```
use db2;
create table secretary(sec_id numeric(7,0), s_password varchar(20), department varchar(20),
                                         primary key(department));
create table employee( e_id numeric(5,0), e_password varchar(20), f_name varchar(10),
                                         l_name varchar(10), salary numeric(10,0), email
varchar(40),
            phone numeric(10,0), address varchar(50), department varchar(20),
            designation varchar(25), primary key(e_id),
            foreign key(department) references secretary(department) on delete set null);
create table Client1(c_id numeric(5,0), c_name varchar(30), c_phone numeric(10,0),
                                        c_email varchar(40), c_address varchar(50), primary
key(c_id));
create table project(p_name varchar(30), p_id numeric(5,0), primary key(p_id));
create table schedule1(s_date date, s_time_time, e_id numeric(5,0));
create table meeting(m_id numeric(6,0), purpose varchar(50), duration varchar(7), e_id
numeric(5,0),
                                        m_date date, m_time time, p_id numeric(5,0), c_id
numeric(5.0), primary key(m id),
           foreign key(p_id) references project(p_id), foreign key(c_id) references Client1(c_id),
           foreign key(e_id) references employee(e_id) on delete set null);
insert into secretary values(1234567, 'Asdfgh', 'Power');
insert into secretary values(1234568, 'Bsdfgh', 'Public Relations');
```

```
insert into secretary values(1234569, 'Csdfgh', 'Business');
insert into employee values(11111, 'asd12', 'Chandan', 'Prabhu', 100000.0, 'cpr@tms.com',
9876543210, 'New Delhi', 'Business', 'Clerk');
insert into employee values(11112, 'asd13', 'Asif', 'Khan', 109600.0, 'akh@tms.com', 9876777210
, 'Mumbai', 'Public Relations', 'Executive Director');
insert into employee values(11113, 'asd14', 'Bhushan', 'Kumar', 365000.0, 'bku@tms.com',
9111543210, 'Chennai', 'Public Relations', 'Clerk');
insert into Client1 values(25251, 'Raj Kumar', 9297374545, 'rjk@gmail.com', 'Gurgaon');
insert into Client1 values(25252, 'Priya Prakash', 9296664545, 'prpk@gmail.com', 'Faridabad');
insert into Client1 values(25253, 'Jethalal', 7371212456, 'jeth@gmail.com', 'Gokuldham');
insert into project values ('Heavy Building Material', 55110);
insert into project values ('Bridge of Bombay', 55111);
insert into project values ('Dharavi Sports Complex', 55112);
insert into schedule1 values(2018-11-27, '10:00:00', 11112);
insert into schedule1 values(2018-11-27, '14:30:00', 11113);
insert into schedule1 values(2018-11-28, '09:25:00', 11111);
insert into meeting values(112230, 'Discussing Budget', '2 hours', 11111, 2018-11-28, '09:25:00',
NULL, 25253);
insert into meeting values(112231, 'Nominating Project Head', '1 hour', 11112, 2018-11-27,
'14:30:00', 55111, NULL);
insert into meeting values(112231, 'Nominating Project Head', '1 hour', 11113, 2018-11-27,
'14:30:00', 55111, NULL);
```

FRONT END (GUI) – CODE (python 3.7.4)

```
import pymysql
import time
import logging
import threading
from datetime import datetime
from tkinter import *
import tkinter as tk
db= pymysql.connect('localhost','Utsav','1234','db2')
cr=db.cursor()
parent=Tk()
label1=Label(parent,text="Emp ID")
label1.grid(row=2,column=1)
label2=Label(parent,text="Password")
label2.grid(row=3,column=1)
TextField1=Entry(parent)
TextField1.grid(row=2,column=4)
TextField2=Entry(parent)
```

```
TextField2.grid(row=3,column=4)
label3=Label(parent,text="")
label3.grid(row = 6, column= 2)
 ##LOGIN##
def login(lab,entry1,entry2):
 e_id=entry1.get()
 res2=entry2.get()
 cr=db.cursor()
 cr.execute('select e_password from employee where e_id = %d;' % int(e_id))
 for i in cr:
   if(i[0]==res2):
     mainBox(e_id)
   else:
     lab.configure(text='Incorrect Emp ID / password')
button1=Button(parent,text="login", command = lambda: login(label3,TextField1,TextField2))
button1.grid(row=8,column=1)
 ##SEC LOGIN##
def secLogin():
 secLog=Toplevel(parent)
```

```
label1=Label(secLog,text="Sec ID")
  label1.grid(row=2,column=1)
  label2=Label(secLog,text="Password")
  label2.grid(row=3,column=1)
  TextField1=Entry(secLog)
  TextField1.grid(row=2,column=4)
  TextField2=Entry(secLog)
  TextField2.grid(row=3,column=4)
  label3=Label(secLog,text="")
  label3.grid(row = 6, column= 2)
  but=Button(secLog, text="login", command= lambda:readInp(TextField1,TextField2,secLog))
  but.grid(row = 5, column = 2)
  secLog.mainloop()
def readInp(tF1,tF2,secLog):
  s_id=tF1.get()
  s_password=tF2.get()
  cr=db.cursor()
  cr.execute('select s_password from secretary where sec_id = %d;'%int(s_id))
  for i in cr:
    if i[0]==s_password:
      secMain(secLog)
    else:
      lab.configure(text='Incorrect Sec ID / password')
```

```
button2=Button(parent,text="Secretary Login", command= secLogin)
button2.grid(row=8,column=4)
 ##SEC MAIN##
def secMain(secLog):
 secLog.destroy()
 secMain = Toplevel(parent)
 mainBut1=Button(secMain,text='Check Schedule',command=lambda:checkSchedule())
 mainBut1.grid(row=1,column=1)
 mainBut2=Button(secMain,text='Schedule Meeting',command=lambda:scheduleMeeting())
 mainBut2.grid(row=1,column=2)
 mainBut3=Button(secMain,text='Cancel Meeting',command=lambda:cancel())
 mainBut3.grid(row=2,column=2)
 mainBut5=Button(secMain,text='Logout',command=lambda: logout(secMain))
 mainBut5.grid(row=3,column=5)
 mainBut4=Button(secMain,text='Create Exec Account',command= newBox)
```

```
mainBut4.grid(row=1,column=3)
  mainBut6=Button(secMain,text='Schedule Exec task',command= taskSch)
  mainBut6.grid(row=1,column=5)
  lab = Label(secMain, text = "* Always logout before quitting! *")
  lab.grid(row=3, column=2)
  secMain.mainloop()
def logout(box):
  box.destroy()
  parent.deiconify()
def cancel():
  cancelDet=Toplevel(parent)
  lab=Label(cancelDet, text = "Meeting ID")
  lab.grid(row=1,column=2)
  txtField=Entry(cancelDet)
  txtField.grid(row = 1, column = 4)
  canBut=Button(cancelDet,text="confirm",command= lambda: cr.execute("delete from meeting
where m_id = %d;",(int(txtField.get()))))
  canBut.grid(row = 3, column = 3)
  cr=db.cursor()
def taskSch():
  taskBox=Toplevel(parent)
  txtField1=Entry(taskBox)
```

```
txtField1.grid(row = 1, column = 2)
  txtField2=Entry(taskBox)
  txtField2.grid(row = 2, column = 2)
  txtField3=Entry(taskBox)
  txtField3.grid(row = 3, column = 2)
  lab1= Label(taskBox, text = 'Date')
  lab1.grid(row = 1, column =1)
  lab2= Label(taskBox, text = 'Time')
  lab2.grid(row = 2, column =1)
  lab3= Label(taskBox, text = 'Emp ID')
  lab3.grid(row = 3, column =1)
  taskBut=Button(taskBox,text='Confirm',command= lambda: taskSet(txtField1,txtField2,txtField3))
  taskBut.grid(row = 5, column= 2)
  taskBox.mainloop()
def taskSet(entry1,entry2,entry3):
  s_date=datetime.strptime(entry6.get(),'%y-%m-%d').date()
  s_time=datetime.strptime(entry7.get(),'%H:%M:%S').time()
  e_id=entry3.get()
  cr=db.cursor()
  cr.execute("insert into schedule1(s_date,s_time,e_id) values (%s,%s,%d);",(s_date,s_time,e_id))
def checkSchedule():
```

```
schedule=Toplevel(parent)
  schLab1=Label(schedule,text="")
  schLab1.grid(row=1,column=0)
  cr=db.cursor()
  cr.execute('delete from schedule1 where s_date < CURDATE();')
  cr.execute('delete from meeting where m_date < CURDATE();')</pre>
  schLab1.configure(text='You have '+str(cr.execute('select * from schedule1, meeting where
schedule1.s_date = CURDATE() and meeting.m_date=curdate();'))+' meetings and appointments
today')
  #scrollbar = tk.Scrollbar(schedule,orient='vertical')
  Lb = Listbox(schedule, width=50, height=20)
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
  Lb.grid()
  scBut1=Button(schedule,text="view all meetings",command = lambda: allEmpMeetings(Lb))
  scBut1.grid(row=3, column=0)
  scBut2=Button(schedule,text="view today's meetings",command = lambda:
todayEmpMeetings(Lb))
  scBut2.grid(row=5, column=0)
  mainBut2=Button(schedule,text='Schedule Meeting',command=lambda:scheduleEmpMeeting(Lb))
  mainBut2.grid(row=4,column=0)
  schedule.mainloop()
def allMeetings(Lb):
  Lb.delete(0,'end')
  cr.execute('select * from schedule1;')
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
```

```
def todayMeetings(Lb):
  Lb.delete(0,'end')
  cr.execute('select * from schedule1 where s_date = CURDATE();')
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
def scheduleMeeting():
  secSchMeeting=Tk()
  txtField1=Entry(secSchMeeting)
  txtField1.grid(row = 2, column = 2)
  txtField2=Entry(secSchMeeting)
  txtField2.grid(row = 4, column = 2)
  txtField3=Entry(secSchMeeting)
  txtField3.grid(row = 6, column = 2)
  txtField4=Entry(secSchMeeting)
  txtField4.grid(row = 8, column = 2)
  txtField5=Entry(secSchMeeting)
  txtField5.grid(row = 10, column = 2)
  txtField6=Entry(secSchMeeting)
  txtField6.grid(row = 12, column = 2)
  txtField7=Entry(secSchMeeting)
  txtField7.grid(row = 14, column = 2)
  lab1= Label(secSchMeeting, text = 'Meeting ID')
  lab1.grid(row = 2, column =1)
  lab2= Label(secSchMeeting, text = 'Project ID')
```

```
lab2.grid(row = 4, column =1)
      lab3= Label(secSchMeeting, text = 'Client ID')
      lab3.grid(row = 6, column =1)
      lab4= Label(secSchMeeting, text = 'Purpose')
      lab4.grid(row = 8, column =1)
      lab5= Label(secSchMeeting, text = 'Duration(mins)')
      lab5.grid(row = 10, column =1)
      lab6= Label(secSchMeeting, text = 'Date')
      lab6.grid(row = 12, column =1)
      lab7= Label(secSchMeeting, text = 'Time')
      lab7.grid(row = 14, column =1)
      but1= Button(secSchMeeting, text = 'make appointment',command =
lambda: make Appointment (sec Sch Meeting, txt Field 1, txt Field 2, txt Field 3, txt Field 4, txt Field 5, txt Field 6, txt Field 6,
xtField7))
      but1.grid(row= 16, column = 1)
      secSchMeeting.mainloop()
def makeAppointment(box,entry1,entry2,entry3,entry4,entry5,entry6,entry7):
      m_id=int(entry1.get())
      p_id=int(entry2.get())
      c_id=int(entry3.get())
      purpose=entry4.get()
      duration=int(entry5.get())
      m_date=datetime.strptime(entry6.get(),'%y-%m-%d').date()
      m_time=datetime.strptime(entry7.get(),'%H:%M:%S').time()
```

```
cr.execute('insert into meeting(m_id,p_id,c_id,purpose,duration,m_date,m_time)
values(%d,%d,%d,%s,%d,%s,%s);', (m_id,p_id,c_id,purpose,duration,m_date,m_time)) ## << I add
client in sql and code here
  x=Toplevel(parent)
  lab = Label(x, text='Meeting Scheduled')
  lab.grid(row = 1 , column = 2)
  butConf=Button(x,text = 'ok', command = lambda :ok(x))
  butConf.grid(row=2 , column =2)
  x.mainloop()
def ok(x):
  x.destroy()
  ##EMP SIGNUP##
def newBox():
  box = Toplevel(parent)
  lab1=Label(box,text="E ID")
  lab1.grid(row=2,column=1)
  lab2=Label(box,text="Password")
  lab2.grid(row=3,column=1)
```

lab3=Label(box,text="First Name")

```
lab3.grid(row=4,column=1)
lab4=Label(box,text="Last Name")
lab4.grid(row=5,column=1)
lab5=Label(box,text="Salary")
lab5.grid(row=6,column=1)
lab6=Label(box,text="Email")
lab6.grid(row=7,column=1)
lab7=Label(box,text="Phone No.")
lab7.grid(row=8,column=1)
lab8=Label(box,text="Address")
lab8.grid(row=9,column=1)
lab9=Label(box,text="Department")
lab9.grid(row=10,column=1)
lab10=Label(box,text="Designation")
lab10.grid(row=11,column=1)
lab11=Label(box,text="")
lab11.grid(row=13,column=2)
Text1=Entry(box)
Text1.grid(row=2,column=4)
Text2=Entry(box)
Text2.grid(row=3,column=4)
Text3=Entry(box)
Text3.grid(row=4,column=4)
Text4=Entry(box)
Text4.grid(row=5,column=4)
Text5=Entry(box)
Text5.grid(row=6,column=4)
Text6=Entry(box)
Text6.grid(row=7,column=4)
Text7=Entry(box)
```

```
Text7.grid(row=8,column=4)
  Text8=Entry(box)
  Text8.grid(row=9,column=4)
  Text9=Entry(box)
  Text9.grid(row=10,column=4)
  Text10=Entry(box)
  Text10.grid(row=11,column=4)
  but=Button(box,text="confirm", command=
lambda:readInpE(box,Text1,Text2,Text3,Text4,Text5,Text6,Text7,Text8,Text9,Text10,lab11))
  but.grid(row=13,column=3)
  box.mainloop()
def readInpE(box,entry1,entry2,entry3,entry4,entry5,entry6,entry7,entry8,entry9,entry10,lab11):
  e_id=int(entry1.get())
  e_password=str(entry2.get())
  f_name=str(entry3.get())
  l_name=str(entry4.get())
  salary=int(entry5.get())
  email=str(entry6.get())
  phone=int(entry7.get())
  address=str(entry8.get())
  department=str(entry9.get())
  designation=str(entry10.get())
  cr=db.cursor()
  cr.execute('insert into
Employee(e_id,e_password,f_name,l_name,salary,email,phone,address,department,designation)
values(%d,%s,%s,%s,%d,%s,%d,%s,%s,%s);',(e_id,e_password,f_name,l_name,salary,email,phone,ad
dress, department, designation))
  lab11.configure(text='Registerd')
  db.commit()
```


##EMP MAIN##

```
def mainBox(e_id):
 parent.withdraw()
 mainBox = Toplevel(parent)
 mainBut1=Button(mainBox,text='Check Schedule',command=lambda:checkEmpSchedule(e_id))
 mainBut1.grid(row=1,column=1)
 mainBut2=Button(mainBox,text='Schedule
Meeting',command=lambda:scheduleEmpMeeting(e_id))
 mainBut2.grid(row=1,column=2)
 mainBut2=Button(mainBox,text='Schedule Task',command=lambda:taskSch())
 mainBut2.grid(row=1,column=3)
 mainBut3=Button(mainBox,text='Cancel Meeting',command=lambda:cancelEmp(e_id))
 mainBut3.grid(row=2,column=2)
 mainBut4=Button(mainBox,text='Logout',command=lambda:Logout(mainBox))
 mainBut4.grid(row=2,column=3)
 lab = Label(mainBox, text = "* Always logout before quitting! *")
 lab.grid(row=3, column=2)
 mainBox.mainloop()
```

```
def Logout(box):
  box.destroy()
  parent.deiconify()
def checkEmpSchedule(e_id):
  schedule=Toplevel(parent)
  schLab1=Label(schedule,text="")
  schLab1.grid(row=1,column=0)
  cr=db.cursor()
  cr.execute('delete from schedule1 where s_date < CURDATE();')
  schLab1.configure(text='You have '+str(cr.execute('select * from schedule1, meeting where
schedule1.s_date = CURDATE() and meeting.m_date=curdate() and meeting.e_id = %d and
schedule1.e_id = %d;',(e_id,e_id)))+' meetings today')
  Lb = Listbox(schedule, width=50, height=20)
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
  Lb.grid()
  scBut1=Button(schedule,text="view all meetings",command = lambda: allEmpMeetings(e_id,Lb))
  scBut1.grid(row=3, column=0)
  scBut2=Button(schedule,text="view today's meetings",command = lambda:
todayEmpMeetings(e_id,Lb))
  scBut2.grid(row=5, column=0)
  mainBut2=Button(schedule,text='Schedule
Meeting',command=lambda:scheduleEmpMeeting(e_id,Lb))
  mainBut2.grid(row=4,column=0)
  schedule.mainloop()
def allEmpMeetings(e_id,Lb):
```

```
Lb.delete(0,'end')
  cr.execute('select * from schedule1 where e_id= %d;',(e_id))
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
def todayEmpMeetings(e_id,Lb):
  Lb.delete(0,'end')
  cr.execute('select * from schedule1 where s_date = CURDATE() and e_id= %d;',(e_id))
  x=0
  for i in cr:
    x=x+1
    Lb.insert(x,i)
def cancelEmp(e_id):
  cancelDet=Toplevel(parent)
  lab=Label(cancelDet, text = "Meeting ID")
  lab.grid(row=1,column=2)
  txtField=Entry(cancelDet)
  txtField.grid(row = 1, column = 4)
  canBut=Button(cancelDet,text="confirm",command= lambda: cr.execute("delete from meeting
where m_id = %d and e_id = %d;",(int(txtField.get()),e_id)))
  canBut.grid(row = 3, column = 3)
  cr=db.cursor()
```

```
def scheduleEmpMeeting(e_id):
  secSchMeeting=Tk()
  txtField1=Entry(secSchMeeting)
  txtField1.grid(row = 2, column = 2)
  txtField2=Entry(secSchMeeting)
  txtField2.grid(row = 4, column = 2)
  txtField3=Entry(secSchMeeting)
  txtField3.grid(row = 6, column = 2)
  txtField4=Entry(secSchMeeting)
  txtField4.grid(row = 8, column = 2)
  txtField5=Entry(secSchMeeting)
  txtField5.grid(row = 10, column = 2)
  txtField6=Entry(secSchMeeting)
  txtField6.grid(row = 12, column = 2)
  txtField7=Entry(secSchMeeting)
  txtField7.grid(row = 14, column = 2)
  lab1= Label(secSchMeeting, text = 'Meeting ID')
  lab1.grid(row = 2, column =1)
  lab2= Label(secSchMeeting, text = 'Project ID')
  lab2.grid(row = 4, column =1)
  lab3= Label(secSchMeeting, text = 'Client ID')
  lab3.grid(row = 6, column =1)
  lab4= Label(secSchMeeting, text = 'Purpose')
  lab4.grid(row = 8, column =1)
  lab5= Label(secSchMeeting, text = 'Duration(mins)')
  lab5.grid(row = 10, column =1)
  lab6= Label(secSchMeeting, text = 'Date')
  lab6.grid(row = 12, column =1)
```

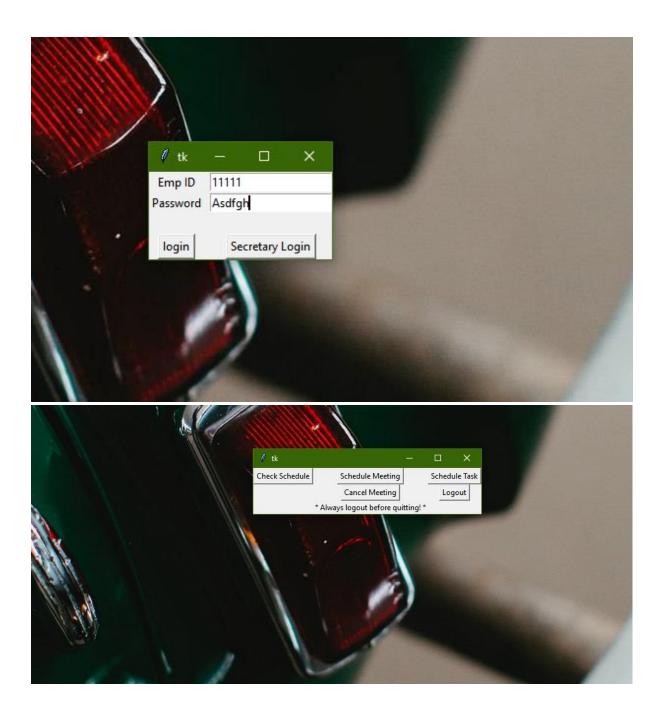
```
lab7= Label(secSchMeeting, text = 'Time')
  lab7.grid(row = 14, column =1)
  but1= Button(secSchMeeting, text = 'make appointment',command =
lambda:makeAppointment(secSchMeeting,txtField1,txtField2,txtField3,txtField4,txtField5,txtField5,txtField6,t
xtField7,e_id))
  but1.grid(row= 16, column = 1)
  secSchMeeting.mainloop()
  def makeEmpAppointment(box,entry1,entry2,entry3,entry4,entry5,entry6,entry7,e_id):
  m_id=int(entry1.get())
  p_id=int(entry2.get())
  c_id=int(entry3.get())
  purpose=entry4.get()
  duration=int(entry5.get())
  m_date=datetime.strptime(entry6.get(),'%y-%m-%d').date()
  m_time=datetime.strptime(entry7.get(),'%H:%M:%S').time()
  cr.execute('insert into meeting(m_id,p_id,c_id,e_id,purpose,duration,m_date,m_time)
values(%d,%d,%d,%d,%s,%d,%s,%s);', (m_id,p_id,c_id,e_id,purpose,duration,m_date,m_time)) ##
<< I add client in sql and code here
  x=Toplevel(parent)
  lab = Label(x, text='Meeting Scheduled')
  lab.grid(row = 1, column = 2)
  butConf=Button(x,text = 'ok', command = lambda :ok(x))
  butConf.grid(row=2 , column =2)
  x.mainloop()
parent.mainloop()
```

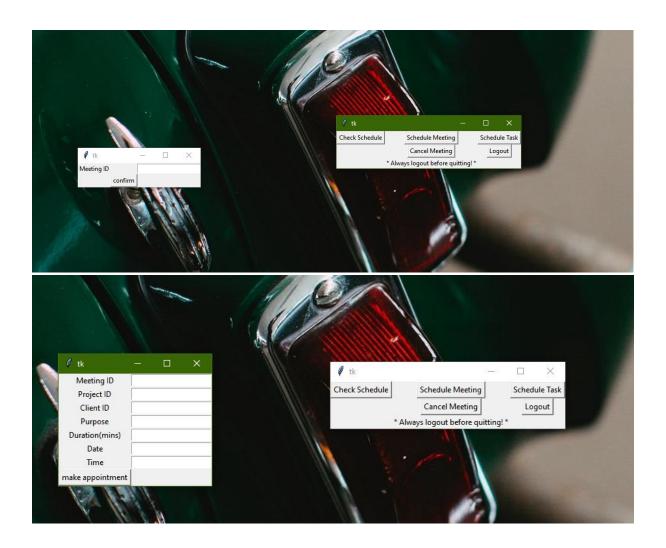
Queries utilized

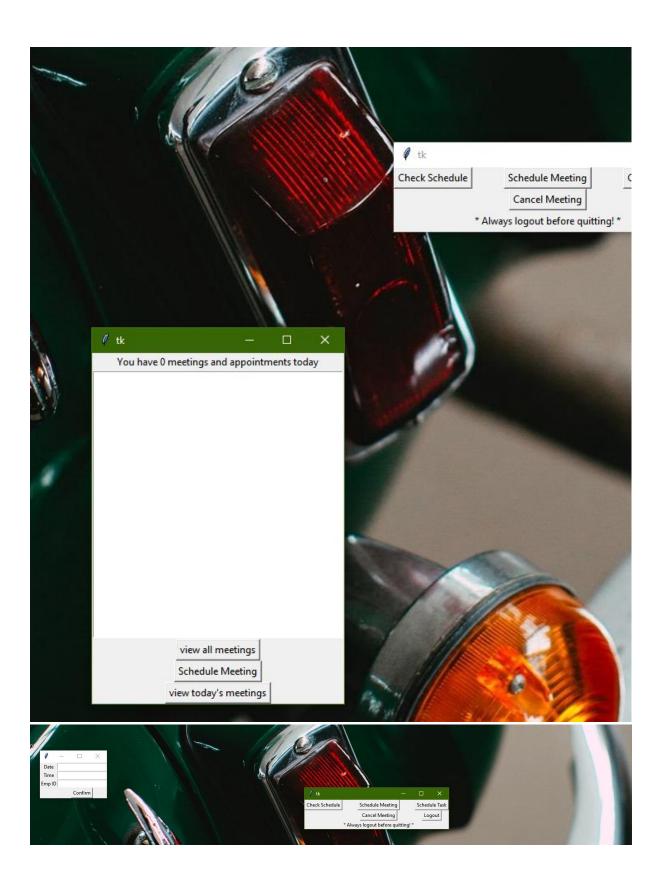
```
select e_password from employee where e_id = %d;
select s_password from secretary where sec_id = %d;
delete from meeting where m_id = %d;
insert into schedule1(s_date,s_time,e_id) values (%s,%s,%d);
select * from schedule1, meeting where schedule1.s_date = CURDATE() and meeting.m_date=CURDATE() and meeting.e_id=%d and meeting.e_id=%d;
select * from schedule1 where s_date = CURDATE();
select * from schedule1 where s_date = CURDATE() and e_id= %d;
delete from meeting where m_id = %d and e_id = %d;
insert into meeting(m_id,p_id,c_id,e_id,purpose,duration,m_date,m_time) values(%d,%d,%d,%d,%d,%s,%d,%s,%s);
```

WORKING PROOF

(employee)







(secretary)



