

# REPORT FOR LPG BOOKING SYSTEM

As a project work for Course

## PYTHON PROGRAMMING (INT 213)

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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](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:-**

<b>Contents</b>	<b>Page No.</b>
<b>1.ABSTRACT and ACKNOWLEDGEMENT</b>	<b>2</b>
<b>2.INTRODUCTION</b> <b>i)Context</b> <b>ii)Motivation</b> <b>iii)Idea</b>	<b>4</b>
<b>3. Roles of Each Member</b>	<b>5</b>
<b>4.LIBRARIES</b> <b>i)Different types</b> <b>ii)Why they are used</b>	<b>6</b>
<b>5. SCREENSHOTS</b>	<b>7 - 14</b>
<b>6. Data Flow Diagram</b>	<b>15</b>
<b>7.Summary of the Project</b>	<b>16</b>
<b>8.Conclusion</b>	<b>17</b>
<b>9.Refrences</b>	<b>17</b>

## **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:-

The screenshot displays the 'ADD CUSTOMER DETAILS' page. The left panel contains form fields for entering customer information: Consumer ID (2898), Customer Name (Aditya Singh), Mother's Name (Indu Singh), Gender (Male), Mobile No. (7823125467), Alt. Mobile No. (8923125902), Email (mbvn34@gmail.com), Nationality (Indian), Id Proof Type (Aadhar Card), Id Number (915623546723), and Address (Jalandhar). Below these fields are buttons for 'ADD', 'UPDATE', 'DELETE', and 'RESET'. The right panel, titled 'VIEW DETAILS AND SEARCH SYSTEM', includes a search bar with 'Search By: Mobile' and buttons for 'SEARCH' and 'SHOW ALL'. Below the search bar is a table listing customer details.

Consumer ID	Name	ID Number	ID proof	Mother's Name	Gender	Mobile	Alt. M
2037	Shashank Rai	923456126734	Aadhar Card	Sheena Rai	Male	7834126789	893412354
2898	Aditya Singh	915623546723	Aadhar Card	Indu Singh	Male	7823125467	892312590
5023	Rakesh Kumar Sir	78975425464546	Pan Card	Abc Singh	Male	8945784512	784512690
5034	Ayush Kr. Singh	912354678923	Aadhar Card	Seema Singh	Male	8723125678	905412345

### 3) Search Customer :-

LPG Booking System


**ADD CUSTOMER DETAILS**

**CUSTOMER DETAILS**

Consumer ID :   
Customer Name :   
Mother's Name :   
Gender :   
Mobile No. :   
Alt. Mobile No. :   
Email :   
Nationality :   
Id Proof Type :   
Id Number :   
Address :   

ADD
UPDATE
DELETE
RESET


**VIEW DETAILS AND SEARCH SYSTEM**

Search By :  

SEARCH
SHOW ALL

Consumer ID	Name	ID Number	ID proof	Mother's Name	Gender	Mobile	Alt. M
2037	Shashank Rai	923456126734	Aadhar Card	Sheena Rai	Male	7834126789	893412354
2898	Aditya Singh	915623546723	Aadhar Card	Indu Singh	Male	7823125467	892312590
3346	Aparna Dwivedi	919295847598	Aadhar Card	Neelu Dwivedi	Female	7845123695	874512360
5023	Rakesh Kumar Sir	78975425464546	Pan Card	Abc Singh	Male	8945784512	784512690
5034	Ayush Kr. Singh	912354678923	Aadhar Card	Seema Singh	Male	8723125678	905412340

LPG Booking System


**ADD CUSTOMER DETAILS**

**CUSTOMER DETAILS**

Consumer ID :   
Customer Name :   
Mother's Name :   
Gender :   
Mobile No. :   
Alt. Mobile No. :   
Email :   
Nationality :   
Id Proof Type :   
Id Number :   
Address :   

ADD
UPDATE
DELETE
RESET

**VIEW DETAILS AND SEARCH SYSTEM**


Search By :  

SEARCH
SHOW ALL

Consumer ID	Name	ID Number	ID proof	Mother's Name	Gender	Mobile	Alt. M
5023	Rakesh Kumar Sir	78975425464546	Pan Card	Abc Singh	Male	8945784512	784512690



#### 4) Booking Page:-



**LPG BOOKING**

**LPG Booking**

Consumer ID :  **Fetch Data**

Booking Date :

Delivery Date :

Cylinder Type :

Paid Tax :

Sub Total :

Total Amount :

**BILL**

Name : {Aditya Singh}


Gender : Male

Mobile : 7823125467

Email : mbvn34@gmail.com

ID Proof : {Aadhar Card}

ID Number 915623546723




**VIEW DETAILS AND SEARCH SYSTEM**

Search by :  **SEARCH** **SHOW ALL**

ConsumerID	Booking Date	Delivery Date	Booking Type
2898	20/11/2021	26/11/2021	Medium
3346	12/11/2021	18/11/2021	Medium
5034	12/11/2021	17/11/2021	Small

**BOOK** **UPDATE** **DELETE** **RESET**

#### Booking Search using Consumer ID:-



**LPG BOOKING**

**LPG Booking**

Consumer ID :  **Fetch Data**

Booking Date :

Delivery Date :

Cylinder Type :

Paid Tax :

Sub Total :

Total Amount :

**BILL**

Name : {Aparna Dwivedi}


Gender : Female

Mobile : 7845123695

Email : eqw32@gmail.com

ID Proof : {Aadhar Card}

ID Number 919295847598



**VIEW DETAILS AND SEARCH SYSTEM**

Search by :   **SEARCH** **SHOW ALL**

ConsumerID	Booking Date	Delivery Date	Booking Type
3346	12/11/2021	18/11/2021	Medium

**BOOK** **UPDATE** **DELETE** **RESET**

# Database Screenshots:-

## 1) Customer Records:-

The screenshot shows the MySQL Workbench interface with the 'customer' table selected in the Navigator. The SQL query is `SELECT * FROM lpg_booking.customer;`. The result grid displays the following data:

ConsumerID	Name	IDNumber	IDProof	MothersName	Gender	Mobile	AltMobile	Email	Address	Nationality
2898	Aditya Singh	915623546723	Aadhar Card	Indu Singh	Male	7823125467	8923125902	mbvn34@gmail.com	Jalandhar	Indian
5023	Rakesh Kumar Si...	78975425464546	Pan Card	Abc Singh	Male	8945784512	7845126920	qwewq@gmail.com	Uganda	Indian
5034	Ayush Kr. Singh	912354678923	Aadhar Card	Seema Singh	Male	8723125678	90541234456	ayush67@gmail.com	Varanasi	Indian
5418	Manjot Singh	919598745815	Aadhar Card	Jhanvi Singh	Male	7845123654	7895412536	asd23@gmail.com	Punjab	Indian
6036	Ishan Srivastava	45871AWEQ78	Driving License	Aarti Srivastava	Male	7845123698	9845123654	vbn23@gmail.com	Varanasi	Indian
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## 2) Booking Records:-

The screenshot shows the MySQL Workbench interface with the 'booking' table selected in the Navigator. The SQL query is `SELECT * FROM lpg_booking.booking;`. The result grid displays the following data:

ConsumerID	BookingDate	DeliveryDate	BookingType
3346	10/11/2021	14/11/2021	Medium
9034	12/11/2021	17/11/2021	Small
6036	23/10/2021	12/11/2021	Large
NULL	NULL	NULL	NULL

## Code Snippets:-

### 1) Main page:-

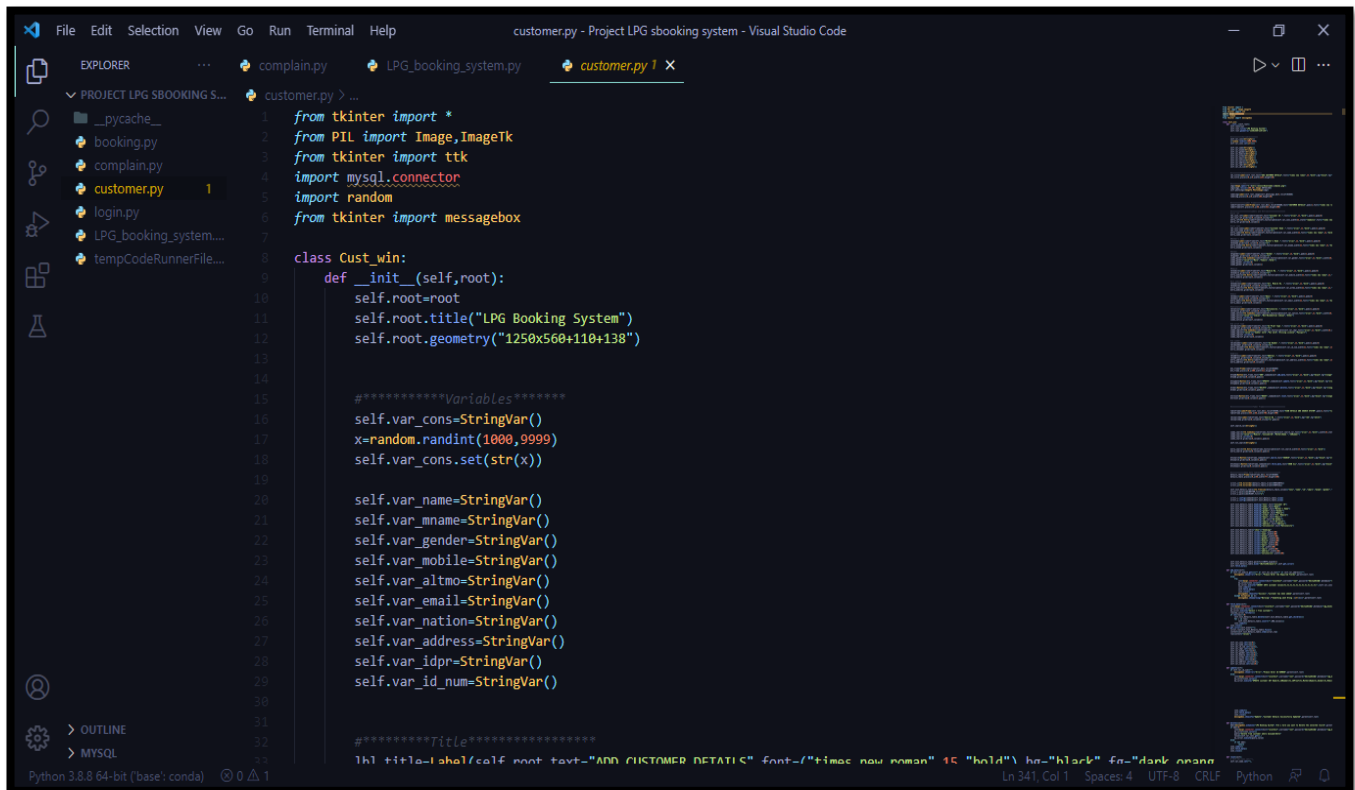
```
File Edit Selection View Go Run Terminal Help LPG_booking_system.py - Project LPG sbooking system - Visual Studio Code

LPG_booking_system.py X customer.py 1
LPG_booking_system.py > LPG_Booking > _init_
1 from tkinter import *
2 from PIL import Image,ImageTk
3 from customer import Cust_win
4 from booking import LPGbooking
5 from complain import complain
6 class LPG_Booking:
7     def __init__(self,root):
8         self.root=root
9         self.root.title("LPG BOOKING SYSTEM")
10        self.root.geometry("1550x800+0+0")
11
12        #*****LOGO*****
13        img1=Image.open(r"C:\Users\lenovo\Downloads\indanel.png")
14        img1=img1.resize((200,140),Image.ANTIALIAS)
15        self.photoimg1=ImageTk.PhotoImage(img1)
16
17        labeling=Label(self.root,image=self.photoimg1,bd=4,relief=RIDGE)
18        labeling.place(x=0,y=0,width=200,height=140)
19
20
21        #*****Right corner Modiji*****
22        img2=Image.open(r"C:\Users\lenovo\Downloads\modiji.jpg")
23        img2=img2.resize((200,140),Image.ANTIALIAS)
24        self.photoimg2=ImageTk.PhotoImage(img2)
25
26        labeling1=Label(self.root,image=self.photoimg2,bd=4,relief=RIDGE)
27        labeling1.place(x=1350,y=0,width=200,height=140)
28
29
30        lbl_title=Label(self.root,text="LPG BOOKING SYSTEM",font=("times new roman",40,"bold"),bg="black",fg="dark orange",bd=4,relief=RIDGE)
31        lbl_title.place(x=202,y=0,width=1148,height=140)
32
33
Python 3.8.8 64-bit (base: conda) 0 1 Ln 63, Col 1 Spaces: 4 UTF-8 CRLF Python
```

```
File Edit Selection View Go Run Terminal Help LPG_booking_system.py - Project LPG sbooking system - Visual Studio Code

LPG_booking_system.py X customer.py 1
LPG_booking_system.py > LPG_Booking > _init_
72        img4=img4.resize((220,130),Image.ANTIALIAS)
73        self.photoimg4=ImageTk.PhotoImage(img4)
74        labeling4=Label(main_frame,image=self.photoimg4,bd=4,relief=RIDGE)
75        labeling4.place(x=0,y=230,width=220,height=130)
76
77        img5=Image.open(r"C:\Users\lenovo\Downloads\cgas.jpg")
78        img5=img5.resize((220,130),Image.ANTIALIAS)
79        self.photoimg5=ImageTk.PhotoImage(img5)
80        labeling5=Label(main_frame,image=self.photoimg5,bd=4,relief=RIDGE)
81        labeling5.place(x=0,y=365,width=220,height=130)
82
83
84    def cust_details(self):
85        self.new_window=TopLevel(self.root)
86        self.app=Cust_win(self.new_window)
87
88    def booking(self):
89        self.new_window1=TopLevel(self.root)
90        self.app1=LPGbooking(self.new_window1)
91
92    def complain(self):
93        self.new_window2=TopLevel(self.root)
94        self.app2=complain(self.new_window2)
95
96
97
98
99
100 if __name__ == "__main__":
101     root=Tk()
102     obj=LPG_Booking(root)
103     root.mainloop()
104
Python 3.8.8 64-bit (base: conda) 0 1 Ln 63, Col 1 Spaces: 4 UTF-8 CRLF Python
```

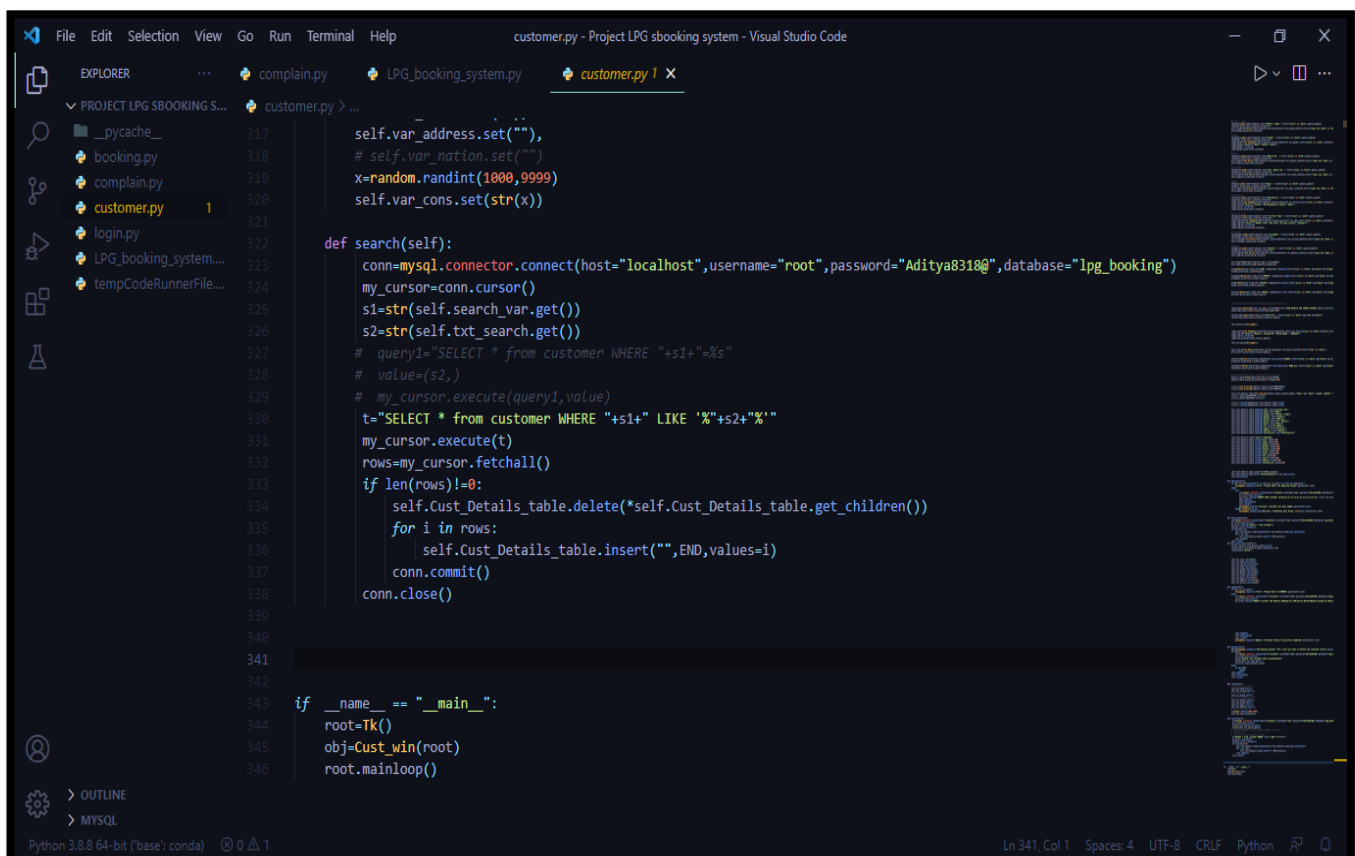
## 2) Add Customer Page:-



```
customer.py - Project LPG sbooking system - Visual Studio Code

EXPLORER
PROJECT LPG SBOOKING S...
  _pycache_
  booking.py
  complain.py
  customer.py 1
  login.py
  LPG_booking_system...
  tempCodeRunnerFile...

1 from tkinter import *
2 from PIL import Image,ImageTk
3 from tkinter import ttk
4 import mysql.connector
5 import random
6 from tkinter import messagebox
7
8 class Cust_win:
9     def __init__(self,root):
10         self.root=root
11         self.root.title("LPG Booking System")
12         self.root.geometry("1250x560+110+138")
13
14
15         #*****Variables*****
16         self.var_cons=StringVar()
17         x=random.randint(1000,9999)
18         self.var_cons.set(str(x))
19
20         self.var_name=StringVar()
21         self.var_mname=StringVar()
22         self.var_gender=StringVar()
23         self.var_mobile=StringVar()
24         self.var_altno=StringVar()
25         self.var_email=StringVar()
26         self.var_nation=StringVar()
27         self.var_address=StringVar()
28         self.var_idpr=StringVar()
29         self.var_id_num=StringVar()
30
31
32         #*****Title*****
33         lbl_title=Label(self.root,text="ADD CUSTOMER DETAILS" font=("times new roman",15,"bold"),bg="black",fg="dark orange",
34                             width=30,height=1)
35         lbl_title.pack()
```

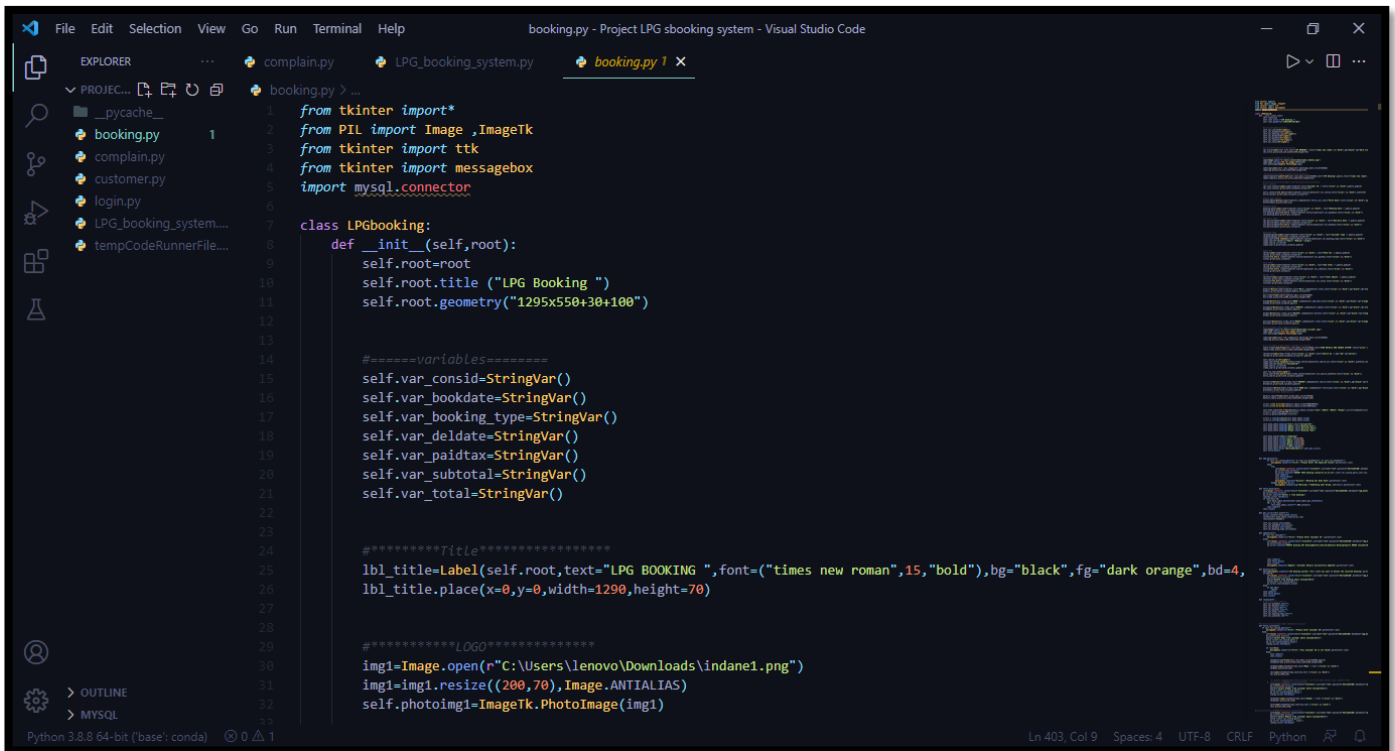


```
customer.py - Project LPG sbooking system - Visual Studio Code

EXPLORER
PROJECT LPG SBOOKING S...
  _pycache_
  booking.py
  complain.py
  customer.py 1
  login.py
  LPG_booking_system...
  tempCodeRunnerFile...

317 self.var_address.set(""),
318 # self.var_nation.set("")
319 x=random.randint(1000,9999)
320 self.var_cons.set(str(x))
321
322 def search(self):
323     conn=mysql.connector.connect(host="localhost",username="root",password="Aditya8318@",database="lpg_booking")
324     my_cursor=conn.cursor()
325     s1=str(self.search_var.get())
326     s2=str(self.txt_search.get())
327     # query1="SELECT * from customer WHERE "+s1+"=%s"
328     # value=(s2,)
329     # my_cursor.execute(query1,value)
330     t="SELECT * from customer WHERE "+s1+" LIKE '%"+s2+"%"
331     my_cursor.execute(t)
332     rows=my_cursor.fetchall()
333     if len(rows)!=0:
334         self.Cust_Details_table.delete(*self.Cust_Details_table.get_children())
335         for i in rows:
336             self.Cust_Details_table.insert("",END,values=i)
337         conn.commit()
338     conn.close()
339
340
341
342
343 if __name__ == "__main__":
344     root=Tk()
345     obj=Cust_win(root)
346     root.mainloop()
```

### 3) Book Lpg Page:-

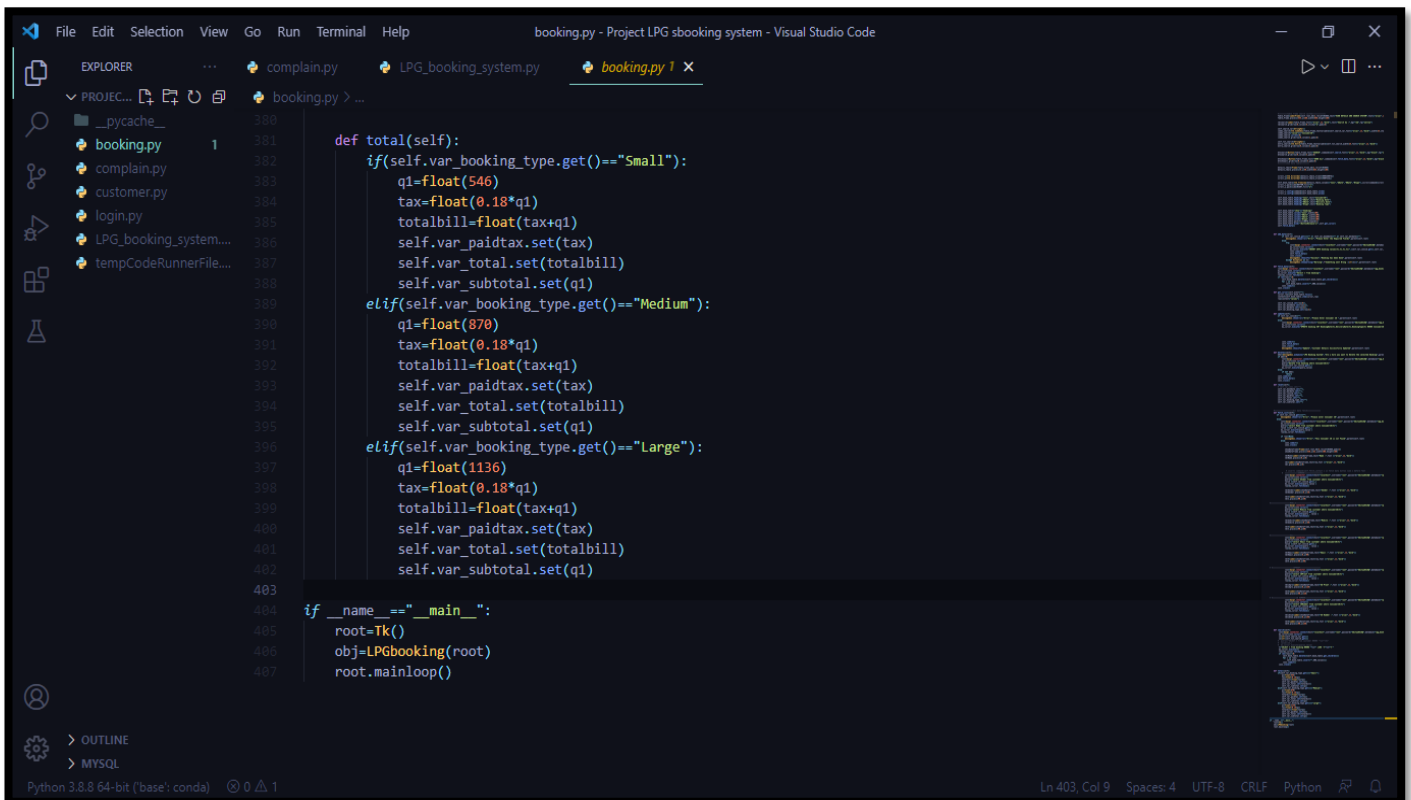


```
File Edit Selection View Go Run Terminal Help
booking.py - Project LPG sbooking system - Visual Studio Code

EXPLORER
PROJECT...
  __pycache__
  booking.py
  complain.py
  customer.py
  login.py
  LPG_booking_system...
  tempCodeRunnerFile...

booking.py > ...
1 from tkinter import*
2 from PIL import Image ,ImageTk
3 from tkinter import ttk
4 from tkinter import messagebox
5 import mysql.connector
6
7 class LPGbooking:
8     def __init__(self,root):
9         self.root=root
10        self.root.title ("LPG Booking ")
11        self.root.geometry("1295x550+30+100")
12
13
14        #=====variables=====
15        self.var_consider=StringVar()
16        self.var_bookdate=StringVar()
17        self.var_booking_type=StringVar()
18        self.var_deldate=StringVar()
19        self.var_paidtax=StringVar()
20        self.var_subtotal=StringVar()
21        self.var_total=StringVar()
22
23
24        #*****Title*****
25        lbl_title=Label(self.root,text="LPG BOOKING ",font=("times new roman",15,"bold"),bg="black",fg="dark orange",bd=4,
26        lbl_title.place(x=0,y=0,width=1290,height=70)
27
28
29        #*****LOGO*****
30        img1=Image.open(r"C:\Users\lenovo\Downloads\indane1.png")
31        img1=img1.resize((200,70),Image.ANTIALIAS)
32        self.photoimg1=ImageTk.PhotoImage(img1)
33
Python 3.8.8 64-bit ('base': conda) 0 1
```

### Billing part:-

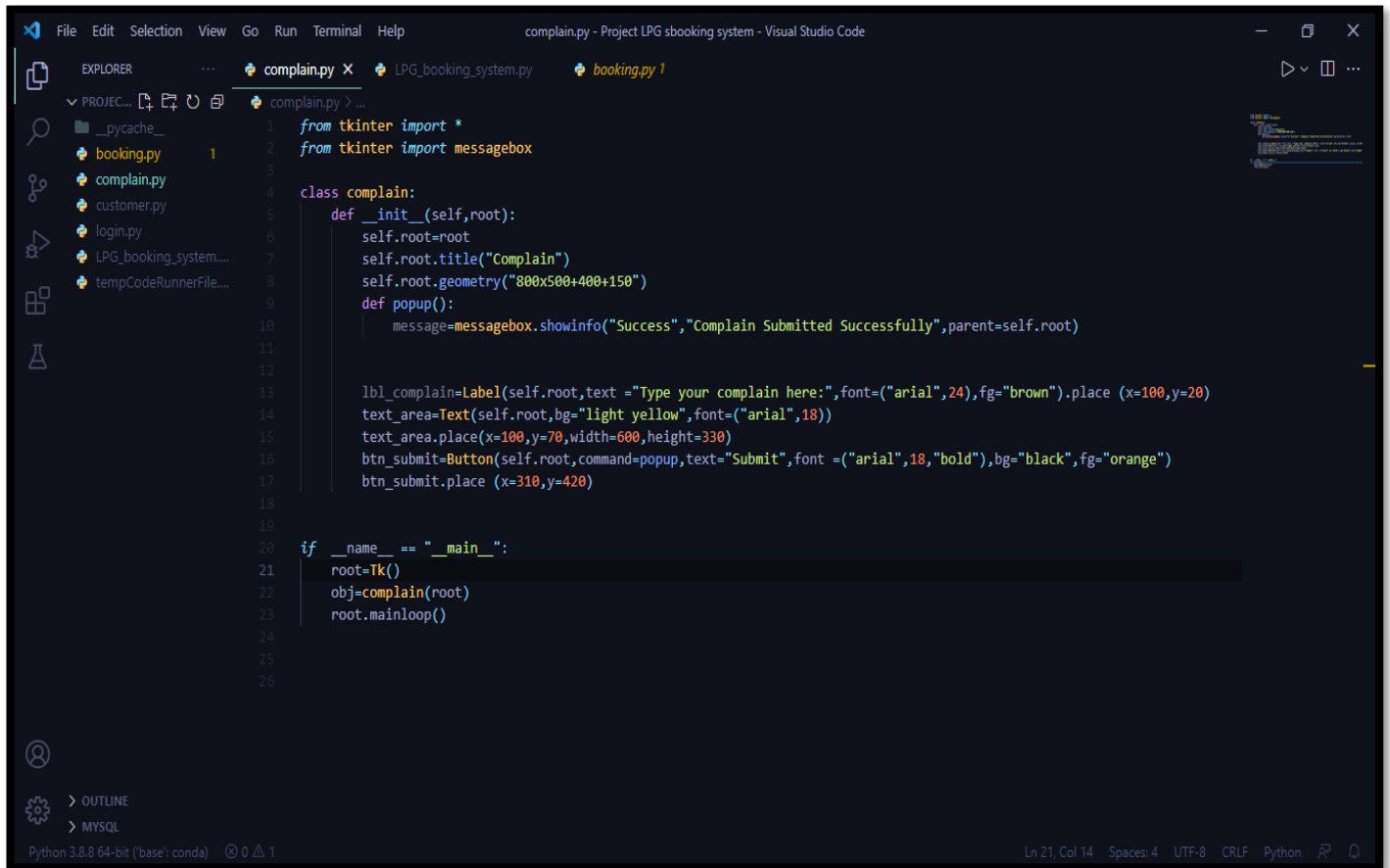


```
File Edit Selection View Go Run Terminal Help
booking.py - Project LPG sbooking system - Visual Studio Code

EXPLORER
PROJECT...
  __pycache__
  booking.py
  complain.py
  customer.py
  login.py
  LPG_booking_system...
  tempCodeRunnerFile...

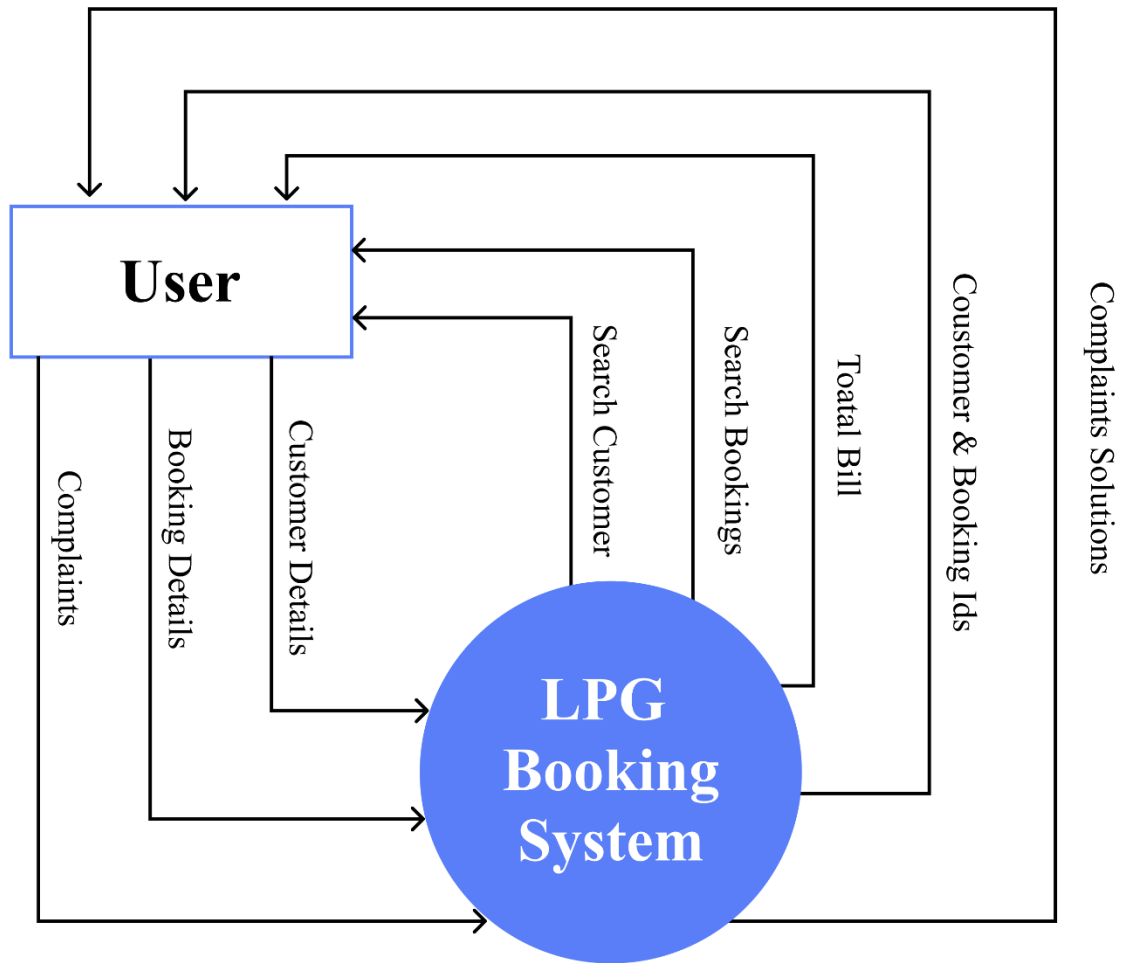
booking.py > ...
380
381 def total(self):
382     if(self.var_booking_type.get()=="Small"):
383         q1=float(546)
384         tax=float(0.18*q1)
385         totalbill=float(tax+q1)
386         self.var_paidtax.set(tax)
387         self.var_total.set(totalbill)
388         self.var_subtotal.set(q1)
389     elif(self.var_booking_type.get()=="Medium"):
390         q1=float(870)
391         tax=float(0.18*q1)
392         totalbill=float(tax+q1)
393         self.var_paidtax.set(tax)
394         self.var_total.set(totalbill)
395         self.var_subtotal.set(q1)
396     elif(self.var_booking_type.get()=="Large"):
397         q1=float(1136)
398         tax=float(0.18*q1)
399         totalbill=float(tax+q1)
400         self.var_paidtax.set(tax)
401         self.var_total.set(totalbill)
402         self.var_subtotal.set(q1)
403
404 if __name__=="__main__":
405     root=Tk()
406     obj=LPGbooking(root)
407     root.mainloop()
408
Python 3.8.8 64-bit ('base': conda) 0 1
```

#### 4) Complain Page:-



```
1 from tkinter import *
2 from tkinter import messagebox
3
4 class complain:
5     def __init__(self,root):
6         self.root=root
7         self.root.title("Complain")
8         self.root.geometry("800x500+400+150")
9         def popup():
10             message=messagebox.showinfo("Success","Complain Submitted Successfully",parent=self.root)
11
12
13         lbl_complain=Label(self.root,text ="Type your complain here:",font=("arial",24),fg="brown").place (x=100,y=20)
14         text_area=Text(self.root,bg="light yellow",font=("arial",18))
15         text_area.place(x=100,y=70,width=600,height=330)
16         btn_submit=Button(self.root,command=popup,text="Submit",font =("arial",18,"bold"),bg="black",fg="orange")
17         btn_submit.place (x=310,y=420)
18
19
20 if __name__ == "__main__":
21     root=Tk()
22     obj=complain(root)
23     root.mainloop()
24
25
26
```

## 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 summarized in this report. This project gives a completely programmed approach towards the gas booking and record maintenance 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.

## **REFERENCES:-**

- 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/>