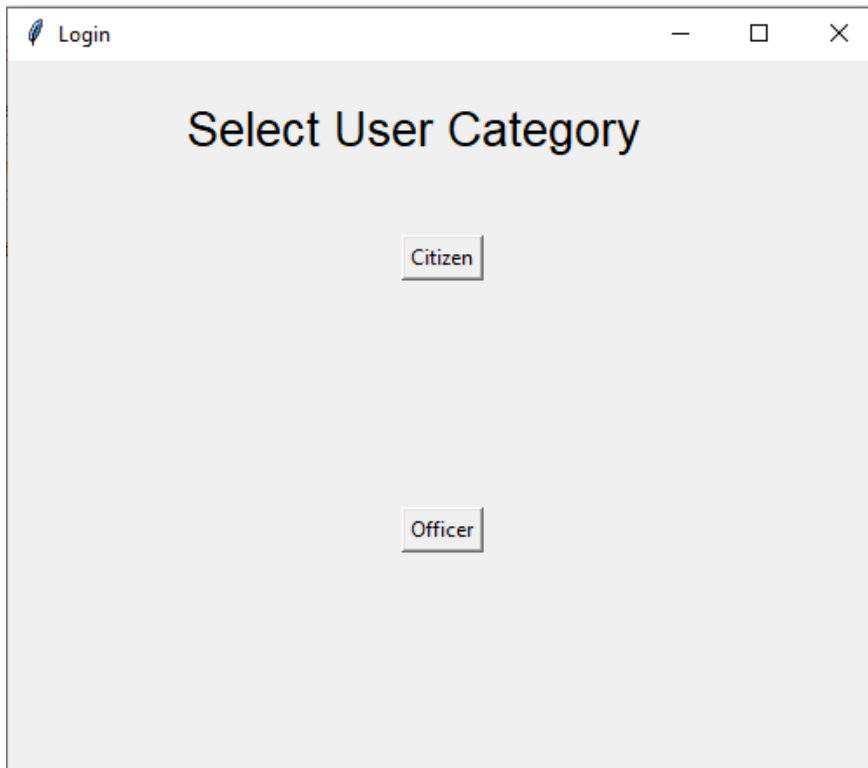


“The Road to development, removing one pothole at a time”

Project screenshots

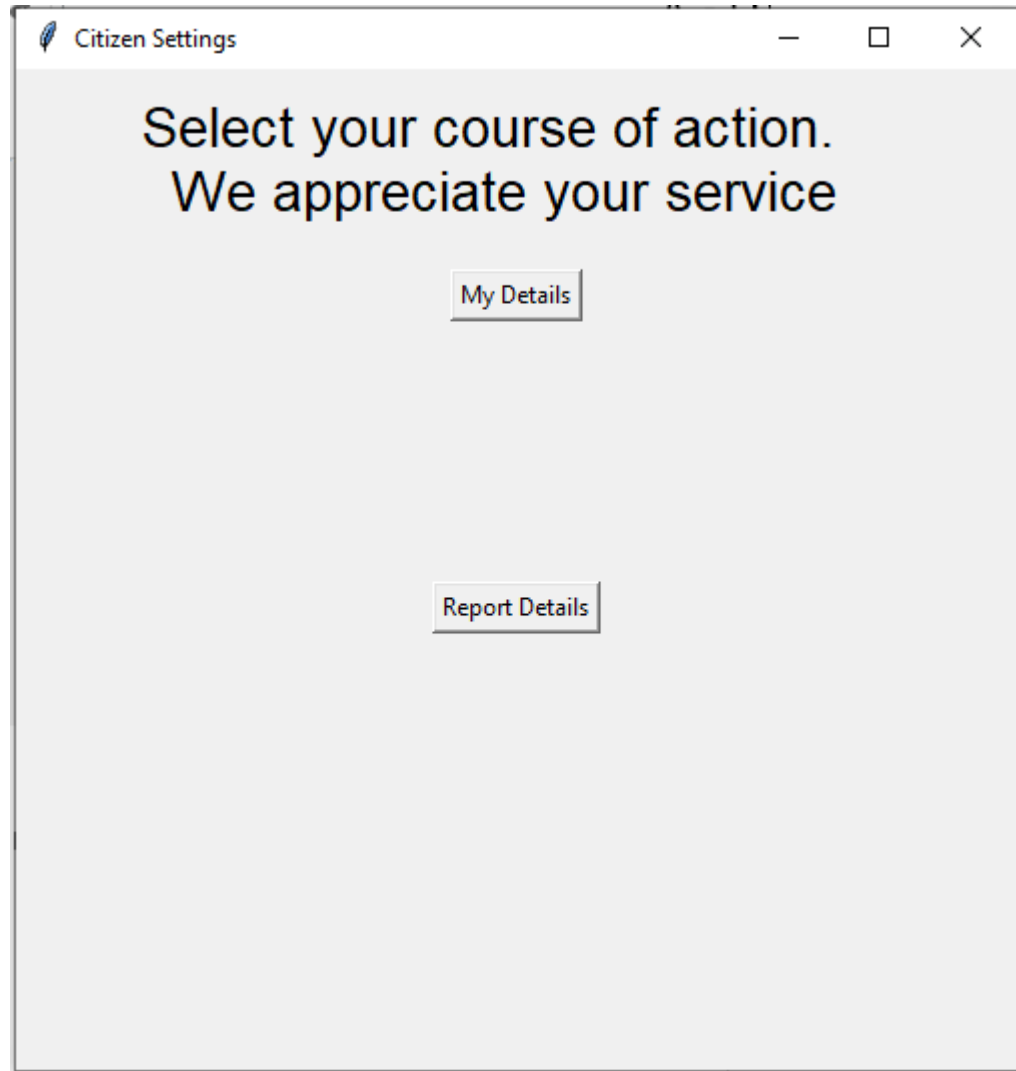
The following window appears on running the program



The user is allowed to select their role.

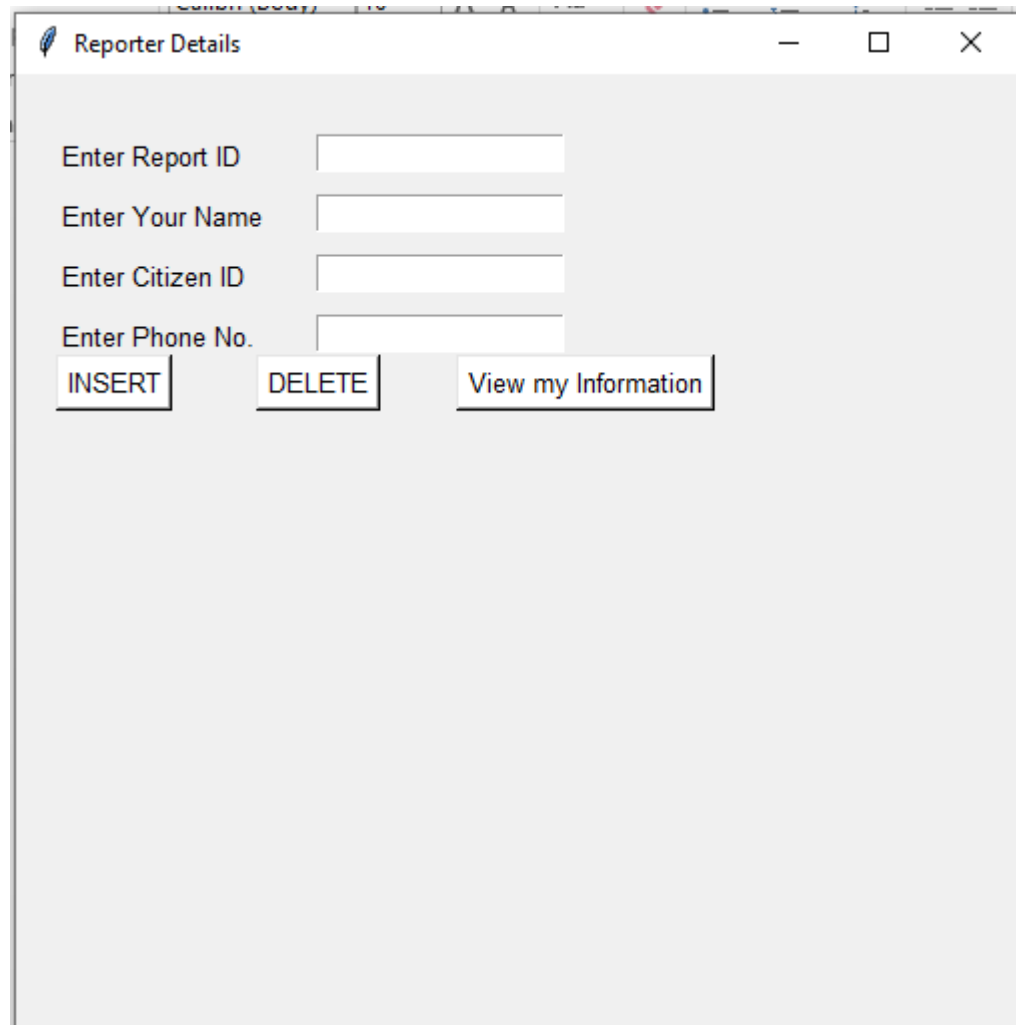
I. Citizen:

On selecting Citizen, the citizen setting pops up.



The citizen is allowed to select their personal details or the details of their report.

On selecting "My details", the following window appears:



A screenshot of a web application window titled "Reporter Details". The window has a standard title bar with a feather icon, a minus sign, a square icon, and a close button. The main content area is light gray and contains four input fields stacked vertically, each with a label to its left: "Enter Report ID", "Enter Your Name", "Enter Citizen ID", and "Enter Phone No.". Below the input fields are three buttons: "INSERT", "DELETE", and "View my Information".

Reporter Details

Enter Report ID

Enter Your Name


Enter Citizen ID

Enter Phone No.

The user can Insert, Delete or View their information.

This is a sample report table. Data can be inserted.

REPORT_ID	NAME	CITIZEN_ID	PHONE_NUMBER
10345	Durairaj	3401	9840550653
10346	Ranganathan	3450	9840550543
10347	Naresh	3470	9840880543
10348	Naresh	3402	9840770543
10349	Nirmala Devi	3412	9860220543
10350	Arun Pandian	3423	9840220641
10351	Harrish	3434	9860220641
10352	Subramani	3490	974563490
10354	Priya Dharshini	5470	9840440548
10355	Vijay Deva	5500	9789440548
10356	Amudhavali	5700	8569440548
10357	Jovan Christopher	5756	7899440548
10358	Venkataesan	5789	9809440548
10359	Amudhan	5790	9082345670
10360	Rida	5790	9082345670
10362	Priyanka	5790	9082345670
10363	Aaryan	5790	9082345670
10364	Vishal Deva	5500	9789440548
10365	Milind Kumar	5670	9987645780

 Reporter Details

Enter Report ID

10366

Enter Your Name

Sofia Nasir

Enter Citizen ID

8574

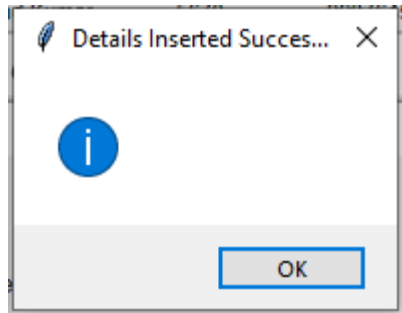
Enter Phone No.

5672438976

INSERT

DELETE

View my Information



This dialogue box confirms that the details have been inserted successfully.

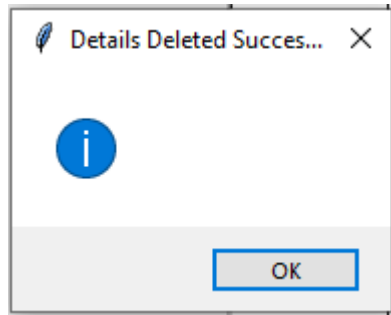
This record can then be viewed in the report table:

REPORT_ID	NAME	CITIZEN_ID	PHONE_NUMBER
10366	Sofia Nasir	8574	5672438976
10345	Durairaj	3401	9840550653
10346	Ranganathan	3450	9840550543
10347	Naresh	3470	9840880543

Similarly data can also be deleted:

A "Reporter Details" form with input fields for Report ID, Name, Citizen ID, and Phone No., and buttons for INSERT, DELETE, and View my Information.

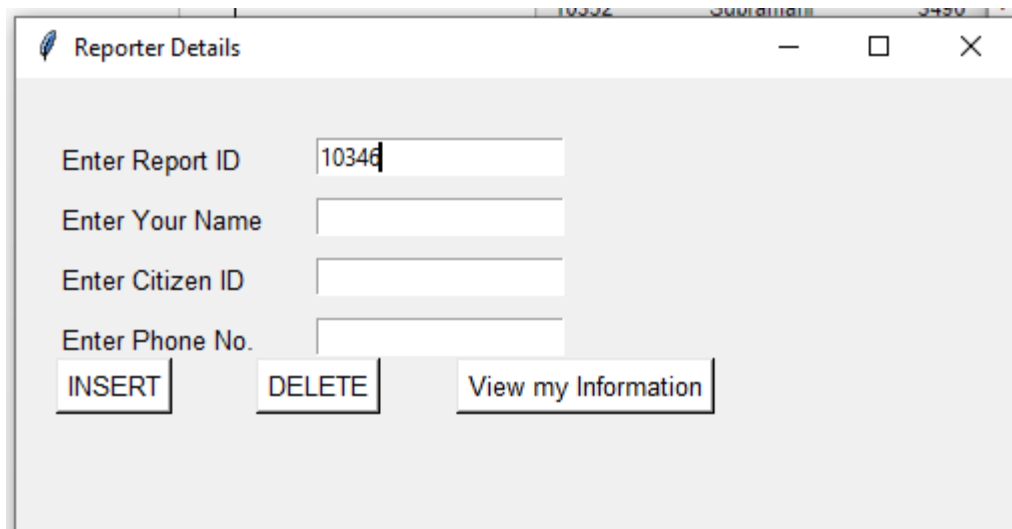
Enter Report ID	<input type="text" value="10345"/>
Enter Your Name	<input type="text"/>
Enter Citizen ID	<input type="text"/>
Enter Phone No.	<input type="text"/>
<input type="button" value="INSERT"/>	<input type="button" value="DELETE"/> <input type="button" value="View my Information"/>



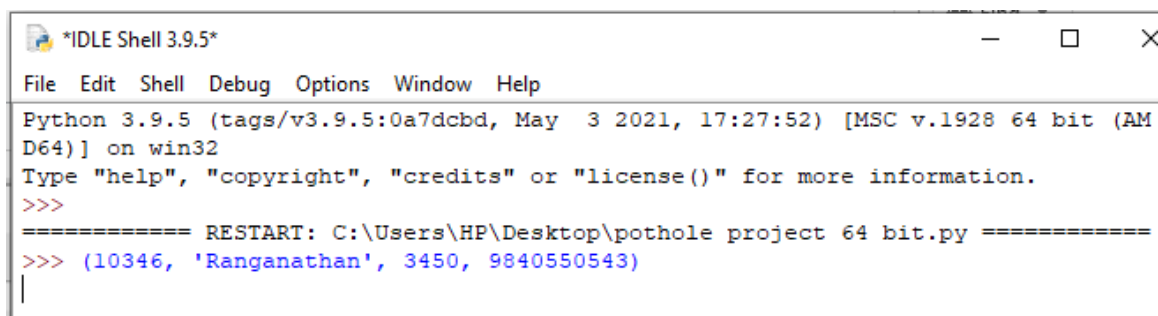
The record with ID number 10345 is hence deleted

REPORT_ID	NAME	CITIZEN_ID	PHONE_NUMBER
10366	Sofia Nasir	8574	5672438976
10346	Ranganathan	3450	9840550543
10347	Naresh	3470	9840880543
10348	Naresh	3402	9840770543
10349	Nirmala Devi	3412	9860220543
10350	Arun Pandian	3423	9840220641
10351	Harrish	3434	9860220641
10352	Subramani	3490	974563490
10354	Priya Dharshini	5470	9840440548
10355	Vijay Deva	5500	9789440548
10356	Amudhavali	5700	8569440548
10357	Jovan Christopher	5756	7899440548
10358	Venkataesan	5789	9809440548
10359	Amudhan	5790	9082345670
10360	Rida	5790	9082345670
10362	Priyanka	5790	9082345670
10363	Aaryan	5790	9082345670
10364	Vishal Deva	5500	9789440548
10365	Milind Kumar	5670	9987645780

Citizens can also view their information:

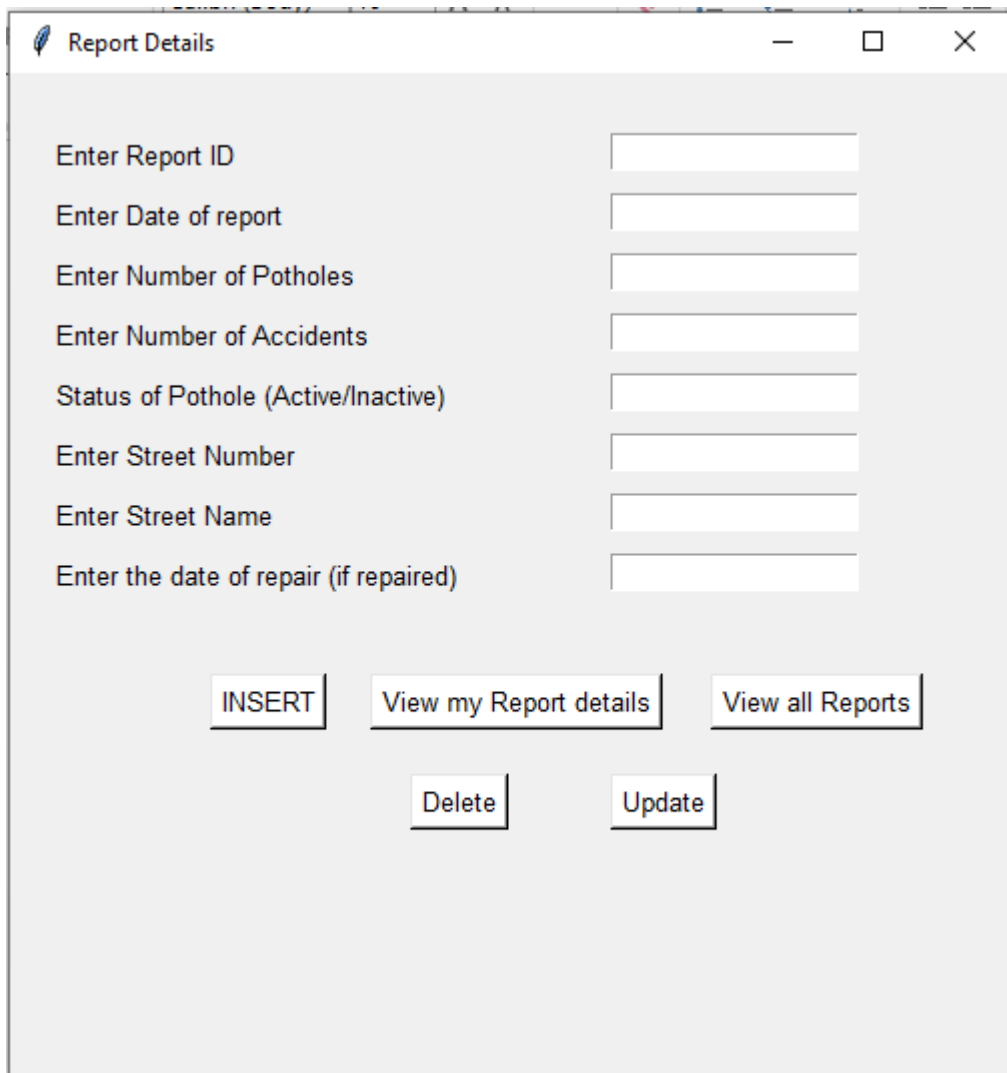


A screenshot of a web application window titled "Reporter Details". The window contains four input fields with labels: "Enter Report ID" (containing "10346"), "Enter Your Name", "Enter Citizen ID", and "Enter Phone No.". Below the input fields are three buttons: "INSERT", "DELETE", and "View my Information".



```
*IDLE Shell 3.9.5*
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdb, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\Desktop\pothole project 64 bit.py =====
>>> (10346, 'Ranganathan', 3450, 9840550543)
|
```

If the citizens select “Report details” the following window appears:



The screenshot shows a window titled "Report Details" with a standard Windows-style title bar (minimize, maximize, close buttons). The window contains a form with the following elements:

- Enter Report ID
- Enter Date of report
- Enter Number of Potholes
- Enter Number of Accidents
- Status of Pothole (Active/Inactive)
- Enter Street Number
- Enter Street Name
- Enter the date of repair (if repaired)

Below the input fields, there are five buttons arranged in two rows:

- Row 1: INSERT, View my Report details, View all Reports
- Row 2: Delete, Update

The citizens are thus allowed to insert report details, view their report details, view details of all reports, delete their records or update them.

Table report_details:

REPORT_ID	REPORT_DATE	POTHOLE_COUNT	ACCIDENTS	STATUS	STREET_NUMBER	STREET_NAME	REMOVED_DATE
10346	09/03/2021	9	0	Inactive	7	gandhi	-
10347	01/07/2020	15	6	Inactive	69	Om Street	09/04/2020
10348	02/03/2021	7	3	Inactive	63	Richi Street	10/01/2021
10349	05/12/2020	8	1	Inactive	60	Ramar Road	01/14/2021
10350	06/12/2020	10	0	Active	4	Nehru Street	-
10351	05/03/2020	8	0	Active	40	TNHB	-
10352	01/01/2020	2	0	Active	6	D block	-
10354	02/09/2021	2	9	Active	4	TNHB	-
10355	03/03/2021	8	0	Active	9	Patel Road	-
10356	06/06/2021	9	4	Inactive	5	Bankers Colony	07/06/2021
10357	05/05/2021	8	1	Active	6	Bankers Colony	-
10358	04/04/2021	4	0	Inactive	9	Talolors Road	05/04/2021
10359	03/03/2021	6	3	Inactive	10	Kumari Street	05/04/2021
10359	03/03/2021	6	3	Inactive	10	Kumari Street	05/04/2021
10360	02/03/2021	10	5	Inactive	1	Kumran Street	05/03/2021
10362	12/01/2020	10	6	Inactive	30	Vaniyar Street	04/03/2021
10363	12/03/2020	10	5	Inactive	3	Murgan Street	03/03/2021
10364	10/03/2020	11	5	Inactive	2	Murgan Street	12/03/2021
10365	07/06/2020	2	3	Inactive	41	Padur	07/09/2020

Inserting records:

Report Details

Enter Report ID

10366

Enter Date of report

14 Aug 2020

Enter Number of Potholes

4

Enter Number of Accidents

1

Status of Pothole (Active/Inactive)

Inactive

Enter Street Number

11

Enter Street Name

KV Nagar

Enter the date of repair (if repaired)

17 Aug 2020

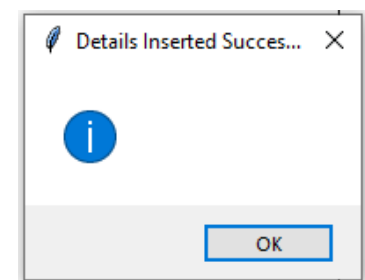
INSERT

View my Report details

View all Reports

Delete

Update



10363	12/03/2020	10	5	Inactive	3	Murgan Street	03/03/2021
10364	10/03/2020	11	5	Inactive	2	Murgan Street	12/03/2021
10366	08/14/2020	4	1	Inactive	11	KV Nagar	08/17/2020
10365	07/06/2020	2	3	Inactive	41	Padur	07/09/2020

Viewing my report details:

Report Details

Enter Report ID

10366

Enter Date of report

Enter Number of Potholes

Enter Number of Accidents

Status of Pothole (Active/Inactive)

Enter Street Number

Enter Street Name

Enter the date of repair (if repaired)

INSERT

View my Report details

View all Reports

Delete

Update

```


Python 3.9.5
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdbd, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\Desktop\pothole project 64 bit.py =====
>>> (10366, datetime.datetime(2020, 8, 14, 0, 0), 4, 1, 'Inactive', 11, 'KV Nagar', datetime.datetime(2020, 8, 17, 0, 0))
|

```

View all reports:

```
[(10346, datetime.datetime(2021, 9, 3, 0, 0), 9, 0, 'Inactive', 7, 'gandhi', None), (10347, datetime.datetime(2020, 1, 7, 0, 0), 15, 6, 'Inactive', 69, 'Om Street', datetime.datetime(2020, 9, 4, 0, 0)), (10348, datetime.datetime(2021, 2, 3, 0, 0), 7, 3, 'Inactive', 63, 'Richi Street', datetime.datetime(2021, 10, 1, 0, 0)), (10349, datetime.datetime(2020, 5, 12, 0, 0), 8, 1, 'Inactive', 60, 'Ramar Road', datetime.datetime(2021, 1, 14, 0, 0)), (10350, datetime.datetime(2020, 6, 12, 0, 0), 10, 0, 'Active', 4, 'Nehru Street', None), (10351, datetime.datetime(2020, 5, 3, 0, 0), 8, 0, 'Active', 40, 'TNHB', None), (10352, datetime.datetime(2020, 1, 1, 0, 0), 2, 0, 'Active', 6, 'D block', None), (10354, datetime.datetime(2021, 2, 9, 0, 0), 2, 9, 'Active', 4, 'TNHB', None), (10355, datetime.datetime(2021, 3, 3, 0, 0), 8, 0, 'Active', 9, 'Patel Road', None), (10356, datetime.datetime(2021, 6, 6, 0, 0), 9, 4, 'Inactive', 5, 'Bankers Colony', datetime.datetime(2021, 7, 6, 0, 0)), (10357, datetime.datetime(2021, 5, 5, 0, 0), 8, 1, 'Active', 6, 'Bankers Colony', None), (10358, datetime.datetime(2021, 4, 4, 0, 0), 4, 0, 'Inactive', 9, 'Taliors Road', datetime.datetime(2021, 5, 4, 0, 0)), (10359, datetime.datetime(2021, 3, 3, 0, 0), 6, 3, 'Inactive', 10, 'Kumari Street', datetime.datetime(2021, 5, 4, 0, 0)), (10360, datetime.datetime(2021, 3, 3, 0, 0), 6, 3, 'Inactive', 10, 'Kumari Street', datetime.datetime(2021, 5, 4, 0, 0)), (10362, datetime.datetime(2020, 12, 1, 0, 0), 10, 6, 'Inactive', 30, 'Vaniyar Street', datetime.datetime(2021, 4, 3, 0, 0)), (10363, datetime.datetime(2020, 12, 3, 0, 0), 1, 0, 5, 'Inactive', 3, 'Murgan Street', datetime.datetime(2021, 3, 3, 0, 0)), (10364, datetime.datetime(2020, 10, 3, 0, 0), 11, 5, 'Inactive', 2, 'Murgan Street', datetime.datetime(2021, 12, 3, 0, 0)), (10366, datetime.datetime(2020, 8, 14, 0, 0), 4, 1, 'Inactive', 11, 'KV Nagar', datetime.datetime(2020, 8, 17, 0, 0)), (10365, datetime.datetime(2020, 7, 6, 0, 0), 2, 3, 'Inactive', 41, 'Padur', datetime.datetime(2020, 7, 9, 0, 0))]
```

Update data:

 Report Details

Enter Report ID	<input type="text" value="10366"/>
Enter Date of report	<input type="text" value="13 May 2021"/>
Enter Number of Potholes	<input type="text" value="2"/>
Enter Number of Accidents	<input type="text" value="1"/>
Status of Pothole (Active/Inactive)	<input type="text" value="Inactive"/>
Enter Street Number	<input type="text" value="32"/>
Enter Street Name	<input type="text" value="Rajiv Gandhi"/>
Enter the date of repair (if repaired)	<input type="text" value="15 May 2020"/>

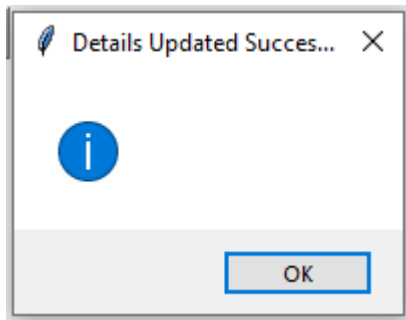
INSERT

View my Report details

View all Reports

Delete

Update



10362	12/07/2020	10	0	Inactive	30	Valliyal Street	04/03/2021
10363	12/03/2020	10	5	Inactive	3	Murgan Street	03/03/2021
10364	10/03/2020	11	5	Inactive	2	Murgan Street	12/03/2021
10366	05/13/2021	2	1	Inactive	32	Rajiv Gandhi	05/15/2020
10365	07/06/2020	2	3	Inactive	41	Padur	07/09/2020

Deleting Data:

Report Details

Enter Report ID

10366

Enter Date of report

Enter Number of Potholes

Enter Number of Accidents

Status of Pothole (Active/Inactive)

Enter Street Number

Enter Street Name

Enter the date of repair (if repaired)

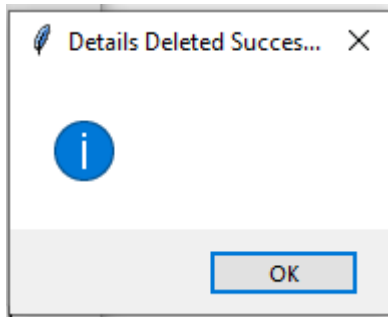
INSERT

View my Report details

View all Reports

Delete

Update

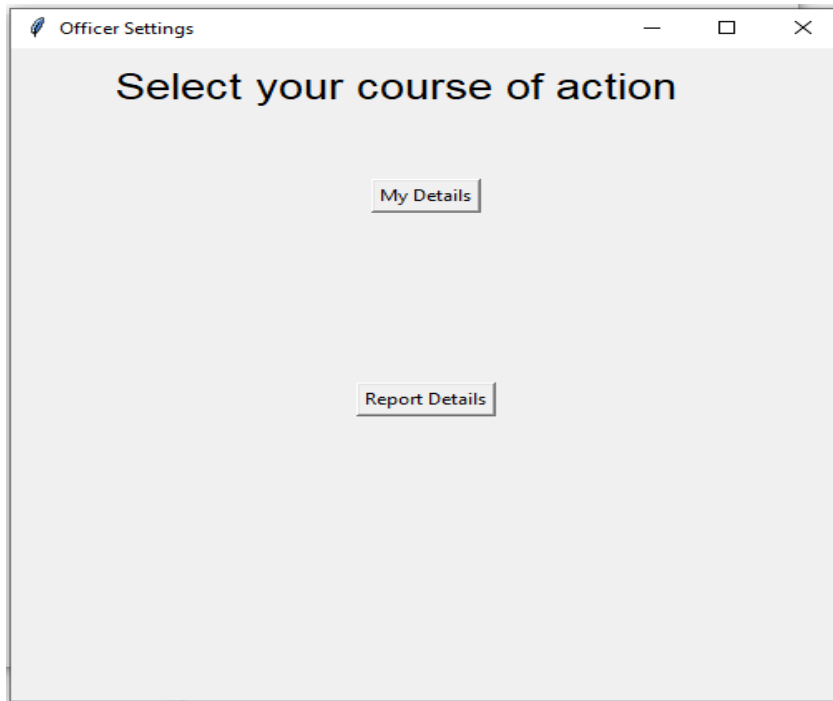


Record 10366 deted

REPORT_ID	REPORT_DATE	POTHOLE_COUNT	ACCIDENTS	STATUS	STREET_NUMBER	STREET_NAME	REMOVED_DATE
10346	09/03/2021	9	0	Inactive	7	gandhi	-
10347	01/07/2020	15	6	Inactive	69	Om Street	09/04/2020
10348	02/03/2021	7	3	Inactive	63	Richi Street	10/01/2021
10349	05/12/2020	8	1	Inactive	60	Ramar Road	01/14/2021
10350	06/12/2020	10	0	Active	4	Nehru Street	-
10351	05/03/2020	8	0	Active	40	TNHB	-
10352	01/01/2020	2	0	Active	6	D block	-
10354	02/09/2021	2	9	Active	4	TNHB	-
10355	03/03/2021	8	0	Active	9	Patel Road	-
10356	06/06/2021	9	4	Inactive	5	Bankers Colony	07/06/2021
10357	05/05/2021	8	1	Active	6	Bankers Colony	-
10358	04/04/2021	4	0	Inactive	9	Taiolors Road	05/04/2021
10359	03/03/2021	6	3	Inactive	10	Kumari Street	05/04/2021
10359	03/03/2021	6	3	Inactive	10	Kumari Street	05/04/2021
10360	02/03/2021	10	5	Inactive	1	Kumran Street	05/03/2021
10362	12/01/2020	10	6	Inactive	30	Vaniyar Street	04/03/2021
10363	12/03/2020	10	5	Inactive	3	Murgan Street	03/03/2021
10364	10/03/2020	11	5	Inactive	2	Murgan Street	12/03/2021
10365	07/06/2020	2	3	Inactive	41	Padur	07/09/2020

II. Officer:

If the user selects 'Officer' while logging in, the following window appears:



Officer Settings

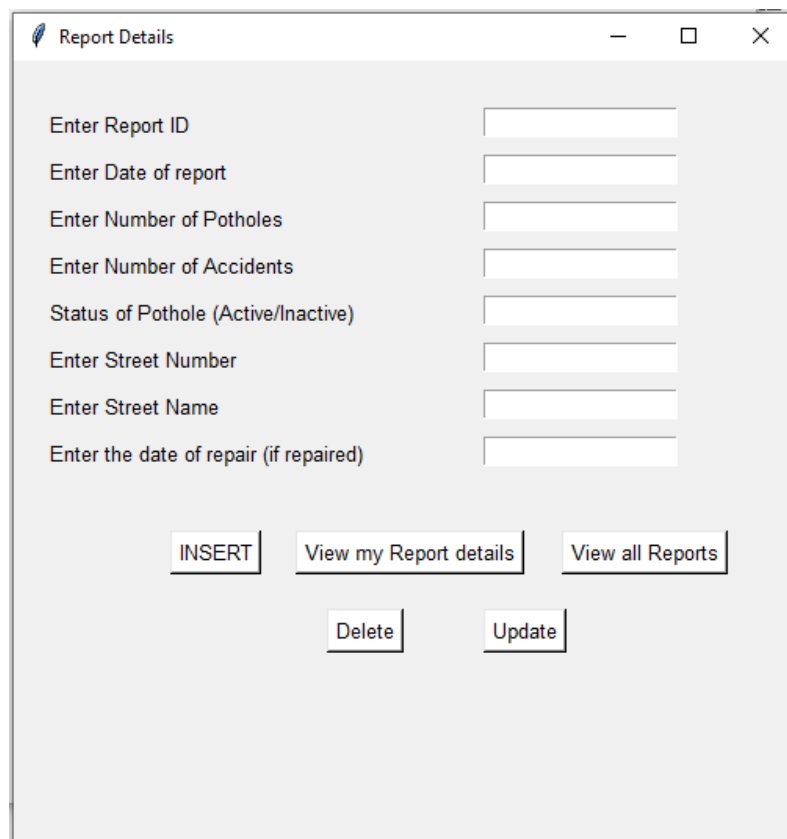
Select your course of action

My Details

Report Details

This is a screenshot of a web application window titled "Officer Settings". It features a light gray background and a white header bar with the title and standard window controls (minimize, maximize, close). The main content area has the heading "Select your course of action" in a large, bold, black font. Below this heading, there are two rectangular buttons with black borders and text: "My Details" and "Report Details".

Selecting Report Details allows the officer to access the same windows and options as the citizens:



Report Details

Enter Report ID

Enter Date of report

Enter Number of Potholes

Enter Number of Accidents

Status of Pothole (Active/Inactive)

Enter Street Number

Enter Street Name

Enter the date of repair (if repaired)

INSERT View my Report details View all Reports

Delete Update

This is a screenshot of a web application window titled "Report Details". It has a light gray background and a white header bar with the title and standard window controls. The form contains several input fields with labels: "Enter Report ID", "Enter Date of report", "Enter Number of Potholes", "Enter Number of Accidents", "Status of Pothole (Active/Inactive)", "Enter Street Number", "Enter Street Name", and "Enter the date of repair (if repaired)". At the bottom of the form, there are five buttons: "INSERT", "View my Report details", "View all Reports", "Delete", and "Update".

If the officer selects “My details” the following window pops up:

The screenshot shows a window titled "Officer Details" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there are three input fields stacked vertically, each with a label to its left: "Enter Officer ID", "Enter Your Name", and "Enter Phone No.". Below these fields are five buttons arranged in three rows. The first row contains "INSERT" and "DELETE". The second row contains "VIEW MY DETAILS" and "VIEW MY RESPONSIBILITY". The third row contains "VIEW ALL DUTIES". All buttons have a light gray background and a thin black border.

Through this window officers can insert or delete data which will be reflected in the table: "Officer"

OFFICER_ID	OFFICER_NAME	PHONE_NUMBER
1096	Ritvik Brar	8870908741
1248	Karan Singh	9963578861
1435	Maithli Sharma	8093445623
1673	Joseph Lewis	9756743276
1598	Hiba Ali	7764588903
1274	Diksha Shetty	9763445678
1389	Akhil Gupta	7763345289
1743	Abhimanyu Singh	8897456678

Insert:

Officer Details

Enter Officer ID

1368

Enter Your Name

Zoya Khot

Enter Phone No.

9987469086

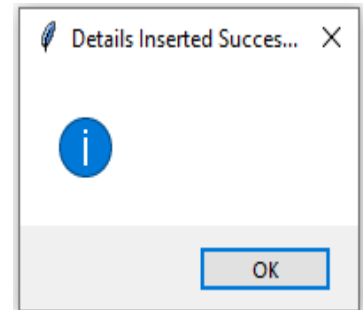
INSERT

DELETE

VIEW MY DETAILS

VIEW MY RESPONSIBILITY

VIEW ALL DUTIES



OFFICER_ID	OFFICER_NAME	PHONE_NUMBER
1096	Ritvik Brar	8870908741
1248	Karan Singh	9963578861
1435	Maithli Sharma	8093445623
1673	Joseph Lewis	9756743276
1598	Hiba Ali	7764588903
1274	Diksha Shetty	9763445678
1389	Akhil Gupta	7763345289
1368	Zoya Khot	9987469086
1743	Abhimanyu Singh	8897456678

Delete:

Officer Details

Enter Officer ID

1598

Enter Your Name

Enter Phone No.

INSERT

DELETE

VIEW MY DETAILS

VIEW MY RESPONSIBILITY

VIEW ALL DUTIES

Details Deleted Succes...

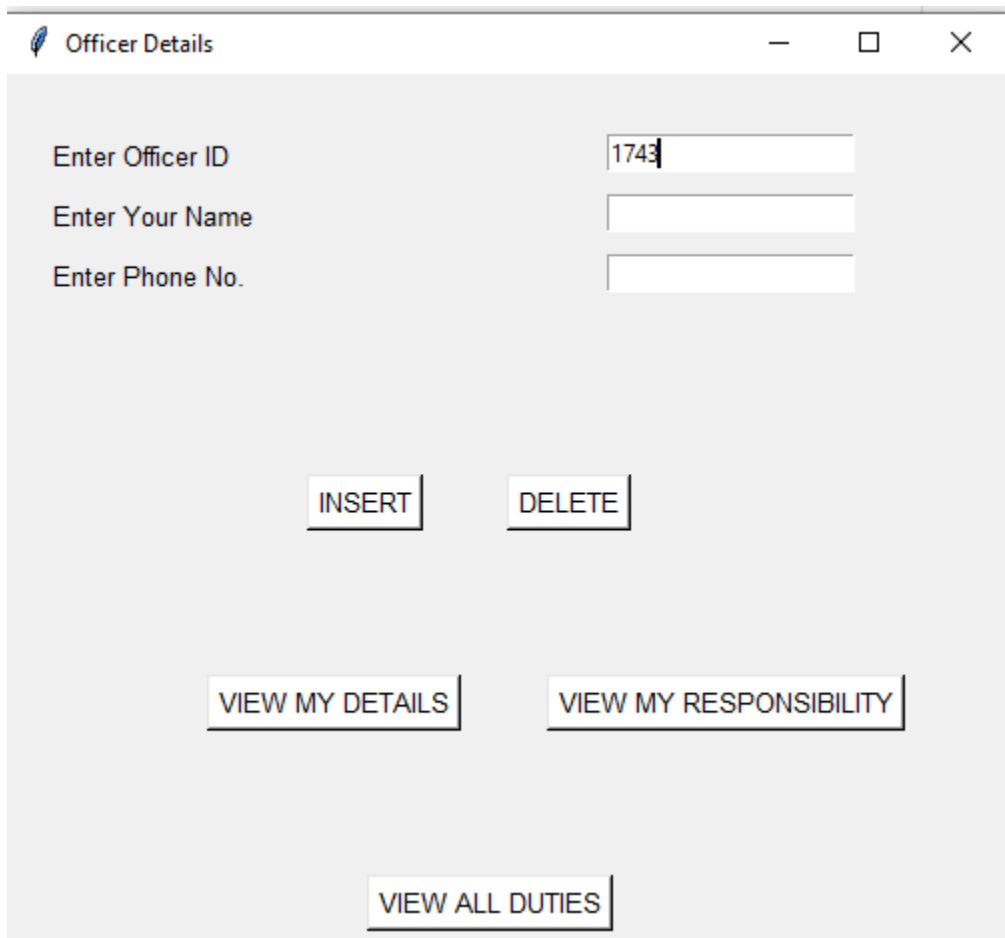
i

OK

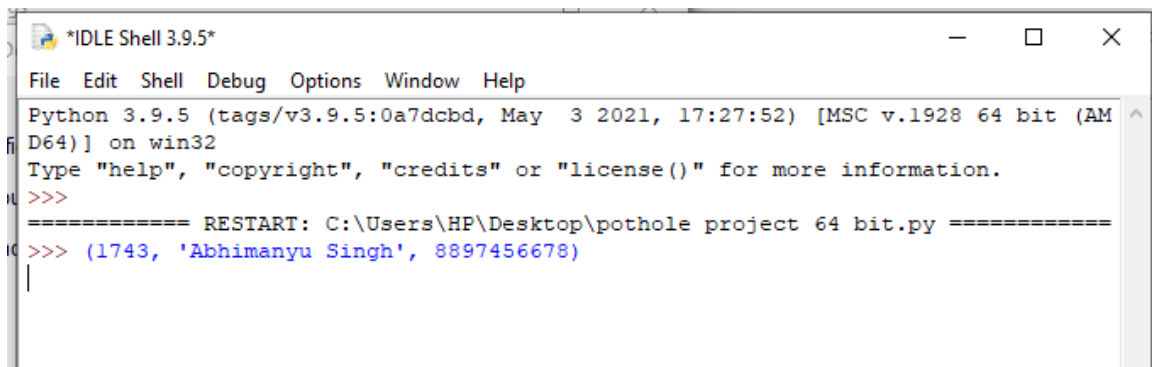
OFFICER_ID	OFFICER_NAME	PHONE_NUMBER
1096	Ritvik Brar	8870908741
1248	Karan Singh	9963578861
1435	Maithli Sharma	8093445623
1673	Joseph Lewis	9756743276
1274	Diksha Shetty	9763445678
1389	Akhil Gupta	7763345289
1368	Zoya Khot	9987469086
1743	Abhimanyu Singh	8897456678

Record 1598 deleted.

The officers can also view their details:

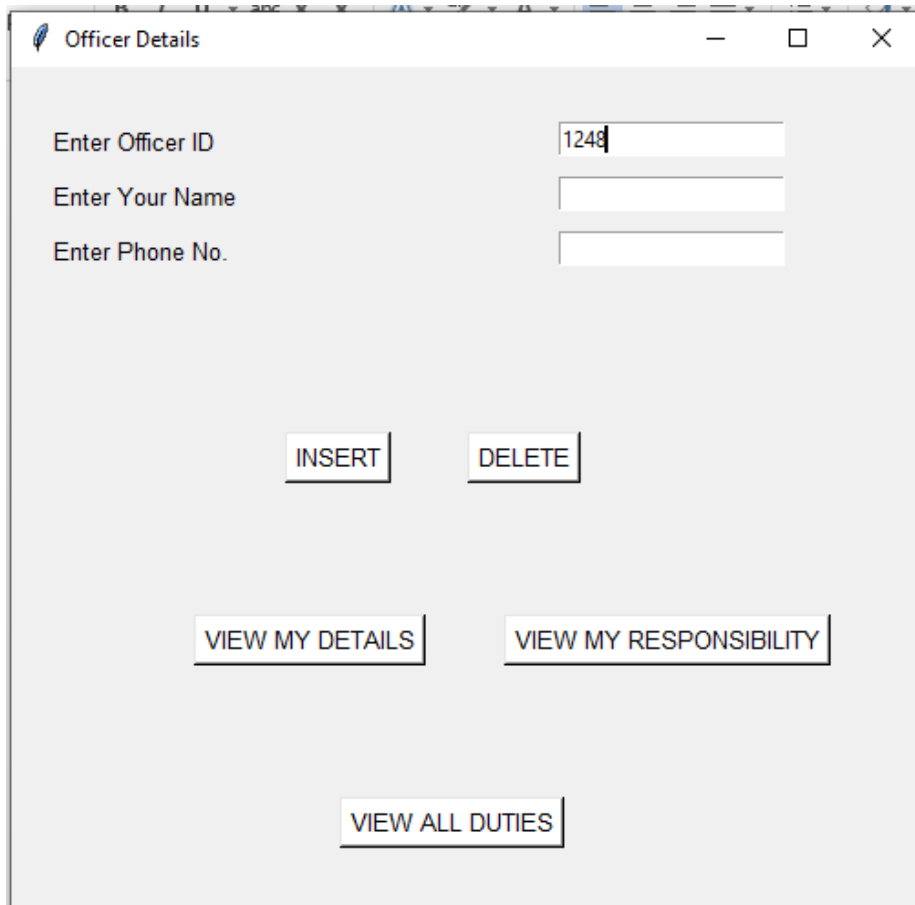


The screenshot shows a window titled "Officer Details" with a light gray background. It contains three input fields for "Enter Officer ID", "Enter Your Name", and "Enter Phone No.". The "Enter Officer ID" field has the value "1743" entered. Below the input fields are four buttons: "INSERT", "DELETE", "VIEW MY DETAILS", and "VIEW MY RESPONSIBILITY". At the bottom of the window is a button labeled "VIEW ALL DUTIES".

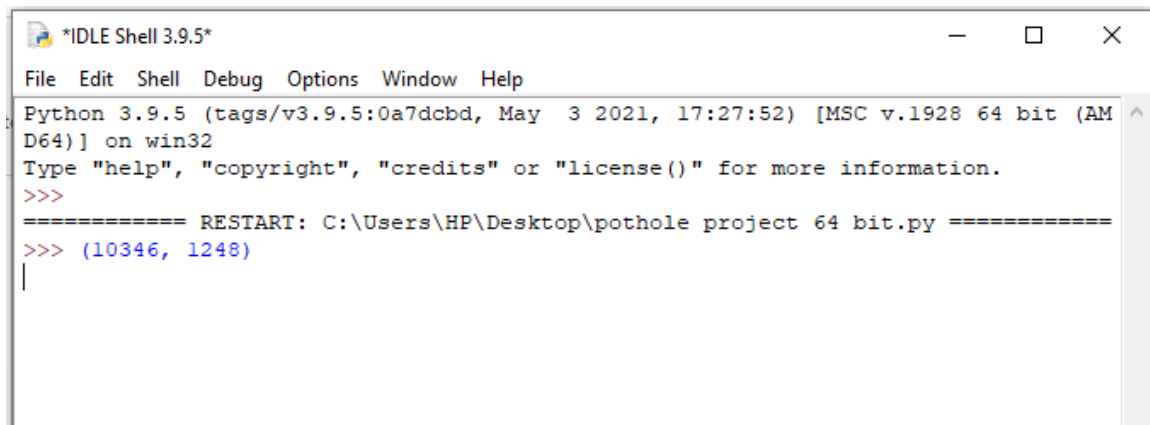


```
Python 3.9.5 (tags/v3.9.5:0a7dcbd, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\Desktop\pothole project 64 bit.py =====
>>> (1743, 'Abhimanyu Singh', 8897456678)
```

Clicking on view responsibility allows the officer to view their id and the report_id of the report that they are in charge of:



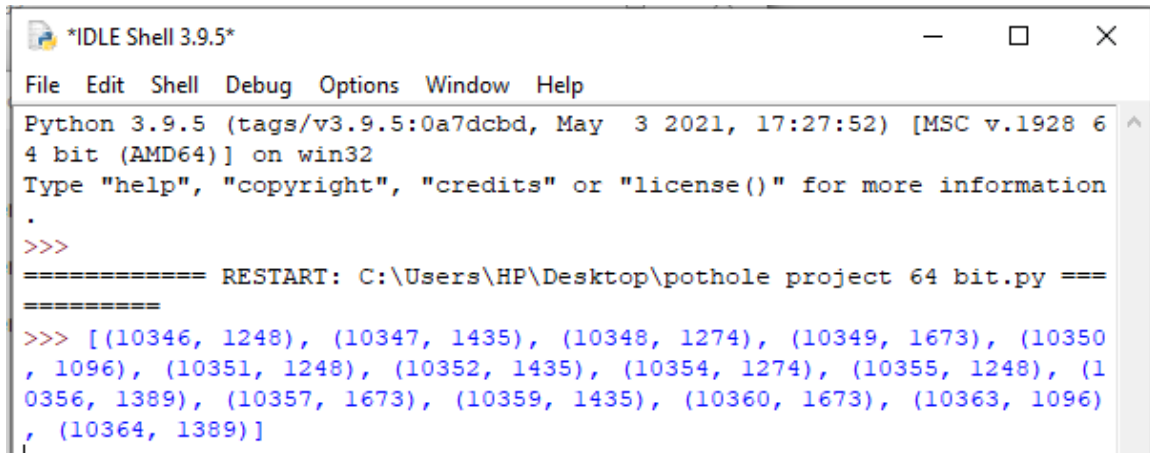
The screenshot shows a window titled "Officer Details" with a light gray background. It contains three input fields: "Enter Officer ID" with the value "1248", "Enter Your Name", and "Enter Phone No.". Below these fields are three buttons: "INSERT", "DELETE", and "VIEW MY DETAILS". At the bottom, there is a button labeled "VIEW MY RESPONSIBILITY" and another button labeled "VIEW ALL DUTIES".



```
*IDLE Shell 3.9.5*
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdb, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\HP\Desktop\pothole project 64 bit.py =====
>>> (10346, 1248)
|
```

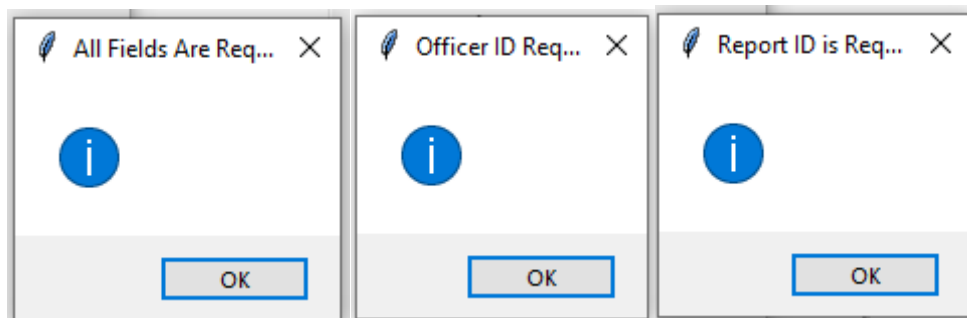
This report_id can then be entered in report_details and all of the details of that report can be viewed.

The officer can also view the duties of all officers by simply clicking on “View all duties”



```
*IDLE Shell 3.9.5*
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdbd, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information
>>>
===== RESTART: C:\Users\HP\Desktop\pothole project 64 bit.py =====
>>> [(10346, 1248), (10347, 1435), (10348, 1274), (10349, 1673), (10350, 1096), (10351, 1248), (10352, 1435), (10354, 1274), (10355, 1248), (10356, 1389), (10357, 1673), (10359, 1435), (10360, 1673), (10363, 1096), (10364, 1389)]
```

Moreover, at any point if any required data has not been entered a dialogue box appears:



Codes

```
import cx_Oracle
con = cx_Oracle.connect('xe/xe@localhost')
cursor = con.cursor()
import tkinter
from tkinter import *
import tkinter.messagebox as MessageBox

login=Tk()

def insert_rep():
    repid=report_id.get();
    citname=name.get();
    citid=citizen_id.get();
    num=phone_number.get();

    if(repid=="" or citname=="" or citid=="" or num==""):
        MessageBox.showinfo("All Fields Are Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("insert into Report values('"+ repid + "','"+ citname + "','"+ citid + "','"+ num + "')")
        cursor.execute("commit")

        MessageBox.showinfo("Details Inserted Successfully")
        con.close()

def delete_rep():
    if(report_id.get()==""):
        MessageBox.showinfo("Report ID is Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("delete from Report where report_id='"+ report_id.get() +"'")
        cursor.execute("delete from Report_details where report_id='"+ report_id.get() +"'")
        cursor.execute("delete from report_officer where report_id='"+ report_id.get() +"'")
        cursor.execute("commit")

        MessageBox.showinfo("Details Deleted Successfully")
        con.close()

def select_rep():
    if(report_id.get()==""):
        MessageBox.showinfo("Report ID is Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("select * from Report where report_id='"+ report_id.get() +"'")
        row = cursor.fetchone()
        print(row)
        cursor.execute("commit")

        con.close()
```

```

def reporter():
    global report_id
    global name
    global citizen_id
    global phone_number
    rep_window=Toplevel(login)
    rep_window.geometry('500x500')
    rep_window.title("Reporter Details")

    id=Label(rep_window,text='Enter Report ID',font=('bold',10))
    id.place(x=20,y=30)

    r_name=Label(rep_window,text='Enter Your Name',font=('bold',10))
    r_name.place(x=20,y=60)

    ctzn_id=Label(rep_window,text='Enter Citizen ID',font=('bold',10))
    ctzn_id.place(x=20,y=90)

    phone=Label(rep_window,text='Enter Phone No.',font=('bold',10))
    phone.place(x=20,y=120);

    report_id=Entry(rep_window)
    report_id.place(x=150,y=30)

    name=Entry(rep_window)
    name.place(x=150,y=60)

    citizen_id=Entry(rep_window)
    citizen_id.place(x=150,y=90)

    phone_number=Entry(rep_window)
    phone_number.place(x=150,y=120)

    insert=Button(rep_window,text="INSERT",font=('bold',10),bg='white',command=insert_rep)
    insert.place(x=20,y=140)

    delete=Button(rep_window,text="DELETE",font=('bold',10),bg='white',command=delete_rep)
    delete.place(x=120,y=140)

    select=Button(rep_window,text="View my Information",font=('bold',10),bg='white',command=select_rep)
    select.place(x=220,y=140)

    rep_window.mainloop()

def insert_repdet():
    repid=rep_id.get();
    repdate=rep_date.get();
    pot=pot_count.get();
    accident=acci.get();
    status=stat.get();
    stnum=street_no.get();
    stname=street.get();
    remdate=rmv_date.get();

    if(repid=="" or repdate=="" or pot=="" or accident=="" or status=="" or stnum=="" or stname=="" or remdate==""):
        MessageBox.showinfo("All Fields Are Required");

```

```

        MessageBox.showinfo("Details Inserted Successfully")
        con.close()

def select_repdet():
    con = cx_Oracle.connect('xe/xe@localhost')
    cursor = con.cursor()
    cursor.execute("insert into Report_details values('"+repid+"','"+repdate+"','"+pot+"','"+accident+"','"+status+"','"+stnum+"','"+stname+"','"+remdate+"')")
    cursor.execute("commit")

    MessageBox.showinfo("Details Inserted Successfully")
    con.close()

def selectspcfc_repdet():
    repid=rep_id.get();

    if(repid==""):
        MessageBox.showinfo("Report ID is Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("select * from Report_details where report_id='"+repid+"'")
        row = cursor.fetchone()
        print(row)
        cursor.execute("commit")

    con.close()

def delete_repdet():
    if(rep_id.get()==""):
        MessageBox.showinfo("Report ID is Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("delete from Report where report_id='"+repid+"'")
        cursor.execute("delete from Report_details where report_id='"+repid+"'")
        cursor.execute("delete from report_officer where report_id='"+repid+"'")
        cursor.execute("commit")

        MessageBox.showinfo("Details Deleted Successfully")
        con.close()

def update_repdet():
    repid=rep_id.get();
    repdate=rep_date.get();
    pot=pot_count.get();
    accident=accident.get();
    status=status.get();
    stnum=street_no.get();
    stname=street.get();
    remdate=rmv_date.get();

    if(repid=="" or repdate=="" or pot=="" or accident=="" or status=="" or stnum=="" or stname=="" or remdate==""):
        MessageBox.showinfo("All Fields Are Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("update Report_details set report_date='"+repdate+"',pothole_count='"+pot+"',Accidents='"+accident+"',status='"+status+"',stnum='"+stnum+"',stname='"+stname+"',remdate='"+remdate+"'")
        cursor.execute("commit")

        MessageBox.showinfo("Details Updated Successfully")
        con.close()

```

```

def report_det():
    global rep_id
    global rep_date
    global pot_count
    global acci
    global stat
    global street_no
    global street
    global rmv_date

    repdet_window=Toplevel(login)
    repdet_window.geometry('500x500')
    repdet_window.title("Report Details")

    rid=Label(repdet_window,text='Enter Report ID',font=('bold',10))
    rid.place(x=20,y=30)

    rdate=Label(repdet_window,text='Enter Date of report',font=('bold',10))
    rdate.place(x=20,y=60)

    rcount=Label(repdet_window,text='Enter Number of Potholes',font=('bold',10))
    rcount.place(x=20,y=90)

    racci=Label(repdet_window,text='Enter Number of Accidents',font=('bold',10))
    racci.place(x=20,y=120)

    rstat=Label(repdet_window,text='Status of Pothole (Active/Inactive)',font=('bold',10))
    rstat.place(x=20,y=150)

    rsttrtno=Label(repdet_window,text='Enter Street Number',font=('bold',10))
    rsttrtno.place(x=20,y=180)

    rsttrt=Label(repdet_window,text='Enter Street Name',font=('bold',10))
    rsttrt.place(x=20,y=210)

    rrmvdate=Label(repdet_window,text='Enter the date of repair (if repaired)',font=('bold',10))
    rrmvdate.place(x=20,y=240)

    rep_id=Entry(repdet_window)
    rep_id.place(x=300,y=30)

    rep_date=Entry(repdet_window)
    rep_date.place(x=300,y=60)

    pot_count=Entry(repdet_window)
    pot_count.place(x=300,y=90)

    acci=Entry(repdet_window)
    acci.place(x=300,y=120)

    stat=Entry(repdet_window)
    stat.place(x=300,y=150)

    street_no=Entry(repdet_window)
    street_no.place(x=300,y=180)

    street=Entry(repdet_window)
    street.place(x=300,y=210)

    rmv_date=Entry(repdet_window)
    rmv_date.place(x=300,y=240)

    insert=Button(repdet_window,text="INSERT",font=('bold',10),bg='white',command=insert_repdet)
    insert.place(x=100,y=300)

    select=Button(repdet_window,text="View all Reports",font=('bold',10),bg='white',command=select_repdet)
    select.place(x=350,y=300)

    selectspcfc=Button(repdet_window,text="View my Report details",font=('bold',10),bg='white',command=selectspcfc_repdet)
    selectspcfc.place(x=180,y=300)

    delete=Button(repdet_window,text="Delete",font=('bold',10),bg='white',command=delete_repdet)
    delete.place(x=200,y=350)

    update=Button(repdet_window,text="Update",font=('bold',10),bg='white',command=update_repdet)
    update.place(x=300,y=350)

    repdet_window.mainloop()

```



```

def insert_ofcrdet():
    off_id=ofcr_id.get();
    off_name=ofcr_name.get();
    num=p_num.get();

    if(off_id=="" or off_name=="" or num==""):
        MessageBox.showinfo("All Fields Are Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("insert into Officer values('"+ off_id + "','"+ off_name + "','"+ num + "')")
        cursor.execute("commit")

        MessageBox.showinfo("Details Inserted Successfully")
        con.close()

def delete_ofcrdet():
    off_id=ofcr_id.get();
    if(off_id==""):
        MessageBox.showinfo("Officer ID Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("delete from Officer where officer_ID='"+ off_id + "'")
        cursor.execute("delete from report_officer where officer_ID='"+ off_id + "'")
        cursor.execute("commit")

        MessageBox.showinfo("Details Deleted Successfully")
        con.close()

def select_ofcrdet():
    off_id=ofcr_id.get();
    if(off_id==""):
        MessageBox.showinfo("Officer ID Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("select * from Officer where officer_ID='"+ off_id + "'")
        row = cursor.fetchone()
        print(row)
        cursor.execute("commit")
        con.close()

def resp_ofcrdet():
    off_id=ofcr_id.get();
    if(off_id==""):
        MessageBox.showinfo("Officer ID Required");
    else:
        con = cx_Oracle.connect('xe/xe@localhost')
        cursor = con.cursor()
        cursor.execute("select * from report_officer where officer_ID='"+ off_id + "'")
        row = cursor.fetchone()
        print(row)
        cursor.execute("commit")
        con.close()

def dut_ofcrdet():
    con = cx_Oracle.connect('xe/xe@localhost')
    cursor = con.cursor()
    cursor.execute("select * from report_officer")
    row = cursor.fetchall()
    print(row)
    cursor.execute("commit")
    con.close()

```

```

def officer():
    global ofcr_id
    global ofcr_name
    global p_num

    ofcrdet_window=Toplevel(login)
    ofcrdet_window.geometry('500x500')
    ofcrdet_window.title("Officer Details")

    ofid=Label(ofcrdet_window,text='Enter Officer ID',font=('bold',10))
    ofid.place(x=20,y=30)

    o_name=Label(ofcrdet_window,text='Enter Your Name',font=('bold',10))
    o_name.place(x=20,y=60)

    o_phone=Label(ofcrdet_window,text='Enter Phone No.',font=('bold',10))
    o_phone.place(x=20,y=90)

    ofcr_id=Entry(ofcrdet_window)
    ofcr_id.place(x=300,y=30)

    ofcr_name=Entry(ofcrdet_window)
    ofcr_name.place(x=300,y=60)

    p_num=Entry(ofcrdet_window)
    p_num.place(x=300,y=90)

    insert=Button(ofcrdet_window,text="INSERT",font=('bold',10),bg='white',command=insert_ofcrdet)
    insert.place(x=150,y=200)

    delete=Button(ofcrdet_window,text="DELETE",font=('bold',10),bg='white',command=delete_ofcrdet)
    delete.place(x=250,y=200)

    select=Button(ofcrdet_window,text="VIEW MY DETAILS",font=('bold',10),bg='white',command=select_ofcrdet)
    select.place(x=100,y=300)

    view=Button(ofcrdet_window,text="VIEW MY RESPONSIBILITY",font=('bold',10),bg='white',command=resp_ofcrdet)
    view.place(x=270,y=300)

    view2=Button(ofcrdet_window,text="VIEW ALL DUTIES",font=('bold',10),bg='white',command=dut_ofcrdet)
    view2.place(x=180,y=400)

    ofcrdet_window.mainloop()

def cit_setting():
    ctzn_window=Toplevel(login)
    ctzn_window.geometry("500x500")
    ctzn_window.title("Citizen Settings")
    lbl=Label(ctzn_window,text="Select your course of action. \n We appreciate your service",
              font=('bold',20))
    lbl.place(x=60,y=10)

    btn=Button(ctzn_window,text='My Details',command=reporter)
    btn.pack(padx=80,pady=100)

    btn=Button(ctzn_window,text='Report Details',command=report_det)
    btn.pack(padx=60,pady=30)

def off_setting():
    ofcr_window=Toplevel(login)
    ofcr_window.geometry("500x500")
    ofcr_window.title("Officer Settings")
    lbl=Label(ofcr_window,text="Select your course of action",font=('bold',20))
    lbl.place(x=60,y=10)

    btn=Button(ofcr_window,text='My Details',command=officer)
    btn.pack(padx=80,pady=100)

    btn=Button(ofcr_window,text='Report Details',command=report_det)
    btn.pack(padx=60,pady=30)

```

```
btn=Button(login,text='Citizen',command=cit_setting)
btn.pack(padx=80,pady=100)

btn= Button(login,text='Officer',command=off_setting)
btn.pack(padx=60,pady=30)

select=Label(login,text="Select User Category",font=('bold',20))
select.place(x=100,y=20)

login.geometry("500x500")
login.title("Login")
```