

Crime investigation & case solving

PROJECT REPORT

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By:

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Objective

The primary objective of this project is to implement what we've learnt throughout our course of Python programming and use that to develop a Graphical User Interface (GUI) for crimes happening in the present era. This project also aims at providing a user friendly interface to the users to let them easily report the crime that happened around them.

Now days there are many crimes happening in each and every corner of the world. To mitigate those to some extent ,people can report the crime. We can see that many crimes are happening around us but we don't know what to do. By this GUI we can able to enter the details of that crime likewise type of the crime,place of the crime and so on. By creating the GUI like this we are able to store the details of that specific crime happened at that sort of time.

Introduction

The innovations in the field of science and technology has made our lives easy and hence there is lack of physical activity which has made today's generation prone to different kind of crimes that are happening around us Therefore, it becomes important to take care of ourselves in the future and make sure that the crimes don't happen. Online crime investigation is which people can enter the details of the crime that happened around them.The GUI helps us to enter the specific details about the crime and to correspond further. This project is no exception, it has been coded in python and comes with a graphical user interface to facilitate the users. This project is used to entry the details of a people who are indulged in the crime activities ,and the place of the activity This project also includes SQL database connectivity that helps the use to store the data and then fetch it later, when required.

GUI Screenshots:



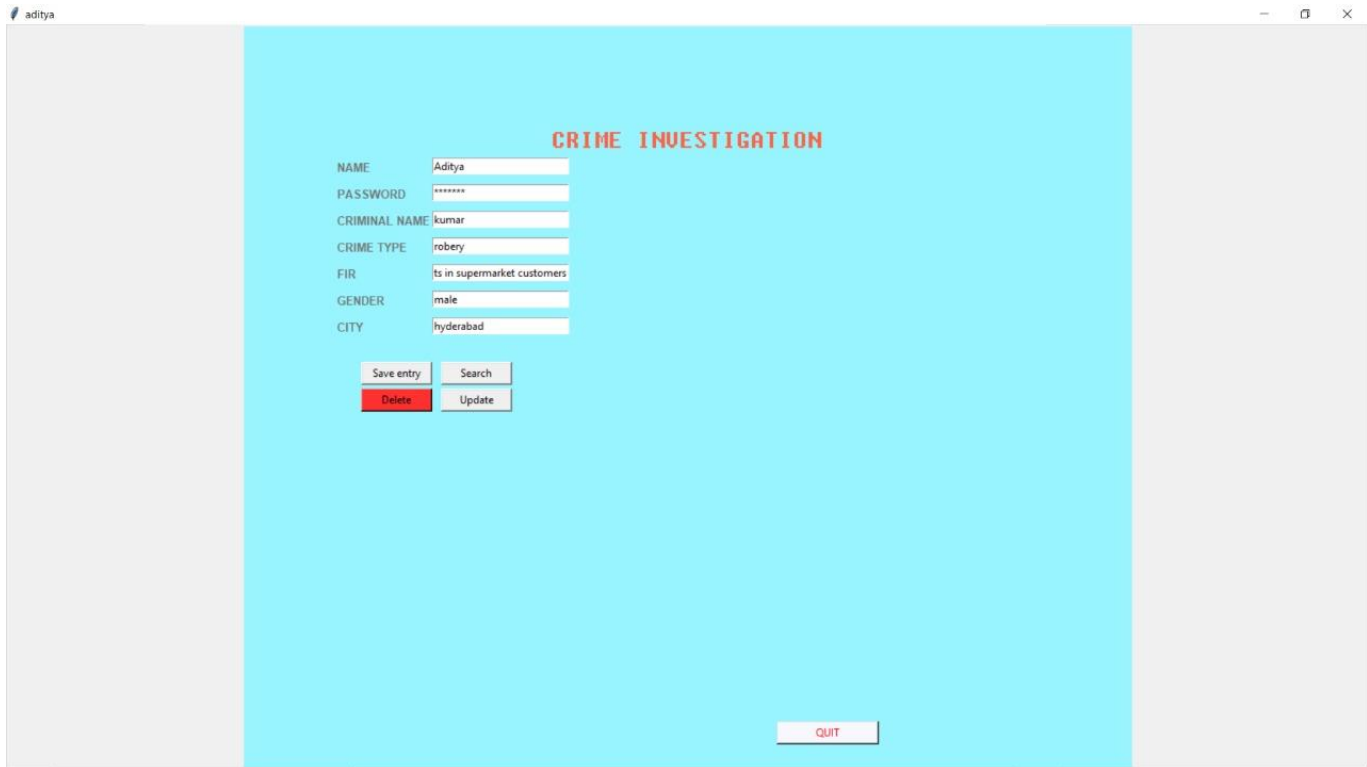
The screenshot shows a web application window titled 'aditya' with standard window controls. The main content area has a light blue background and is titled 'CRIME INVESTIGATION' in red. It contains a form with the following fields and buttons:

CRIME INVESTIGATION	
NAME	<input type="text" value="Surya"/>
PASSWORD	<input type="password" value="*****"/>
CRIMINAL NAME	<input type="text"/>
CRIME TYPE	<input type="text"/>
FIR	<input type="text"/>
GENDER	<input type="text"/>
CITY	<input type="text"/>
<div><div>Save entry</div><div>Search</div><div>Delete</div><div>Update</div></div>	

At the bottom center of the form area, there is a 'QUIT' button.

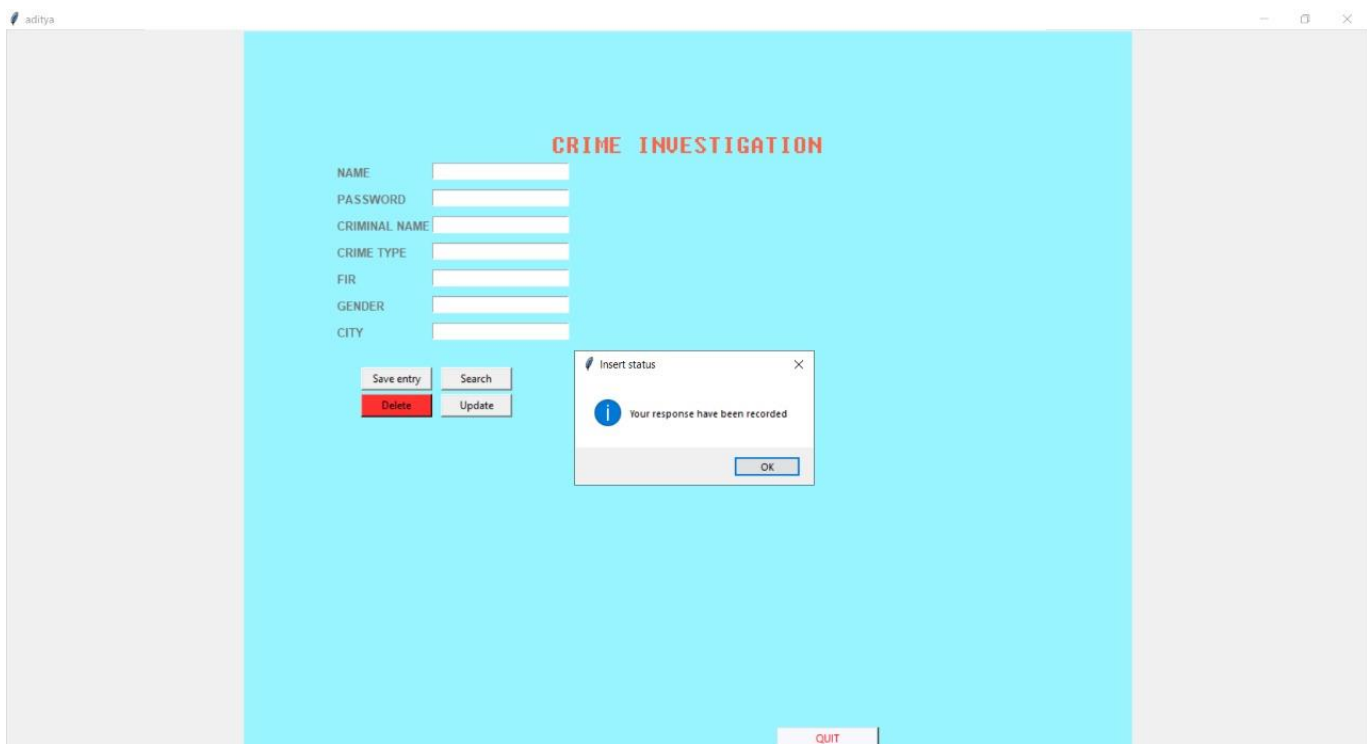
To add entry:

First enter the details and click on add entry



The screenshot shows a web application window titled 'aditya'. The main content area has a light blue background and is titled 'CRIME INVESTIGATION' in red text. On the left, there is a form with the following fields and values: NAME (Aditya), PASSWORD (*****), CRIMINAL NAME (kumar), CRIME TYPE (robbery), FIR (ts in supermarket customers), GENDER (male), and CITY (hyderabad). Below the form are four buttons: 'Save entry' (light blue), 'Search' (light blue), 'Delete' (red), and 'Update' (light blue). At the bottom center of the window is a 'QUIT' button.

When all the details are filled the RESPONSE POPUP:



This screenshot shows the same 'CRIME INVESTIGATION' form as the previous one, but with all input fields empty. A modal popup titled 'Insert status' is displayed in the center-right of the form area. The popup contains an information icon (i) and the text 'Your response have been recorded'. At the bottom of the popup is an 'OK' button. The 'QUIT' button is still visible at the bottom of the main window.

When existing details are modified :

The screenshot shows a window titled 'aditya' with a light blue background. The title 'CRIME INVESTIGATION' is displayed in red at the top center. On the left, there are input fields for NAME, PASSWORD, CRIMINAL NAME, CRIME TYPE, FIR, GENDER, and CITY. Below these fields are four buttons: 'Save entry', 'Search', 'Delete' (highlighted in red), and 'Update'. A modal dialog box titled 'Update status' is open in the center, showing a blue information icon and the text 'Updated successfully', with an 'OK' button at the bottom. A 'QUIT' button is located at the bottom center of the window.

Deletion of details:

The screenshot shows the same 'CRIME INVESTIGATION' application window. The modal dialog box now is titled 'Delete status' and displays a blue information icon with the text 'Deleted successfully', along with an 'OK' button. The 'Delete' button on the main form is still highlighted in red. The 'QUIT' button remains at the bottom center.

Storage of data in MYSQL Workbench:

The screenshot displays the MySQL Workbench interface for a local instance of MySQL80. The left sidebar shows a 'SCHEMAS' list with various databases like 'adi', 'adit', 'aditya', 'project', 'project1', 'sakila', 'sys', and 'world'. The main workspace shows a query editor with the SQL statement: `SELECT * FROM aditya.gr3;`. Below the query editor, the 'Result Grid' displays the following data:

name	password	crime_type	criminal_name	fr	gender	city
Aditya	ad3637	robbery	kumar	steal wallets in supermarket custo...	male	hyderabad
Naveen	chanto9939	forgery	Sandeep	student certificates forgery	male	palakolu
Pardu	par121	murder	Azjam	killed a man in a bus	male	delhi
Joshiha	josh5621	harassment	Jaswitha	teasing in college	female	delhi

The bottom panel shows the 'Output' tab with the following message:

```
1 15:58:14 SELECT * FROM aditya.gr3 LIMIT 0, 1000
1 row(s) returned
0.000 sec / 0.000 sec
```

Source code

```
from tkinter import *
from tkinter import messagebox
import mysql.connector

root = Tk()

root.title('aditya')

root.geometry('1000x1000')

mydb = mysql.connector.connect(host="localhost", user="root", password="3786adi", database="Aditya")
cursor = mydb.cursor()

#cursor.execute("create database Aditya")

#cursor.execute("create table gr3 (name varchar(100), password varchar(100), crime_type varchar(100),
criminal_name varchar(100), fir varchar(1000), gender varchar(100), city varchar(100))")

cursor.execute("show databases")

for x in cursor:
    print(x)
cursor.close()

def Insert():

    name = e1.get()
    password = e2.get();
    crime_type = e3.get();
    criminal_name = e4.get();
    fir = e5.get();
    gender = e6.get();
    city = e7.get();

    if (name == "" or password == "" or crimetype == "" or vicname == "" or fir == "" or gender == "" or city == ""):
        messagebox.showerror("incomplete data", "Enter all the sections")
    else:
        mydb = mysql.connector.connect(host="localhost", user="root", password="3786adi", database="Aditya")
        cursor = mydb.cursor()

        cursor.execute("insert into gr3 values('"+ name +"','"+ password +"', '"+ crime_type +"', '"+ criminal_name +'",
        '"+ fir +"', '"+ gender +"', '"+ city +"')")
        cursor.execute("commit");

        e1.delete(0, 'end')
        e2.delete(0, 'end');
        e3.delete(0, 'end');
```

```
e4.delete(0, 'end');
e5.delete(0, 'end');
e6.delete(0, 'end');
e7.delete(0, 'end');
```

```
messagebox.showinfo("Insert status", "Your response have been recorded");
mydb.close();
```

def Delete():

```
if(e1.get() == ""):
    messagebox.showerror("name is empty", "enter name to execute")
elif(e2.get() == ""):
    messagebox.showerror("password is empty", "Enter password to execute")
```

else:

```
mydb = mysql.connector.connect(host="localhost", user="root", password="3786adi", database="Aditya")
cursor = mydb.cursor()
cursor.execute(" delete from gr3 where name = '"+ e1.get() +"' AND password = '"+ e2.get() +"'")
```

```
cursor.execute("commit");
```

```
e1.delete(0, 'end')
e2.delete(0, 'end');
```

```
messagebox.showinfo("Delete status", "Deleted sucessfully");
```

```
mydb.close();
```

def Update():

```
name = e1.get()
password = e2.get();
crime_type = e3.get();
criminal_name = e4.get();
fir = e5.get();
gender = e6.get();
city = e7.get();
```

```
if (name == "" or password == "" or crimetype == "" or vicname == "" or fir == "" or gender == "" or city == ""):
    messagebox.showerror("updating data", "Enter all the sections")
```

else:

```
mydb = mysql.connector.connect(host="localhost", user="root", password="3786adi", database="Aditya")
cursor = mydb.cursor()
```

```
cursor.execute("update gr3 set crime_type='"+ crime_type +"', criminal_name='"+ criminal_name +"', fir='"+ fir
+ "', gender='"+ gender + "', city='"+ city + "' where name='"+ name + "' AND password='"+ password + "'")
cursor.execute("commit");
```

```
e1.delete(0, 'end')
e2.delete(0, 'end');
e3.delete(0, 'end');
```

```
e4.delete(0, 'end');
```



```
e5.delete(0, 'end');
e6.delete(0, 'end');
e7.delete(0, 'end');

messagebox.showinfo("Upadate status", "Updated sucessfully");
mydb.close();
```

```
def search():
```

```
if(e1.get() == ""):
    messagebox.showerror("name is empty", "enter name to execute")
elif(e2.get() == ""):
    messagebox.showerror("password is empty", "Enter password to execute")
```

```
else:
```

```
mydb = mysql.connector.connect(host="localhost", user="root", password="3786adi", database="Aditya")
cursor = mydb.cursor()
cursor.execute("select * from gr3 where name = '"+ e1.get() +"'")
rows = cursor.fetchall()
```

```
for row in rows:
```

```
    e3.insert(0, row[2])
    e4.insert(0, row[3])
    e5.insert(0, row[4])
    e6.insert(0, row[5])
    e7.insert(0, row[6])
mydb.close();
```

```
c = Canvas(root, bg="cadetblue1", width=1000, height=1000)
id = c.create_text(500,130,text="CRIME INVESTIGATION", font="fixedsys 20", fill="tomato", activefill="brown1")
c.pack()
```

```
name = Label(root, text="NAME", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold", cursor="tcross")
name.place(x=370,y=150)
e1 = Entry(root, textvariable=name, width=25)
e1.place(x=480,y=150)
```

```
password = Label(root, text="PASSWORD", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold",
cursor="tcross")
password.place(x=370,y=180)
e2 = Entry(root, textvariable=password, width=25, show='*')
e2.place(x=480,y=180)
```

```
crimetype = Label(root, text="CRIME TYPE", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold",
cursor="tcross")
crimetype.place(x=370,y=240)
e3 = Entry(root, textvariable=crimetype, width=25)
e3.place(x=480,y=240)
```

```
vicname = Label(root, text="CRIMINAL NAME", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold",
cursor="tcross")
```

```
vicname.place(x=370,y=270)
```

```
e4 = Entry(root, textvariable=vicname, width=25)
e4.place(x=480,y=210)
```

```
fir = Label(root, text="FIR", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold", cursor="tcross")
fir.place(x=370,y=270)
e5 = Entry(root, textvariable=fir, width=25)
e5.place(x=480,y=270)
```

```
gender = Label(root, text="GENDER", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold", cursor="tcross")
gender.place(x=370,y=300)
e6 = Entry(root, textvariable=gender, width=25)
e6.place(x=480,y=300)
```

```
city = Label(root, text="CITY", bg="cadetblue1", fg="gray45", font="Helvetica 10 bold", cursor="tcross")
city.place(x=370,y=330)
e7 = Entry(root, textvariable=city, width=25)
e7.place(x=480,y=330)
```

```
Button(root, text="Save entry", command = Insert, width=10).place(x=400,y=380)
Button(root, text="Delete", command = Delete, bg='firebrick1', width = 10).place(x=400,y=410)
Button(root, text="Update", command = Update, width=10).place(x=490,y=410)
Button(root, text="Search", command = search, width=10).place(x=490,y=380)
Button(root, text="QUIT", command=root.destroy, width=15, bg="ghost white", fg="red").place(x=868, y=785)
```

```
root.mainloop()
```

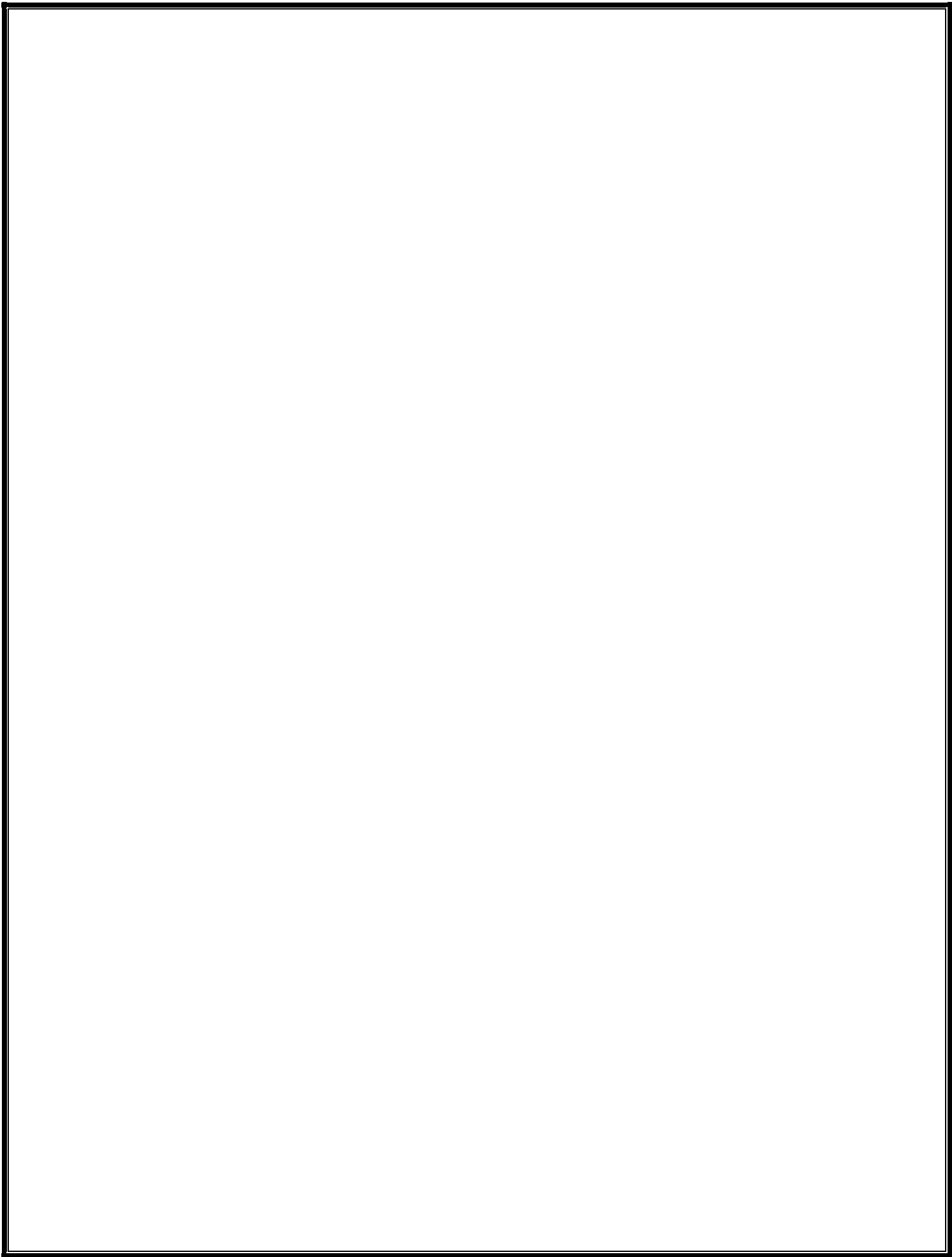
Results

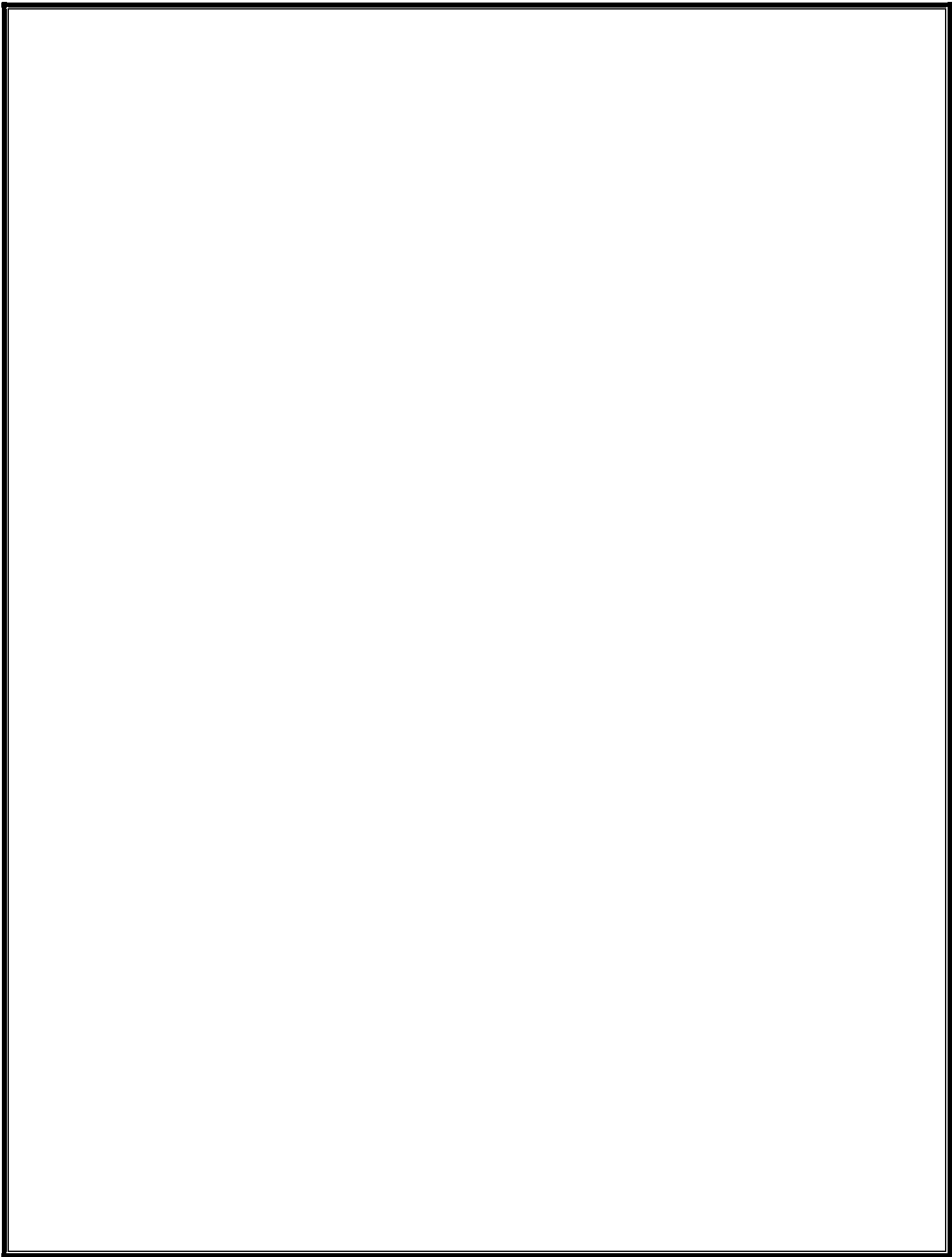
We finally got the end product as a '**online crime investigation and case solving**' that includes all the mentioned modules. We learnt how to make a GUI using Tkinter in Python and also learnt to implement database connectivity using SQL.

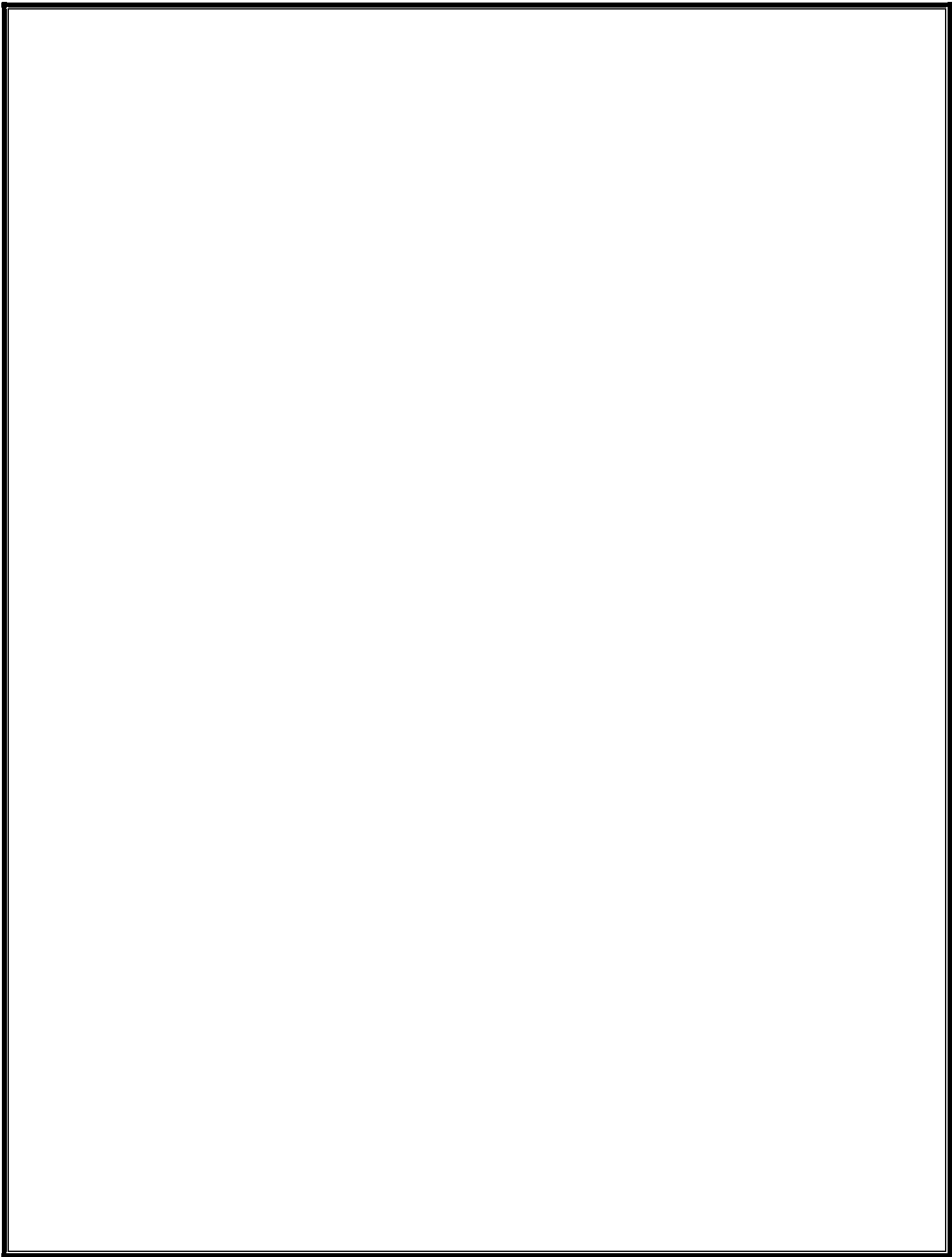
This GUI helps us to enter the details of the specific crime victim details . By this software we are able to store the data in the database.

We can somewhat know the types of crimes happening ,and the places which most of the crimes took place. The following are the end results that we yielded from our project.

- We can enter the details of the crime
- We can able to view the details of the crime ,as they are stored in the database via SQL and we can delete as well as modify also.







connect()

Results

We finally got the end product as a '*online crime investigation and case solving*' that includes all the mentioned modules. We learnt how to make a GUI using Tkinter in Python and also learnt to implement database connectivity using SQL.

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We can somewhat know the types of crimes happening ,and the places which most of the crimes took place. The following are the end results that we yielded from our project.

- We can enter the details of the crime
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References

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