REPORT FOR LPG BOOKING SYSTEM

As a project work for Course

PYTHON PROGRAMMING (INT 213)

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School:	School of Computer Science and Engineering
Name of the University:	Lovely Professional University
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Lovely Professional University Jalandhar, Punjab.

GITHUB LINK:-

https://github.com/anonymouslyfadeditzme/LPG_Booking_System_Connected_with_SQLDatabase

ABSTRACT :-

To ensure a simple and secure environment for the consumer and the agencies We are making the 'LPG Booking System'. Through this system, We have tried to build a GUI based System for the agency so as to minimise their work and let the System handle the records. It also makes it easier for the agency to check the number as a person has booked in a specific amount of time and the person who is booking the gas is authenticated or not whether he/she has bought the refill within the time period, to get his gas booked.

It also prevents any error while registering the gas as if it's done manually there is always a chance of omission and oversight. It also helps the agency to move from a manual system of registering the data to storing it online which digitized the agency and reduces their overall carbon footprint.

It will avoid the agency from spending a huge amount of their budget in maintaining the manual records and updating them from time to time. As the customer moves from another city its records can be easily transferred or deleted from the record. All the operations will become easier as all information that is provided from the system is very reliable and a high amount of data space is used.

It also influences the user registration for the booking and the transaction process as it has a simple interface for booking the system through which agency staff can easily book the gas cylinder after that a payment process is also secured. The determination of the system is to provide the user with simple and secure software which is understandable, easier to store and search information.

ACKNOWLEDGEMENT :- We would like to thank our mentor for his advice and inputs on this project. Many thanks to our friends, who spent countless hours to listen and provide feedbacks to improve our project and helped us with source for making this project.

Table of Contents:-

INTRODUCTION:-

i) Context:-

This project has been done as part of my course (INT 213) at Lovely Professional University. Supervised by Ms. Upinder Kaur, We had sufficient time to fulfil the requirements in order to succeed the module.

ii) Motivations:-

Talking about the current system which presently used in the institutes is basically manually working or even if it is computerized restricted to a place or building thus all work of maintenance is also done in the same building. This creates a very hectic procedure to manage as everything is on spreadsheets, file, and binders. This kind of system does not only require a lot of human resources but also budget for maintaining them and stationery required. So, I thought of making an computerized based system through which these problems can be solved. The customer's name, address, last date of delivery are all maintained in the database and bill is also generated online so the manual process of recording and billing is done easily without any paperwork.

So, by this project, the process of ordering, billing, and stock maintenance for a gas agency can be processed easily. In the manual system if a customer leaves the town, then the agency has to find the record in the binders or spreadsheet which will consume a lot of time and resources. It also provides the ease to delete and update the record also.

iii) Idea:-

We always wanted to make a project which can solve any real life problem and help people in some or the other way so to design a GAS Booking System was a perfect Model to showcase the learnings which the course imparted us. Moreover, the features which the system has already motivated me enough to try something new and work in bright direction.

TEAM MEMBERS:-

Aditya Kumar Singh

Contributions:-

1. Coding (joined)
2. GUI
3. Linking with My SQLDatabase

Manjot Singh

Contributions:-

1. Coding (joined)
2. GUI
3. Report & PPT

LIBRARIES :-

Tkinter :-

Tkinter is the standard GUI library for Python. Python when combined with Tkinter provides a fast and easy way to create GUI applications. Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit.

Messagebox from tkinter:-

TkinterMessagebox is a module in python which provides a different set of dialogues that are used to display message boxes, showing errors or warnings, widgets to select files or change colors which is a pop-up box with a relevant message being displayed. Here, it's used to display several messages when a customer is successfully added or deleted or when a booking is done successfully and many more.

Mysql.connector :-

MySQL.Connector enables Python programs to access MySQL databases, using an API that is compliant with the Python Database API Specification. It is written in pure Python and does not have any dependencies except for the Python Standard Library.

Image,ImageTk from PIL :-

The imageTk module contains support to create and modify TkinterBitmapImage and PhotoImage objects from PIL images.

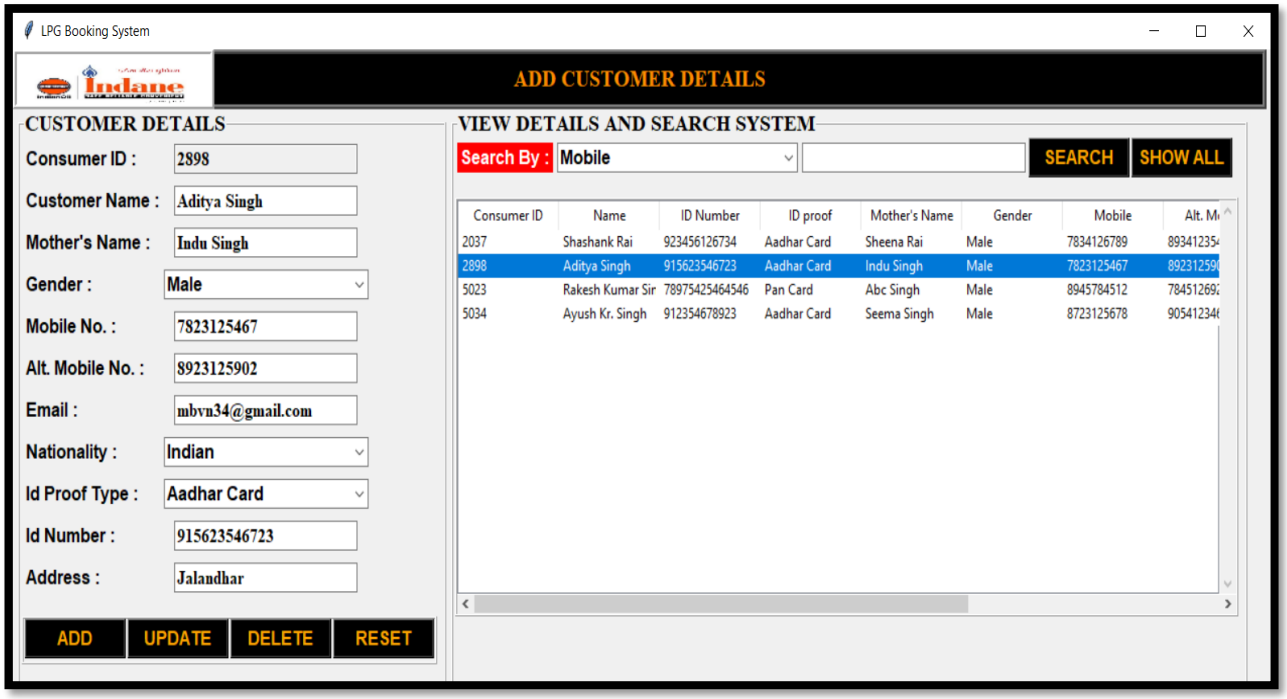
Ttk from tkinter:-

The tkinter. ttk module provides access to the Tk themed widget set, introduced in Tk 8.5. The basic idea for tkinter. ttk is to separate, to the extent possible, the code implementing a widget's behaviour from the code implementing its appearance.

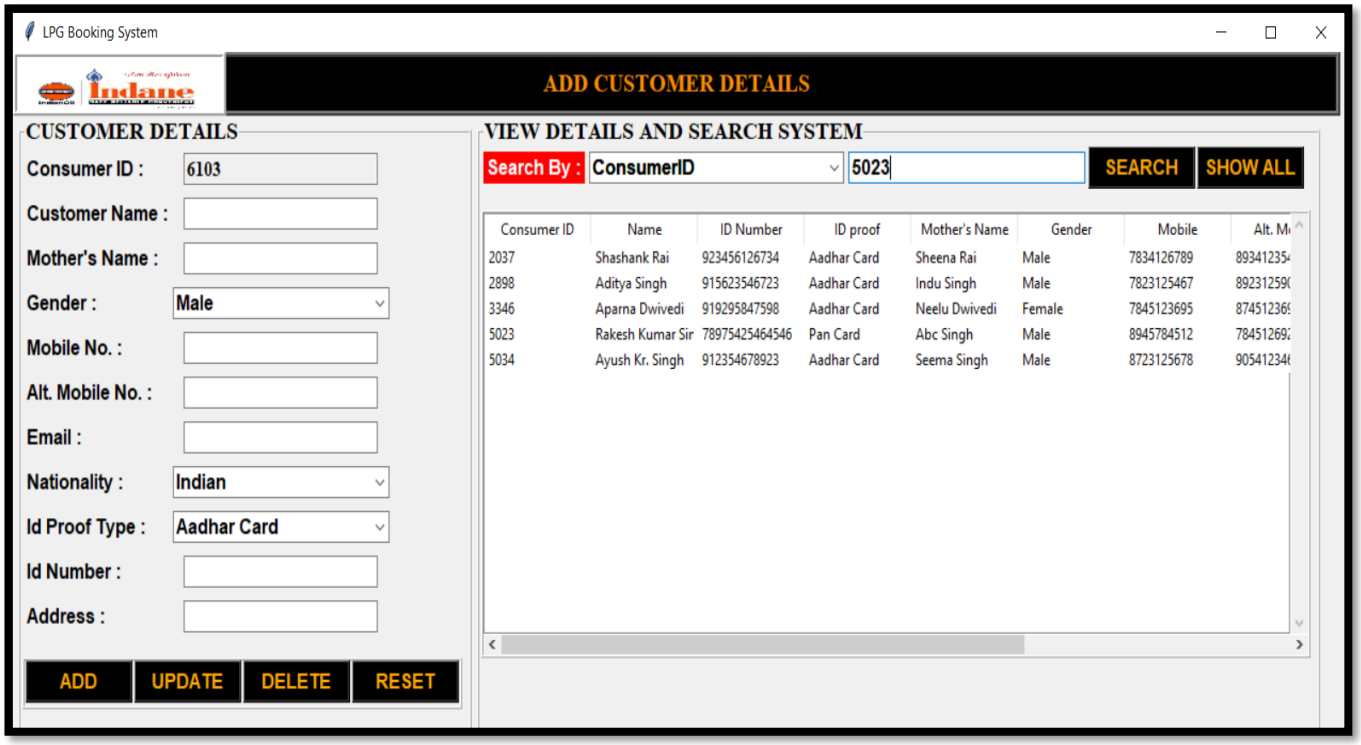
SCREENSHOTS:-

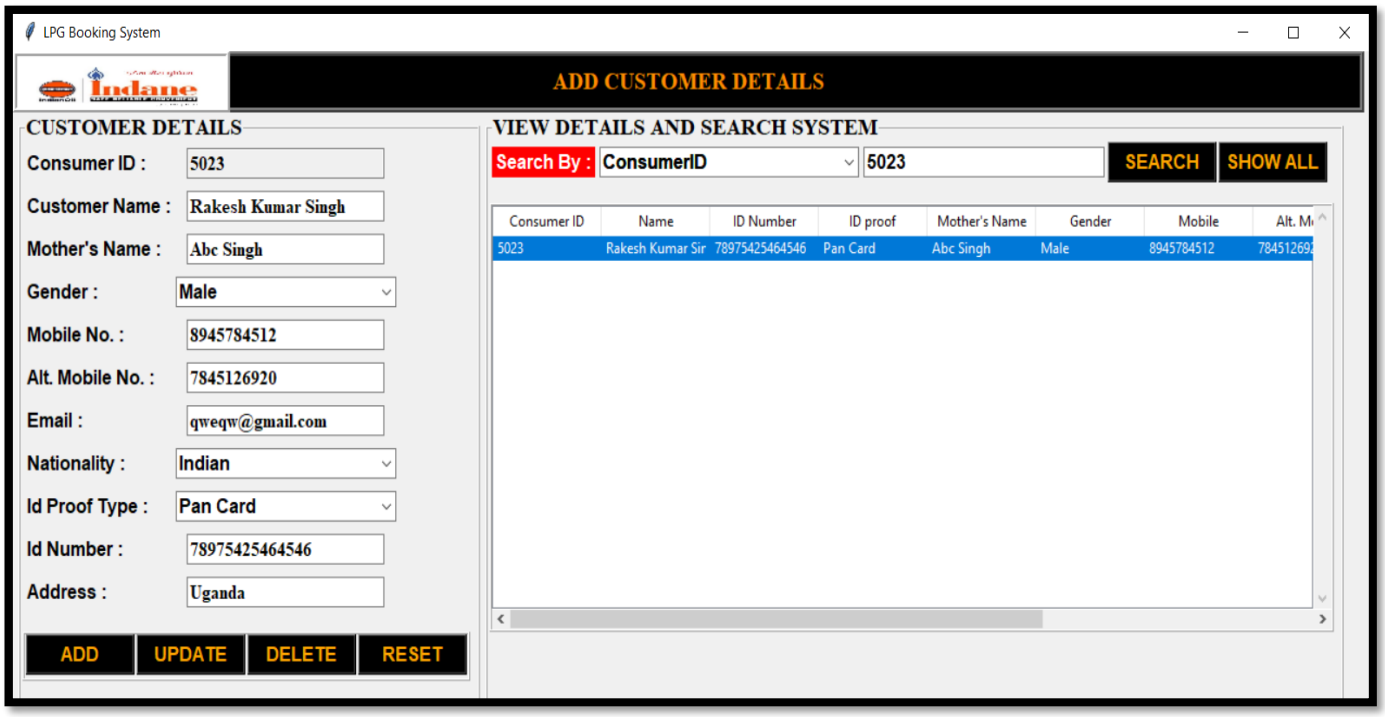
1) Main Page:-

2) Add Customer Page:-

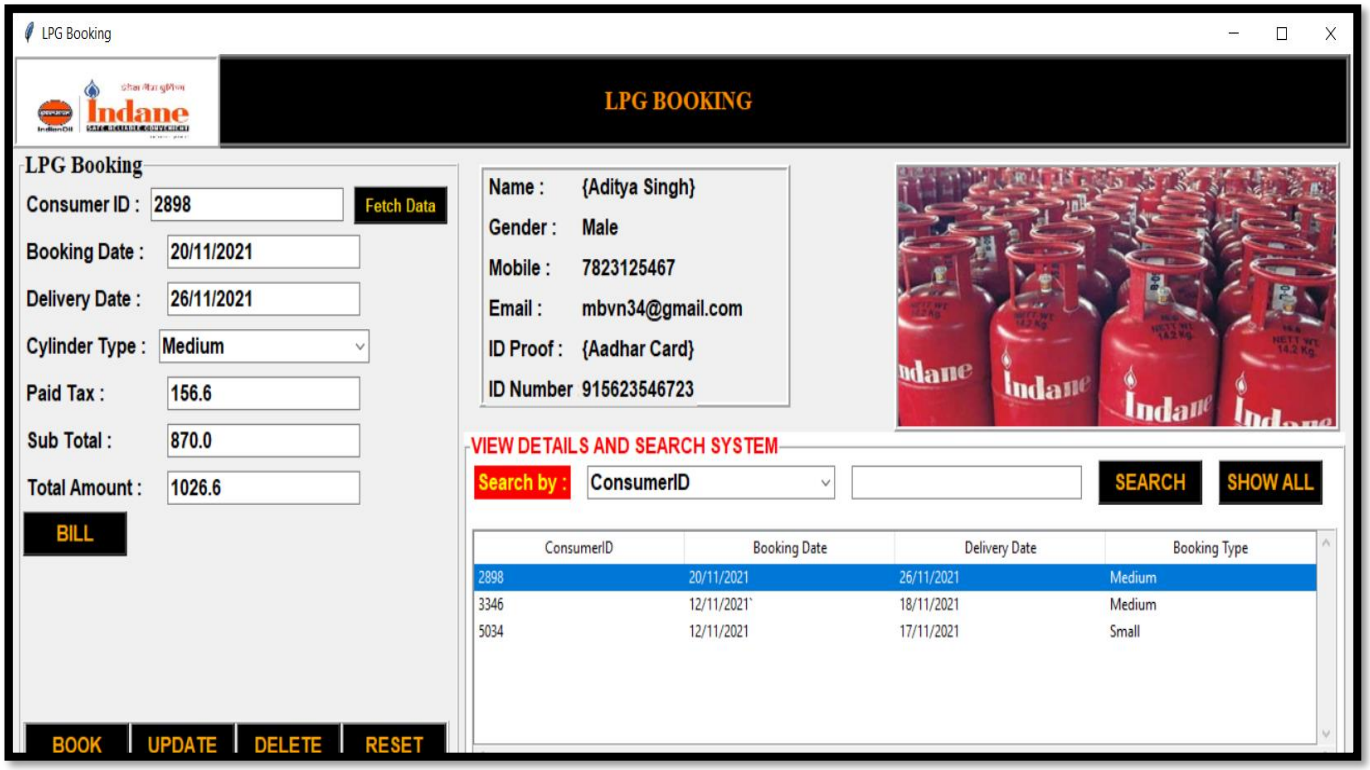


3) Search Customer :-

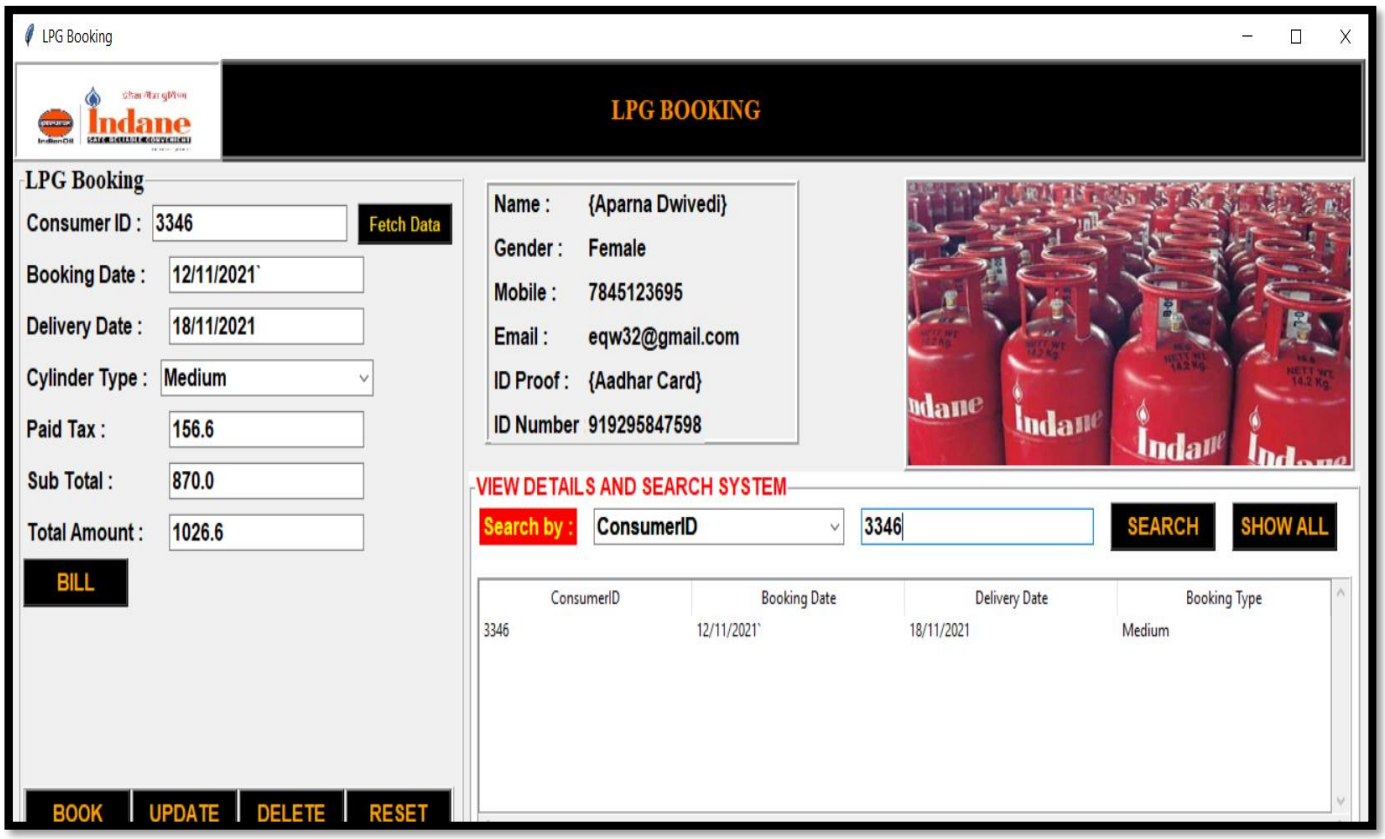




4) Booking Page:-

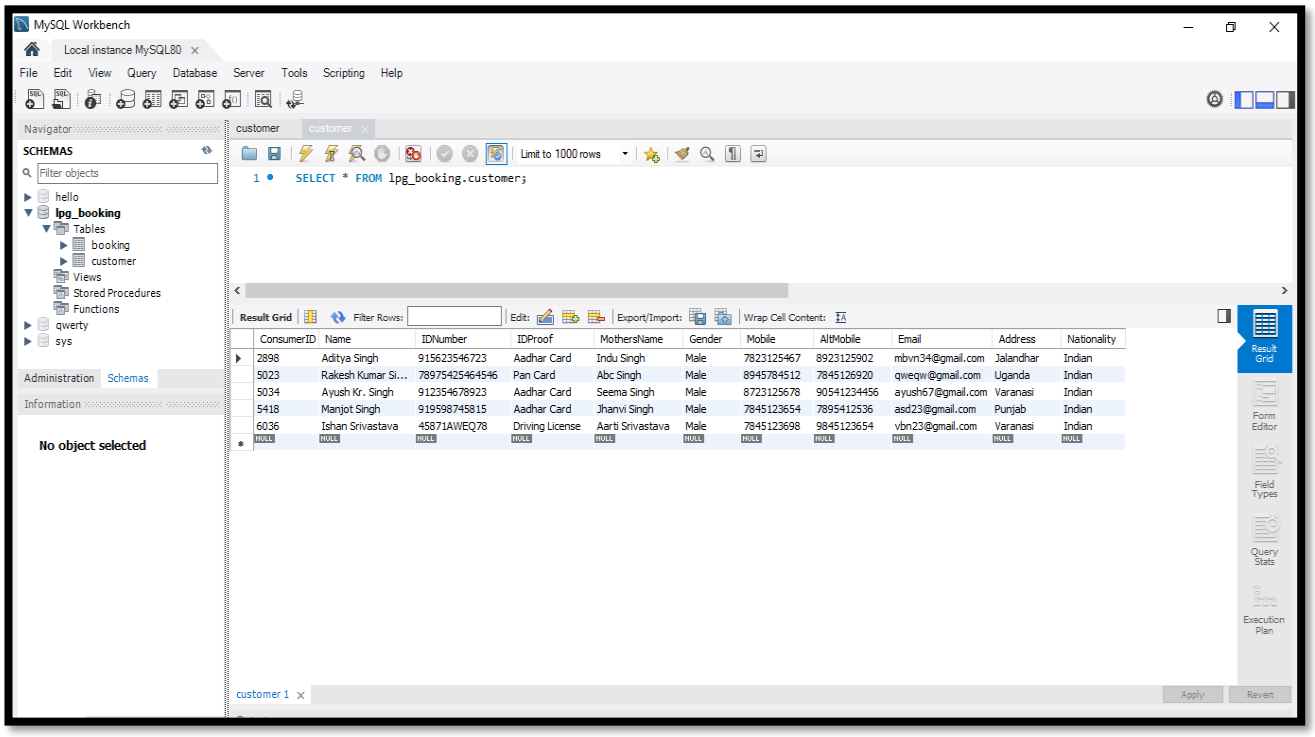


Booking Search using Consumer ID:-

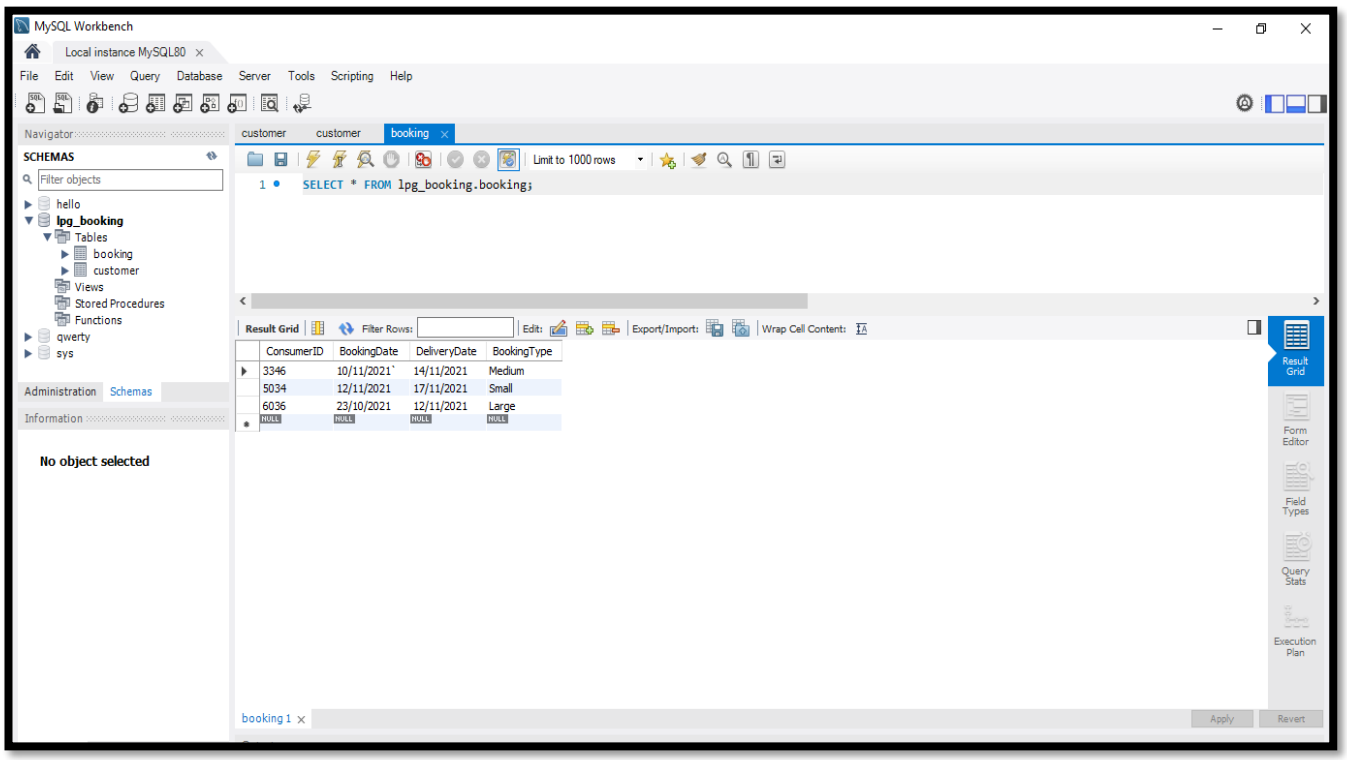


Database Screenshots:-

1) Customer Records:-



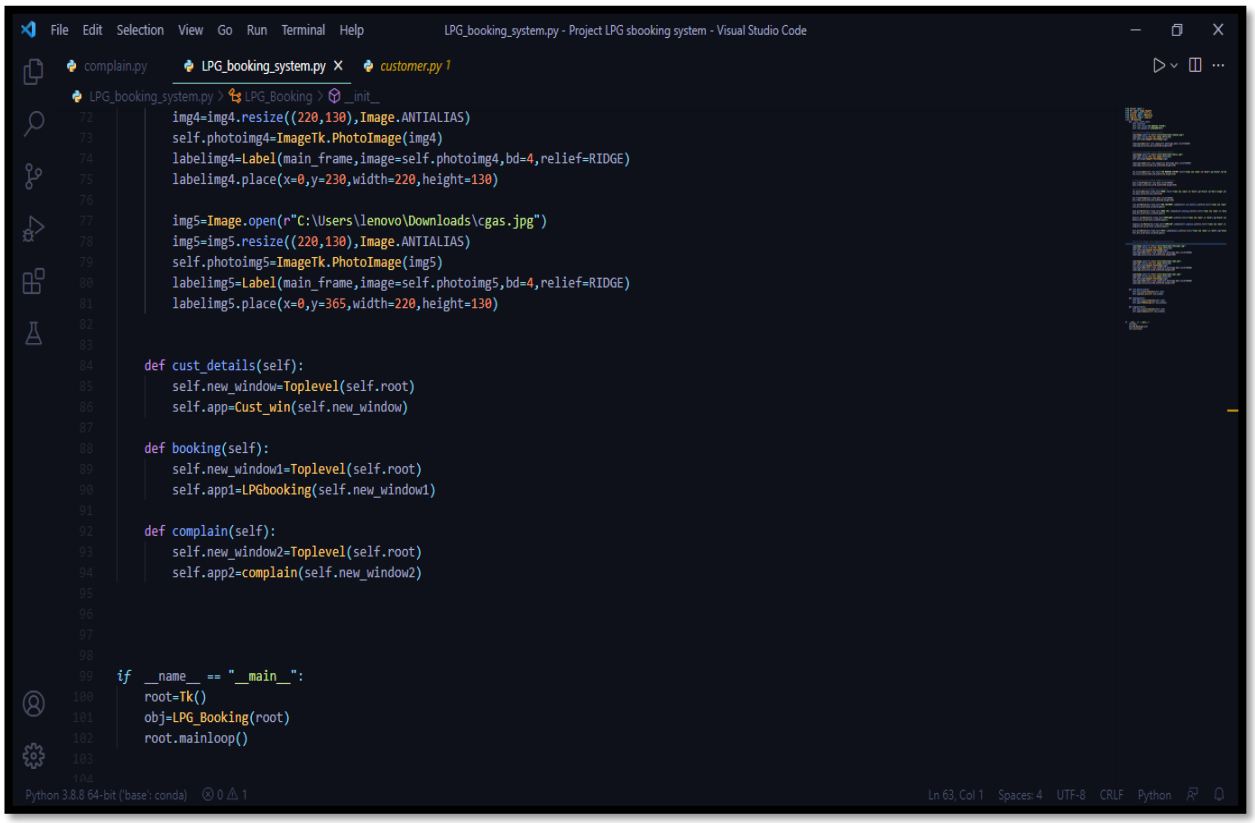
2) Booking Records:-



Code Snippets:-

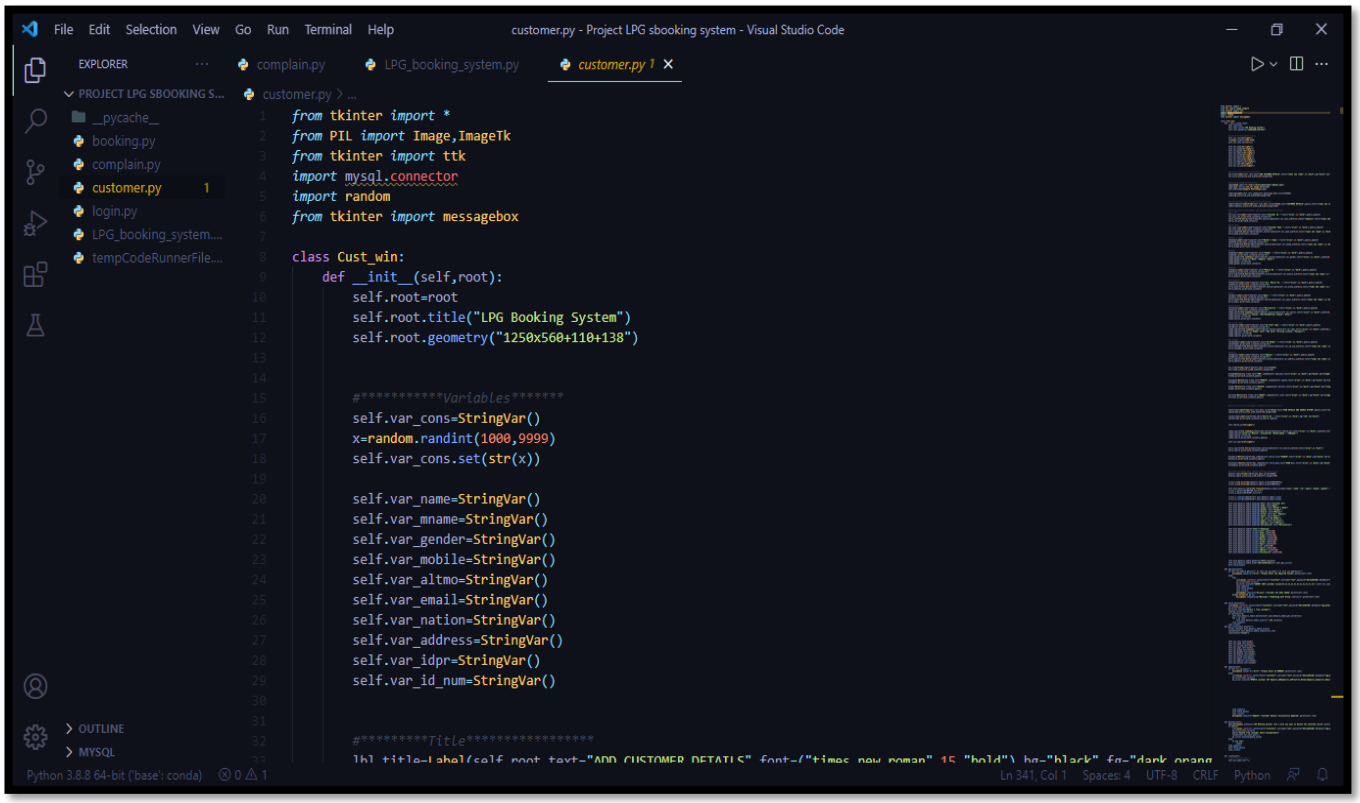
1) Main page:-

```python
from tkinter import *
from PIL import Image,ImageTk
from customer import Cust_win
from booking import LPGbooking
from complain import complain
class LPG_Booking:
    def __init__(self,root):
        self.root=root
        self.root.title("LPG BOOKING SYSTEM")
        self.root.geometry("1550x800+0+0")

        #************LOGO***************
        img1=Image.open(r"C:\Users\lenovo\Downloads\indane1.png")
        img1=img1.resize((200,140),Image.ANTIALIAS)
        self.photoimg1=ImageTk.PhotoImage(img1)

        labelimg=Label(self.root,image=self.photoimg1,bd=4,relief=RIDGE)
        labelimg.place(x=0,y=0,width=200,height=140)


        #**************Right corner Modiji***********
        img2=Image.open(r"C:\Users\lenovo\Downloads\modiji.jpg")
        img2=img2.resize((200,140),Image.ANTIALIAS)
        self.photoimg2=ImageTk.PhotoImage(img2)

        labelimg1=Label(self.root,image=self.photoimg2,bd=4,relief=RIDGE)
        labelimg1.place(x=1350,y=0,width=200,height=140)


        lbl_title=Label(self.root,text="LPG BOOKING SYSTEM",font=("times new roman",40,"bold"),bg="black",fg="dark orange",bd=4,relief=RIDGE)
        lbl_title.place(x=202,y=0,width=1148,height=140)
```

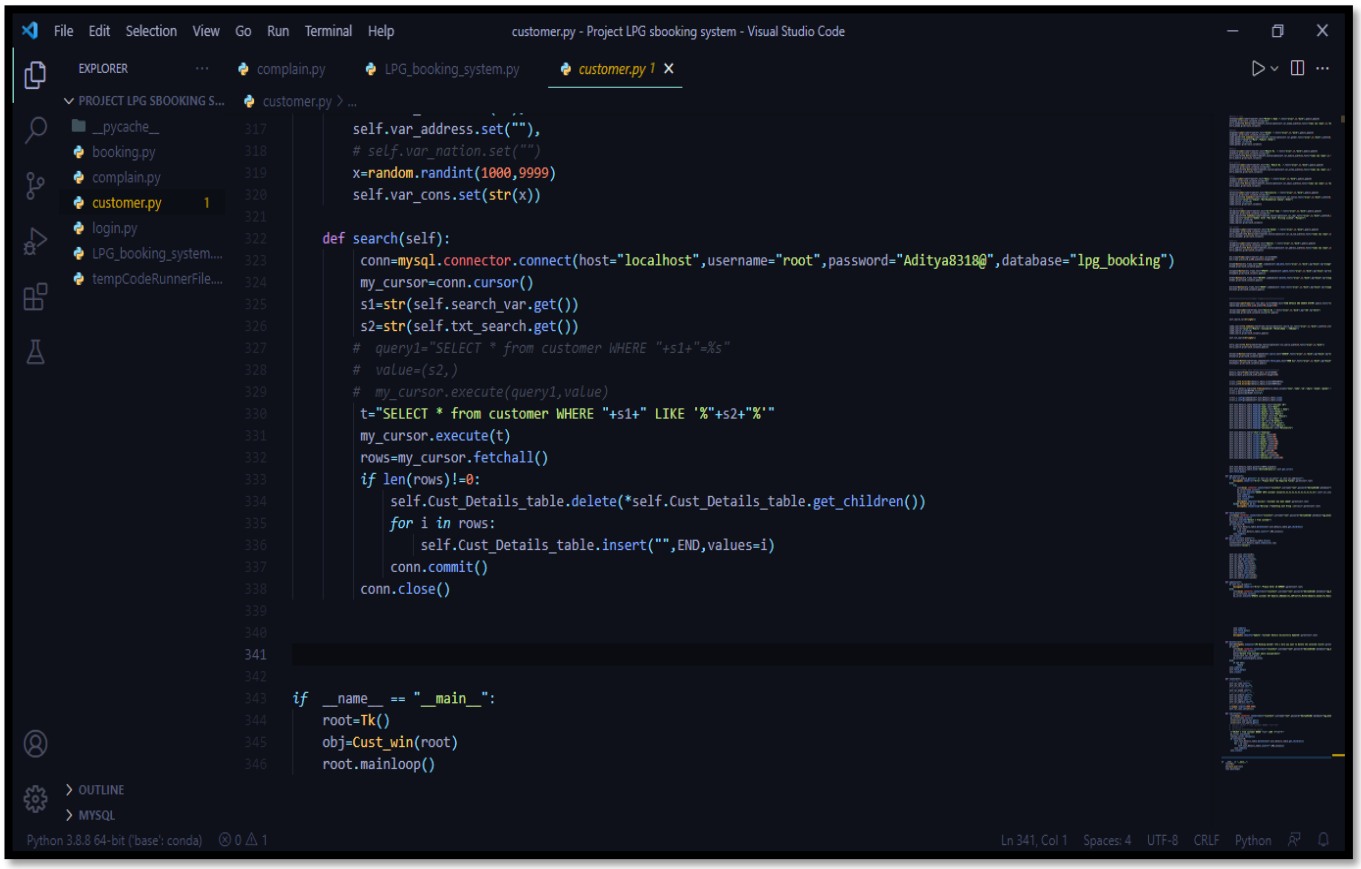


```python
        img4=img4.resize((220,130),Image.ANTIALIAS)
        self.photoimg4=ImageTk.PhotoImage(img4)
        labelimg4=Label(main_frame,image=self.photoimg4,bd=4,relief=RIDGE)
        labelimg4.place(x=0,y=230,width=220,height=130)

        img5=Image.open(r"C:\Users\lenovo\Downloads\cgas.jpg")
        img5=img5.resize((220,130),Image.ANTIALIAS)
        self.photoimg5=ImageTk.PhotoImage(img5)
        labelimg5=Label(main_frame,image=self.photoimg5,bd=4,relief=RIDGE)
        labelimg5.place(x=0,y=365,width=220,height=130)


    def cust_details(self):
        self.new_window=Toplevel(self.root)
        self.app=Cust_win(self.new_window)

    def booking(self):
        self.new_window1=Toplevel(self.root)
        self.app1=LPGbooking(self.new_window1)

    def complain(self):
        self.new_window2=Toplevel(self.root)
        self.app2=complain(self.new_window2)



if __name__ == "__main__":
    root=Tk()
    obj=LPG_Booking(root)
    root.mainloop()
```

2) Add Customer Page:-

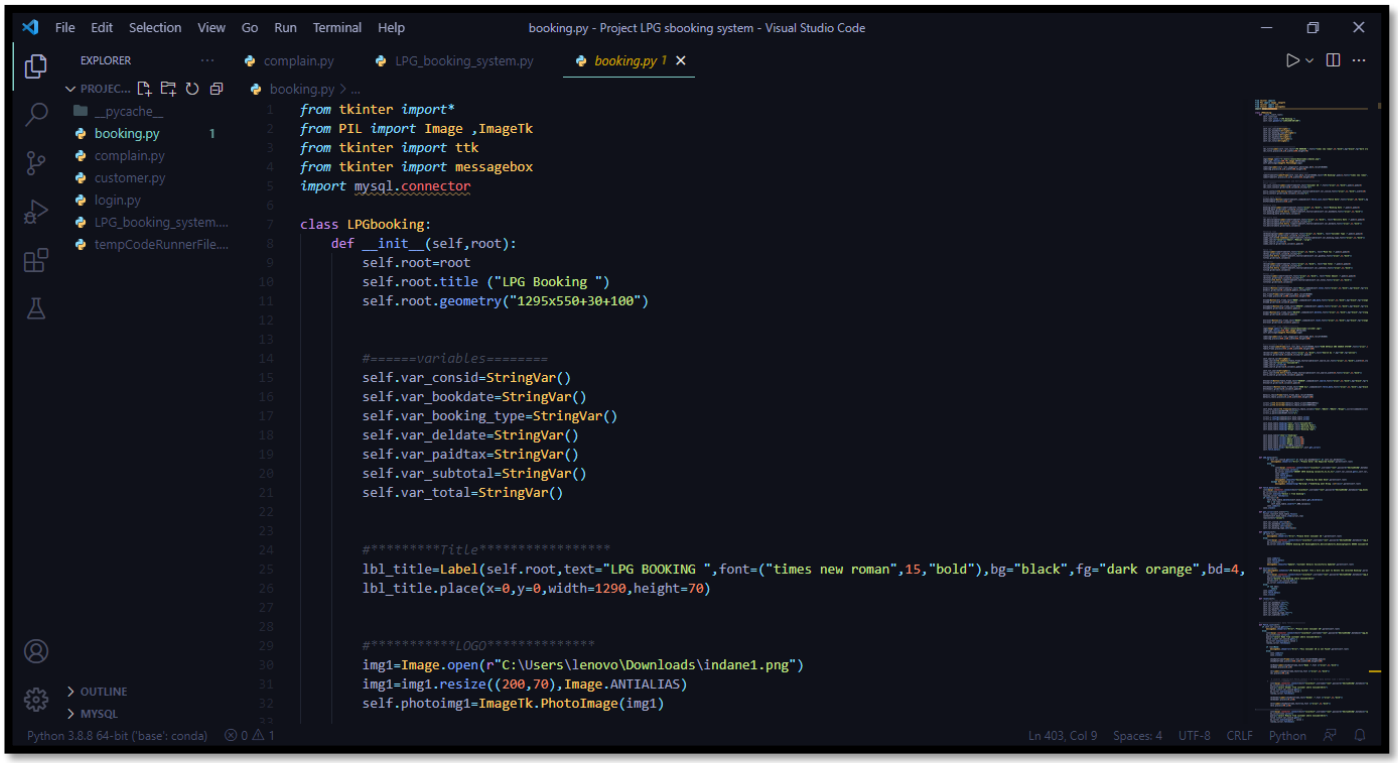


```python
from tkinter import *
from PIL import Image,ImageTk
from tkinter import ttk
import mysql.connector
import random
from tkinter import messagebox

class Cust_win:
    def __init__(self,root):
        self.root=root
        self.root.title("LPG Booking System")
        self.root.geometry("1250x560+110+138")


        #**********Variables*******
        self.var_cons=StringVar()
        x=random.randint(1000,9999)
        self.var_cons.set(str(x))

        self.var_name=StringVar()
        self.var_mname=StringVar()
        self.var_gender=StringVar()
        self.var_mobile=StringVar()
        self.var_altmo=StringVar()
        self.var_email=StringVar()
        self.var_nation=StringVar()
        self.var_address=StringVar()
        self.var_idpr=StringVar()
        self.var_id_num=StringVar()


        #*********Title***************
        lbl_title=Label(self.root,text="ADD CUSTOMER DETAILS",font=("times new roman",15,"bold"),bg="black",fg="dark orang
```



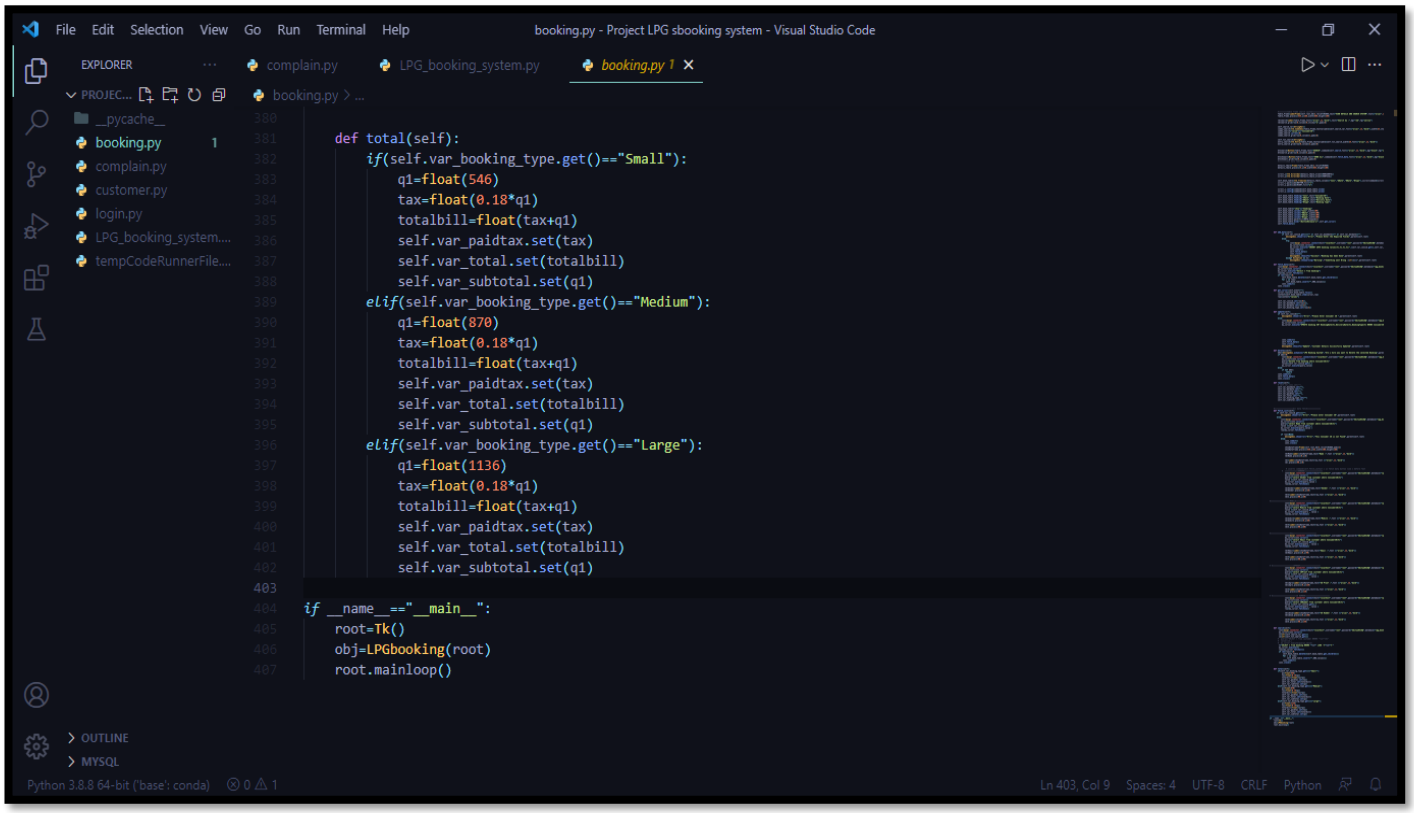
```python
        self.var_address.set(""),
        # self.var_nation.set("")
        x=random.randint(1000,9999)
        self.var_cons.set(str(x))

    def search(self):
        conn=mysql.connector.connect(host="localhost",username="root",password="Aditya8318@",database="lpg_booking")
        my_cursor=conn.cursor()
        s1=str(self.search_var.get())
        s2=str(self.txt_search.get())
        #  query1="SELECT * from customer WHERE "+s1+"=%s"
        #  value=(s2,)
        #  my_cursor.execute(query1,value)
        t="SELECT * from customer WHERE "+s1+" LIKE '%"+s2+"%'"
        my_cursor.execute(t)
        rows=my_cursor.fetchall()
        if len(rows)!=0:
            self.Cust_Details_table.delete(*self.Cust_Details_table.get_children())
            for i in rows:
                self.Cust_Details_table.insert("",END,values=i)
            conn.commit()
        conn.close()


if __name__ == "__main__":
    root=Tk()
    obj=Cust_win(root)
    root.mainloop()
```

3) Book Lpg Page:-



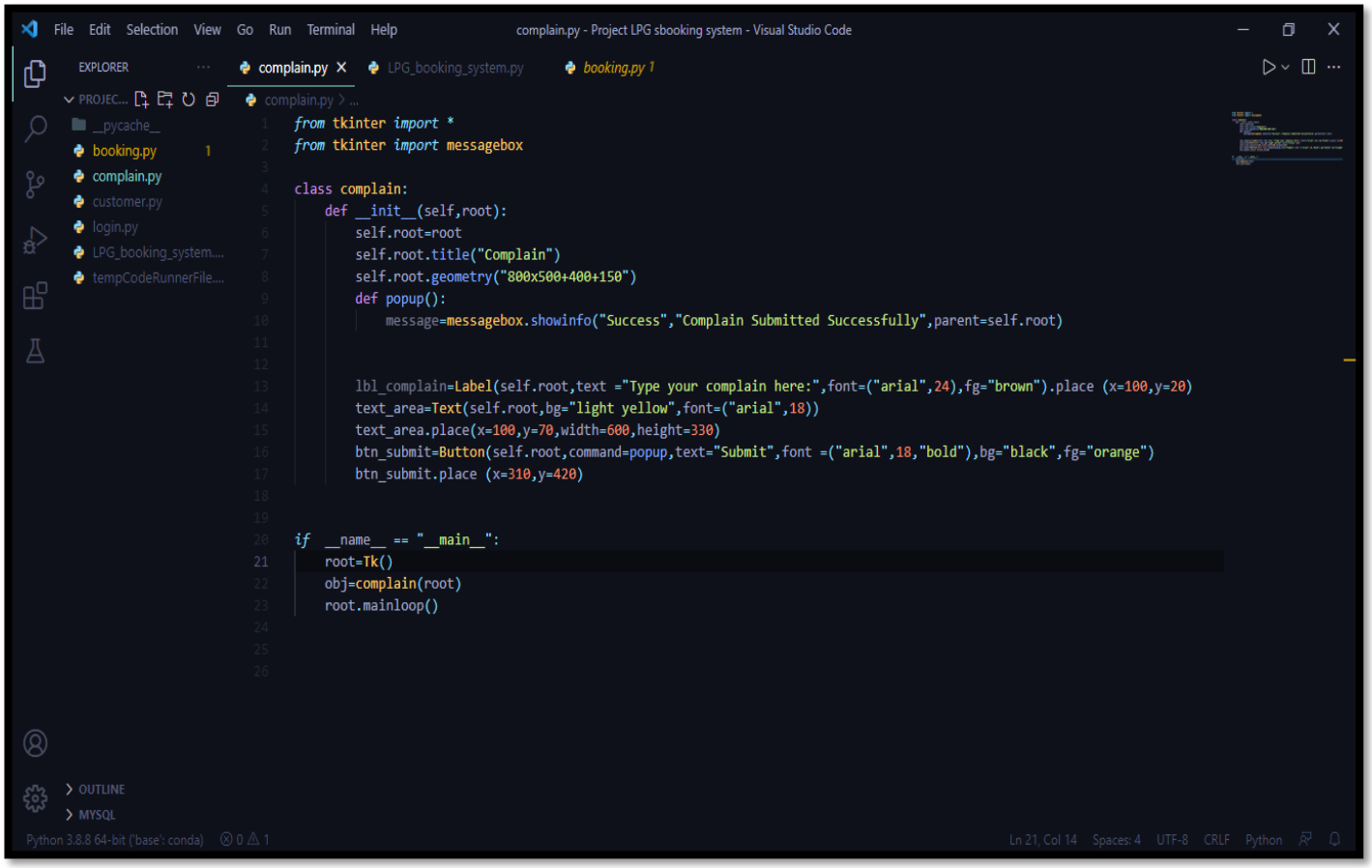
```python
from tkinter import*
from PIL import Image ,ImageTk
from tkinter import ttk
from tkinter import messagebox
import mysql.connector

class LPGbooking:
    def __init__(self,root):
        self.root=root
        self.root.title ("LPG Booking ")
        self.root.geometry("1295x550+30+100")


        #======variables=======
        self.var_consid=StringVar()
        self.var_bookdate=StringVar()
        self.var_booking_type=StringVar()
        self.var_deldate=StringVar()
        self.var_paidtax=StringVar()
        self.var_subtotal=StringVar()
        self.var_total=StringVar()


        #********Title***************
        lbl_title=Label(self.root,text="LPG BOOKING ",font=("times new roman",15,"bold"),bg="black",fg="dark orange",bd=4,
        lbl_title.place(x=0,y=0,width=1290,height=70)


        #**********LOGO*************
        img1=Image.open(r"C:\Users\lenovo\Downloads\indane1.png")
        img1=img1.resize((200,70),Image.ANTIALIAS)
        self.photoimg1=ImageTk.PhotoImage(img1)
```

Billing part:-



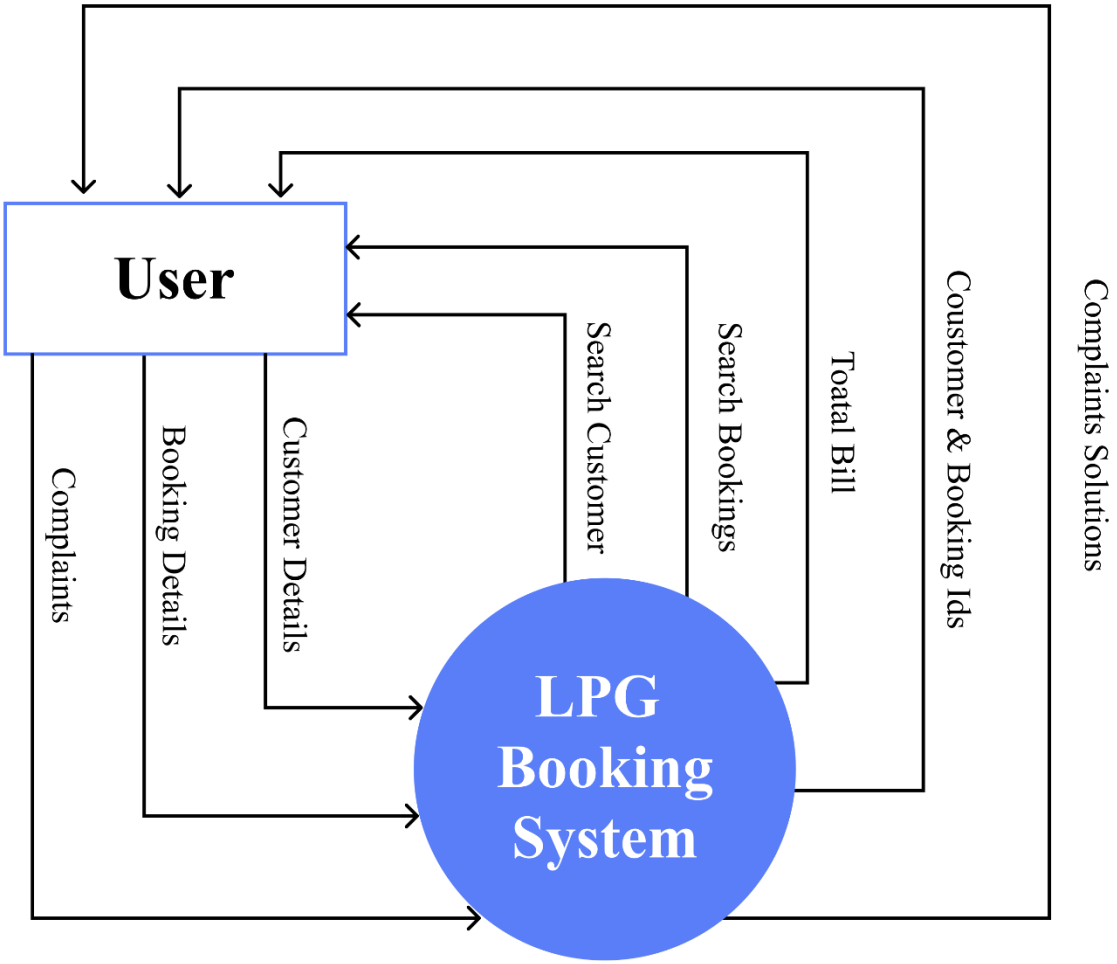
```python
    def total(self):
        if(self.var_booking_type.get()=="Small"):
            q1=float(546)
            tax=float(0.18*q1)
            totalbill=float(tax+q1)
            self.var_paidtax.set(tax)
            self.var_total.set(totalbill)
            self.var_subtotal.set(q1)
        elif(self.var_booking_type.get()=="Medium"):
            q1=float(870)
            tax=float(0.18*q1)
            totalbill=float(tax+q1)
            self.var_paidtax.set(tax)
            self.var_total.set(totalbill)
            self.var_subtotal.set(q1)
        elif(self.var_booking_type.get()=="Large"):
            q1=float(1136)
            tax=float(0.18*q1)
            totalbill=float(tax+q1)
            self.var_paidtax.set(tax)
            self.var_total.set(totalbill)
            self.var_subtotal.set(q1)

if __name__=="__main__":
    root=Tk()
    obj=LPGbooking(root)
    root.mainloop()
```

4) Complain Page:-




```python
from tkinter import *
from tkinter import messagebox

class complain:
    def __init__(self,root):
        self.root=root
        self.root.title("Complain")
        self.root.geometry("800x500+400+150")
        def popup():
            message=messagebox.showinfo("Success","Complain Submitted Successfully",parent=self.root)


        lbl_complain=Label(self.root,text ="Type your complain here:",font=("arial",24),fg="brown").place (x=100,y=20)
        text_area=Text(self.root,bg="light yellow",font=("arial",18))
        text_area.place(x=100,y=70,width=600,height=330)
        btn_submit=Button(self.root,command=popup,text="Submit",font =("arial",18,"bold"),bg="black",fg="orange")
        btn_submit.place (x=310,y=420)


if __name__ == "__main__":
    root=Tk()
    obj=complain(root)
    root.mainloop()
```

DATA FLOW DIAGRAM:-



SUMMARY OF PROJECT:-

Whole Project comprises of 4 different python files that are linked together for the work to be done.
Each file has a class based approach and is linked to the main file i.e Lpg_booking.py by importing those files in the main file.
The file name itself tells about the purpose it serves.
In each file the object of Tk() is made inside the main method and parameter is passed into the respective classes to have an overall class based approach.Three methods are defined inside the class in the main lpg_booking file so as to open a new window as and when the respective buttons are clicked.The Customer.py file has a Cust_win class that contains several methods like search,add,delete,update etc. To perform several operations.Inside the methods the databses are also linked so as to perform diffrent operations.The Customer.py and booking.py files import mysql.connector module so as to work with mysql database smoothly.The booking.py file has a booking class which contains a diffrent method defined for the billing purpose according to the refill type.Since the user is allowed to select the refill type, the total() method seperately calculates the bill for small,medium or large refills respectively as one clicks the bill button.
The complain.py file has a simple structure which displays a window and a text field for the user to type the complain and a submit button to submit the complain.As the user presses the submit button a message is dispalyed to the user about successful complain submission.
Overall the project is a dynamic working model which helps to keep the data of customers secure and is a time saving project.

CONCLUSION:-

The LPG gas booking system is sumarized in this report .This project gives a completely programmed approch towards the gas booking and record mantainance on the database. This project saves the time of agency and also gives a security of data. Data can be searched ,deleted and updated only in one click in the database . I hope this project proves to be a great help to agency

REFRENCES:-

1) Class Course and teacher's words
2) Geeks for geeks:- https://www.geeksforgeeks.org/how-to-connect-python-with-sql-database/
3) Google
4) Stack Overflow:- https://stackoverflow.com/