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# UAE METRO SYSTEM PROJECT SYNOPSIS



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# **ACKNOWLEDGMENT**

I would like to express my special thanks of gratitude to my teacher **Mrs. Lekshmi Sunil** as well as our principal **Mr. Neeraj Bhargava** sir who gave me golden opportunity to do this project of **Computer Science**, which also helped me in doing a lot of research and I came to know new things about it. Without their help, guidance and support it would be impossible to complete this project.

Secondly, I would also like to thank my parents and friends who helped me a lot in finishing this project within limited time. I am making this project not only for marks but also to increase my knowledge. Once again thanks to all who helped me in doing this project.

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# TOPIC OF THE PROJECT

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UAE METRO  
SYSTEM

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2021-22

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# **AIM OF THE PROJECT**

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The UAE has become a digital country all in all. From our visa scanning to our ice cream machines they all have become a mechanical in their own right.

So why should our Metro systems be different?

I have created a metro booking system where one can get their metro ticket to any of the seven emirates with just the click of three buttons.

My software can be implemented right this moment in metro stations around the United Arab Emirates. It aims to be the leading software used in metro systems around the globe one day.

This software is the ultimate system by which a customer can get their metro ticket easily and efficiently!

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# **FUNCTIONS AND MODULES**

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# MODULES

## **import mysql.connector:**

By importing this package, we are able to establish the connection between SQL and Python. And ensure easy transformation on data into the SQL server.

## **import turtle:**

This package provides functions for intricate shapes and pictures to be easily drawn.

## **import tkinter:**

This package is the standard Python interface to the GUI toolkit. Its functions can be used to create Labels, Buttons, Entry fields etc.

## **import math:**

This package is the standard one used to bring in common math functions and to easily incorporate them into your program.



# **FUNCTIONS**

## **welcome():**

This is the first screen you see in the software it welcomes the customer and shows a picture of the metro running.

## **opeen():**

This function allows the user to chose between the customer and administrator interfaces.

## **fetchall():**

This function will return all the rows from the result set in the form of a tuple containing the records.

## **rates():**

This displays the rates for the trip to each of the seven emirates and the discount if you are a special citizen.

## **booking():**

This displays the user interface where the customer can input their destination, their quantity of tickets,

## **submit1():**

This finds out input from customer. And calculates the total bill amount then displays it to the customer.

**display():**

If you're signed in as administrator, then you are able to view and display the customer record.

**update():**

If you're signed in as administrator, then you are able to view and update a customer record.

**delete():**

If you're signed in as administrator, then you are able to view and delete a customer record.

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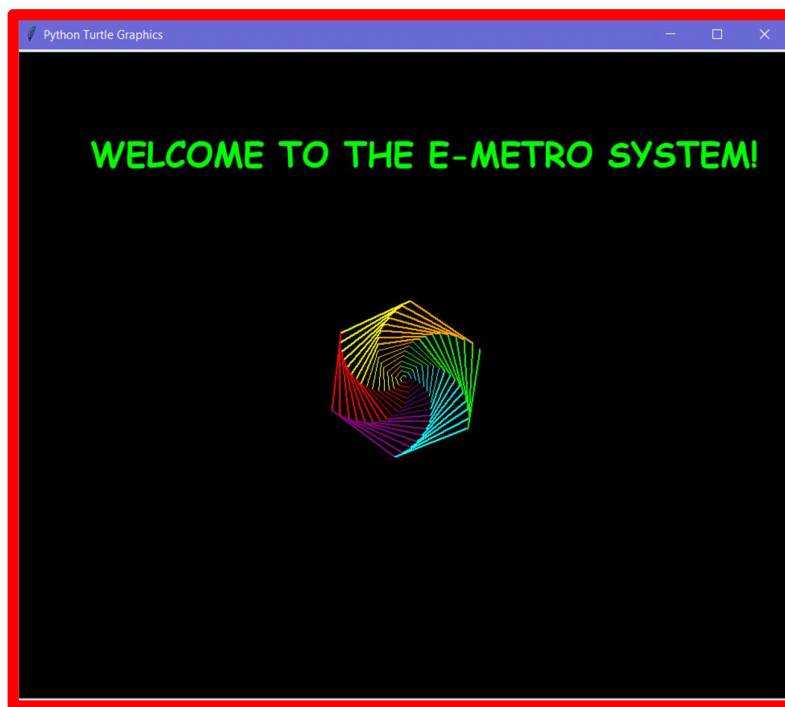
# **BRIEF DESCRIPTION OF THE PROJECT**

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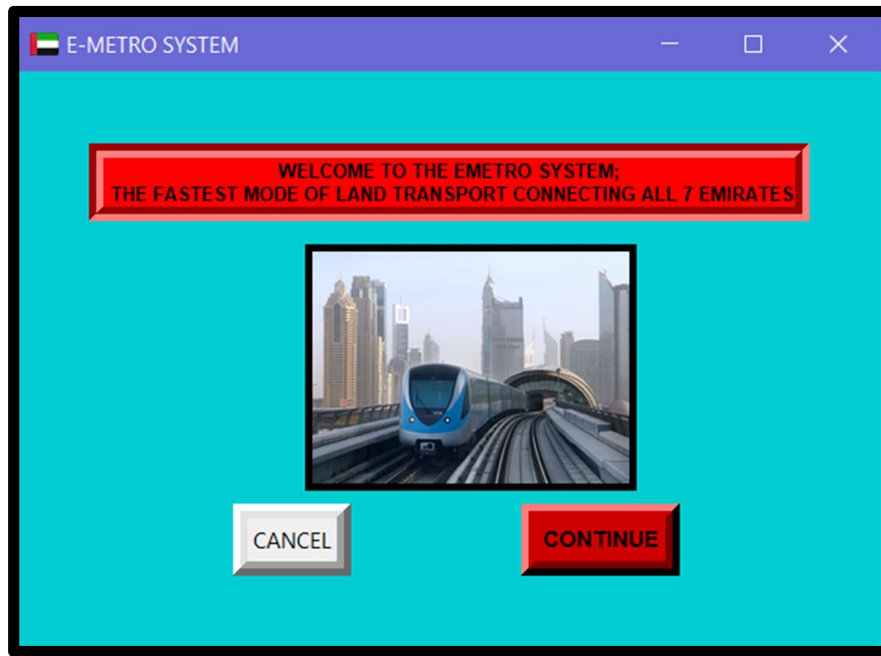
○ My project is based on the UAE metro ticket booking system. There are 4 main phases/pages to the software:

1. WELCOME PAGE
2. LOGIN PAGE :-
3. CUSTOMER INTERFACE
4. ADMINISTRATOR INTERFACE

## I. WELCOME PAGE:



First you are greeted with the intricate welcome graphic using turtle module.



We are then taken to the welcome screen, of the metro where it shows us a picture of the metro in action as well as a brief description of it. And the option to continue onto the login screen.

## **II. LOGIN PAGE:**



In the login screen there are 2 modes of logging in: Customer and Administrator.

For the Administrator one we will need to enter the specific username and password to continue onto the admin user face.

### III. CUSTOMER LOGIN:

The screenshot displays two windows from a ticket booking application. The 'TICKET BOOKING' window on the left has a teal background and contains five input fields: 'NAME:', 'DESTINATION:', 'NUMBER OF TICKETS:', 'TICKET TYPE: [ONE-WAY/TWO-WAY]', and 'DISCOUNT:'. Below these fields are two buttons: a red 'CLEAR' button and a pink 'PRINT' button. The 'TICKET RATES' window on the right has a light purple background and displays a table of ticket prices for various destinations. The table has two columns: 'DESTINATION' and 'PRICE'. The destinations listed are DUBAI (100), SHARJAH (150), AJMAN (200), RAS AL KHAIMAH (250), FUJAIRAH (300), and UMM AL QUWAIN (400). Below the table, there are two rows for discounts: 'SENIOR CITIZEN' (25 % OFF) and 'GOVT WORKER' (50% OFF).

DESTINATION	PRICE
DUBAI	100
SHARJAH	150
AJMAN	200
RAS AL KHAIMAH	250
FUJAIRAH	300
UMM AL QUWAIN	400
-----	
SENIOR CITIZEN	25 % OFF
GOVT WORKER	50% OFF

If we continue onto the customer login screen and the ticket rates for the different destinations.

There are 2 buttons and 5 entry fields each with a particular function assigned to it:

- i. **NAME:-** To enter customer name
- ii. **DESTINATION:-** To enter desired destination

- iii. **NO OF TICKETS:-** To enter quantity of tickets to be purchased
- iv. **TICKET TYPE:-** To enter whether it's a one-way or return ticket
- v. **DISCOUNT:-**
  - 1. NO DISCOUNT
  - 2. GOVT EMPLOYEE-50% discount
  - 3. SENIOR CITIZEN-25% discount
- 1) **CLEAR BUTTON:-** Clears all of the entered fields incase of an error
- 2) **SUBMIT BUTTON:-** Gets input and computes data to calculate final bill and display it to customer

#### **IV. ADMINISTRATOR LOGIN:**

A screenshot of a software window titled "ADMINISTRATOR LOGIN" with a small UAE flag icon on the left. The window has a pink background and a blue title bar. It contains two input fields: "USERNAME:" and "PASSWORD:". Below the fields are two buttons: "CLEAR" (white with black text) and "LOGIN" (red with white text).

ADMINISTRATOR LOGIN

USERNAME:

PASSWORD:

CLEAR LOGIN

You must enter the correct username and password to be able to access the Administrator functions.

**TICKET BOOKING**

NAME:

DESTINATION:

NUMBER OF TICKETS:

TICKET TYPE:

DISCOUNT:

SEARCH DISPLAY

UPDATE DELETE

CLEAR PRINT

**TICKET RATES**

DESTINATION	PRICE
DUBAI	100
SHARJAH	150
AJMAN	200
RAS AL KHAIMAH	250
FUJAIRAH	300
UMM AL QUWAIN	400
-----	
SENIOR CITIZEN	25 % OFF
GOVT WORKER	50% OFF

There are 6 buttons and 5 entry fields each with a particular function assigned to it:

- i. **NAME:-** To enter customer name
  - ii. **DESTINATION:-** To enter desired destination
  - iii. **NO OF TICKETS:-** To enter quantity of tickets to be purchased
  - iv. **TICKET TYPE:-** To enter whether it's a one-way or return ticket
  - v. **DISCOUNT:-**
    1. NO DISCOUNT
    2. GOVT EMPLOYEE-50% discount
    3. SENIOR CITIZEN-25% discount
- 1) **CLEAR BUTTON:-** Clears all of the entered fields in case of an error



2) **SUBMIT BUTTON:-** Gets input and computes data to calculate final bill and display it to customer

The administrator can also access the customer record.

3) **SEARCH BUTTON:-** Administrator can enter particular name and search for that customer record. If found will display all details of that customer.

4) **UPDATE BUTTON:-** Administrator can enter particular name and enter updated details then on clicking button the details are updated in record.

5) **DISPLAY BUTTON:-**

Administrator can display and view all customer records

6) **DELETE BUTTON:-** Administrator can enter particular name and on pressing button the particular record will be deleted

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# USE OF TECHNOLOGY

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## **WHAT IS MySQL?**

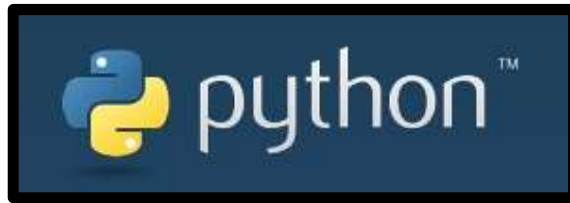
MySQL is a relational DBMS that can run virtually all platforms, including Linux, Unix and Windows. Popular for web-based applications and online publishing, MySQL is a part of open-source enterprise stack LAMP (Linux, Apache, MySQL, PHP).

MySQL is a freely available open source RDBMS that uses Structured Query Language (SQL). It is downloadable from site [www.mysql.org](http://www.mysql.org) MySQL is fast, reliable, scalable alternative to many of the commercial RDBMs available today. MySQL provides you with a rich set of features that support a secure environment for storing, maintaining, and accessing data.

MySQL was created and supported by MySQL AB; a company based in Sweden. This company is now a subsidiary of Sun Microsystems, which holds the copyright to most of the codebase. On April 20<sup>th</sup>, 2009, Oracle Corp., which develops and sells the proprietary Oracle database, announced a deal to acquire Sun Microsystems.

SQL provides many different types of commands used for different purposes. SQL commands can be divided into following categories:

- i. Data Definition Language (DDL)
- ii. Data Manipulation Language (DML)
- iii. Transaction Control Language (TCL) iv. Session Control Commands
- v. System Control Commands



## WHAT IS PYTHON?

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built-in data structures, combined with dynamic typing and dynamic binding; make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms and can be freely distributed.

Often, programmers fall in love with Python because of the increased productivity it provides. Debugging Python programs is easy:

a bug or bad input will never cause a segmentation fault. Instead, when the interpreter discovers an error, it raises an exception. A source level debugger allows inspection of local and global variables, evaluation of arbitrary expressions, setting breakpoints, stepping through the code a line at a time, and so on. The debugger is written in Python itself, testifying to Python's introspective power. On the other hand, often the quickest way to debug a program is to add a few print statements to the source: the fast edit-test-debug cycle makes this simple approach very effective

.

## **HARDWARE AND SOFTWARE REQUIREMENTS**

### **SYSTEM:**

OS- Windows 10 Professional 32-Bit (6.1, Build 7601)

Language: English

System Manufacture-Gigabyte Technology Co., Ltd

BIOS: -BIOS Date: 08/03/13 09:45:07

Ver: 04.06.05

Processor: - Intel (R) Core™ i3-3220CPU @3.30 GHz (4CPUs), ~3.3GHz

Memory: 2048 MB RAM

DirectX Version: Direct XII

### **DISPLAY DEVICE:**

Name:-Intel(R) HD Graphics

Manufacturer: - Gigabyte Technology Co., Ltd

Chip Type: - Intel(R) HD Graphics Family

DAC Type: -Internal

Approx. Total Memory: -775 MB

Current Display mode: - 1336 X 768 (32 Bit)(60Hz)

Monitor: - Generic PnP Monitor

### **DRIVER:**

Main Driver: - igdumdim 32.dll,igd loiumd 32.dll, igd lo

Version: -10.18.10.3345

Date: -10/28/13

WHQL logo's: - Yes

DDI Version: II

Driver Model: -WDDM 1.1

---

# SOURCE CODE

---

```

import tkinter as tk
from tkinter import*
from PIL import ImageTk,Image
from tkinter import messagebox
import turtle
import mysql.connector as mys
from tkinter import ttk

#TURTLE LOADING SCREEN
colors = [ "red","purple","cyan","lime","orange","yellow"]
win=turtle.Screen()
turtle.bgcolor("black")
pen=turtle.Turtle()
for x in range(100):
    pen.pencolor(colors[x % 6])
    pen.width(x/100 + 1)
    pen.forward(x)
    pen.left(59)
    pen.speed(5000)

turtle.color('red')
#turtle.done()
pen.hideturtle()
pen.penup()
pen.setposition(x=25,y=250)
arg=("WELCOME TO THE E-METRO SYSTEM!")
pen.write(arg,align='center',          font=('Comic          Sans
MS',25,'bold'))
turtle.hideturtle()
turtle.exitonclick()

#WELCOME SCREEN
def welcome():
    root=Tk()
    root.geometry("600x400")
    root.title("E-METRO SYSTEM")
    root['background'] = 'dark turquoise'
    root.iconbitmap("C:/Users/saura/Desktop/gui/uae.ico")

    def opeen(): #CUSTOMER OR ADMIN

```

```

cancel()
root=Tk()
root.geometry("300x250")
root.title("ABU DHABI TERMINAL")
root['background'] = 'Olive Drab1'
root.iconbitmap("C:/Users/saura/Desktop/gui/uae.ico")

btncust=Button(root,text="CUSTOMER",command=booking,borderwidth=10,font='Times 9')

btnadmin=Button(root,text="ADMINISTRATOR",command=login,borderwidth=10,bg="red2",activebackground='Royalblue1',font='Times 9 bold')

    btncust.place(x=70,y=50,width=150,height=50)
    btnadmin.place(x=50,y=150,width=200,height=50)

def cancel():
    root.destroy()

btncont=Button(root,text="CONTINUE",command=oopen,borderwidth=10,activebackground='blue',font='sans 9 bold',bg="red3")

btncanc=Button(root,text="CANCEL",command=cancel,borderwidth=10)

    lblwelc=Label(root,text="WELCOME TO THE EMETRO SYSTEM;\nTHE FASTEST MODE OF LAND TRANSPORT CONNECTING ALL 7 EMIRATES",bg="red",font='sans 8 bold',borderwidth=10,relief="groove")

img1=ImageTk.PhotoImage(Image.open("C:/Users/saura/Desktop/gui/metr.png"))

lblimag=Label(root,image=img1,borderwidth=5,relief="solid")

    lblimag.place(x=200,y=120)
    lblwelc.place(x=50,y=50)
    btncont.place(x=350,y=300,height=50)
    btncanc.place(x=150,y=300,height=50)
    root.mainloop()

```



```

#ADMIN LOGIN SCREEN
def login():
    def clear():
        euser.delete(0,END)
        epass.delete(0,END)
        disc.delete(0,END)
        etype.delete(0,END)
        menudest.delete(0,END)

    def submit():
        username=euser.get()
        pasw=epass.get()

        if username=="admin" or username=="ADMIN" and
pasw=="1998":
            messagebox.showinfo("Login ", "LOGIN SUCCESSFUL")
            root.destroy()
            booking2()
        else:
            r=messagebox.askyesno("LOGIN DENIED", "ENTERED
PASSWORD/ID IS INCORRECT.DO YOU WISH TO RETRY?")
            root=Tk()
            root.geometry("400x200")
            root.title("ADMINISTRATOR LOGIN")
            root['background'] = 'orchid2'
            root.iconbitmap("C:/Users/saura/Desktop/gui/uae.ico")
            lbluser=Label(root,text="USERNAME:",font="Helvetica 10")

            lblpass=Label(root,text="PASSWORD:",fg="red",font="Helvetica
10")
            euser=Entry(root,borderwidth=10,font="bold")
            epass=Entry(root,borderwidth=10,font="bold",show="*")
            btnclear=Button(root,text="CLEAR",command=clear,bd=4)

            btnlog=Button(root,text="LOGIN",command=submit,bd=4,activebac
kground='Royalblue2',bg="red")

            lbluser.grid(row=1,column=0,padx=10,pady=10)
            euser.grid(row=1,column=1,padx=10,pady=10)
            lblpass.grid(row=2,column=0,padx=10)
            epass.grid(row=2,column=1,padx=10,pady=0)

```

```

btnclear.place(x=100,y=130,width=80,height=40)
btnlog.place(x=200,y=130,width=80,height=40)
root.mainloop()

def rates():
    root = tk.Tk()
    root.geometry("400x400")
    root.title("TICKET RATES")
    root['background'] = 'thistle2'
    ttk.Label(root,text      ="TICKET      RATES",background="light
    slate blue",font = ("Times New Roman Bold", 20)).pack()
    frame = Frame(root)
    frame.pack()
    tree = ttk.Treeview(frame, columns = (1,2), height = 100,
    show = "headings")
    tree.pack(side = 'right')
    tree.heading(1, text = "DESTINATION")
    tree.heading(2, text = "PRICE")
    tree.column(1, width = 130)
    tree.column(2, width = 130)
    scroll      =      ttk.Scrollbar(frame,      orient="vertical",
    command=tree.yview)
    scroll.pack(side = 'right', fill = 'y')

    rs=[("DUBAI","100"),("SHARJAH","150"),("AJMAN","200"),("RAS
    AL      KHAIMAH","250"),("FUJAIRAH","300"),("UMM      AL
    QUWAIN","400"),("-----","-----"),("SENIOR
    CITIZEN","25 % OFF"),("GOVT WORKER","50% OFF")]
    for val in rs:
        tree.insert('', 'end', values = (val[0], val[1]))

#CUSTOMER BOOKING
def booking():
    rates()
    def clear1():
        ename.delete(0,END)
        eno.delete(0,END)
        menudest.delete(0,END)
        disc.delete(0,END)
        etype.delete(0,END)

    def submit1():#CUSTOMER BILL PRINT

```

```

global typ
global price
name=ename.get()
se=str(menudest.get())
typ=str(etype.get())
nos=int(eno.get())
disc=str(edisc.get())

if se=="DUBAI" or se=="Dubai":
    r=100
elif se=="Sharjah" or se=="SHARJAH":
    r=150
elif se=="Ajman" or se=="AJMAN":
    r=200
elif se=="Fujairah" or se=="FUJAIRAH":
    r=300
elif se=="Ras Al Khaimah" or se=="RAS AL KHAIMAH":
    r=250
elif se=="Umm Al Quwain" or se=="UMM AL QUWAIN":
    r=400

if typ=="ONE-WAY" or typ=="one-way" or typ=="ONEWAY":
    ttyp=1
elif typ=="TWO-WAY" or typ=="twoway" or typ=="TWOWAY":
    ttyp=2

price=r*nos*ttyp
disc="NO DISCOUNT"
if disc=="SENIOR CITIZEN" or disc=="SENIOR CITIZEN":
    price=(r*nos*ttyp)*0.75
    disc="SENIOR CITIZEN"
elif disc=="GOVERNMENT WORKER" or disc=="government
worker" or disc=="GOVT WORKER":
    price=(r*nos*ttyp)*0.50
    disc="GOV. EMPLOYEE"

#print(disc,typ,s,d)
price=str(price)
messagebox.showinfo("BILL","YOUR TOTAL BILL IS "+price
+"AED. PLEASE PAY AT NEAREST COUNTER")

```

```

try:
    myconn=mys.connect(host='localhost',user="root",\
passwd="adis",database="emetro")
    mycur=myconn.cursor()

    query="show tables";
    mycur.execute("insert into uaemetro values\
('{'','{'',{'','{'','{'',{'')}.format(name,se,nos,typ,disC,pric
E))

    myconn.commit()
except Exception as e:
    print(e)

root=Tk()
root.geometry("600x600")
root.title("TICKET BOOKING")
root['background'] = 'turquoise3'
root.iconbitmap("C:/Users/saura/Desktop/gui/uae.ico")
#s=tk.IntVar()
#d=tk.IntVar()
#s.set(1)
#d.set(1)

lbldest=Label(root,text="DESTINATION:",font="Helvetica
15")
menudest=Entry(root,borderwidth=8)
lblname=Label(root,text="NAME:",font="Helvetica 15")
ename=Entry(root,borderwidth=8)
lblno=Label(root,text="NUMBER OF
TICKETS:",font="Helvetica 15")
eno=Entry(root,borderwidth=8)
lbltype=Label(root,text="TICKET TYPE:",font="Helvetica
15")
lbltype1=Label(root,text="[ONE-WAY/TWO-
WAY]",font="Helvetica 10")

etype=Entry(root,borderwidth=8)
#rdtype1=Radiobutton(root,text="ONE-
WAY",variable=s,value=1)

```

```

        #rdtype2=Radiobutton(root, text="TWO-
WAY", variable=s, value=2)
        lbldisc=Label(root, text="DISCOUNT:", font="Helvetica 15")
        edisc=Entry(root, borderwidth=8)
        #rdtype3=Radiobutton(root, text="GOVERNMENT
WORKER", variable=d, value=3)
        #rdtype4=Radiobutton(root, text="SENIOR
CITIZEN", variable=d, value=2)
        #rdtype5=Radiobutton(root, text="NO
DISCOUNT", variable=d, value=1)

btnclear=Button(root, text="CLEAR", command=clear1, bd=4, bg="bro
wn2", font='sans 12 bold')

btnsub=Button(root, text="PRINT", command=submit1, bd=4, activeba
ckground='red', bg='#ffb3fe', font='Times 12 bold')

        lbldest.place(x=50, y=110)
        menudest.place(x=350, y=100, width=150, height=50)
        lblname.place(x=50, y=50)
        ename.place(x=350, y=50)
        lblno.place(x=50, y=180)
        eno.place(x=350, y=180, width=70)
        lbltype.place(x=50, y=250)
        lbltype1.place(x=50, y=280)
        etype.place(x=350, y=250)
        #rdtype1.place(x=350, y=250)
        #rdtype2.place(x=350, y=275)
        lbldisc.place(x=50, y=325)
        edisc.place(x=350, y=325, width=200)
        #rdtype3.place(x=350, y=325)
        #rdtype4.place(x=350, y=350)
        #rdtype5.place(x=350, y=375)
        btnclear.place(x=100, y=475, width=150, height=50)
        btnsub.place(x=350, y=475, width=150, height=50)
        root.mainloop()

#ADMIN BOOKING
def booking2():
    rates()
    def clear2():
        ename.delete(0, END)

```

```

        eno.delete(0,END)
        menudest.delete(0,END)
        edisc.delete(0,END)
        etype.delete(0,END)

def submit2():#ADMIN BILL PRINT
    global typ
    global price
    name=ename.get()
    se=str(menudest.get())
    typ=str(etype.get())
    nos=int(eno.get())
    disc=str(edisc.get())

    if se=="DUBAI" or se=="Dubai":
        r=100
    elif se=="Sharjah" or se=="SHARJAH":
        r=150
    elif se=="Ajman" or se=="AJMAN":
        r=200
    elif se=="Fujairah" or se=="FUJAIRAH":
        r=300
    elif se=="Ras Al Khaimah" or se=="RAS AL KHAIMAH":
        r=250
    elif se=="Umm Al Quwain" or se=="UMM AL QUWAIN":
        r=400

    if typ=="ONE-WAY" or typ=="one-way" or typ=="ONEWAY":
        ttyp=1
    elif typ=="TWO-WAY" or typ=="twoway" or typ=="TWOWAY":
        ttyp=2

    price=r*nos*ttyp
    disc="NO DISCOUNT"
    if disc=="SENIOR CITIZEN" or disc=="SENIOR CITIZEN":
        price=(r*nos*ttyp)*0.75
        disc="SENIOR CITIZEN"
    elif disc=="GOVERNMENT WORKER" or disc=="government
worker" or disc=="GOVT WORKER":
        price=(r*nos*ttyp)*0.50
        disc="GOV. EMPLOYEE"

```

```

        #print(disc,typ,s,d)
        price=str(price)
        messagebox.showinfo("BILL","YOUR TOTAL BILL IS "+price
+"AED. PLEASE PAY AT NEAREST COUNTER")

        try:
            myconn=mys.connect(host='localhost',user="root",\
passwd="adis",database="emetro")
            mycur=myconn.cursor()

            query="show tables";
            mycur.execute("insert into uaemetro values\
('{}','{}',{},{},'{}','{}',{})".format(name,se,nos,typ,disC,price))

            myconn.commit()
        except Exception as e:

def display(): #DISPLAY ALL CUSTOMERS
    try:
        myconn = mys.connect(host='localhost',
user="root",\
                                passwd="adis", database="emetro")

        mycur = myconn.cursor()
        query = "select * from uaemetro ORDER BY name"
        mycur.execute(query)
        rs = mycur.fetchall()
        root = tk.Tk()
        root.geometry("900x700")
        root.title("CUSTOMER REGISTER")
        root['background'] = 'black'
        ttk.Label(root,text="CUSTOMER REGISTER",background="aquamarine2",font = ("Times New Roman
Bold", 20)).pack()
        frame = Frame(root)
        frame.pack()
        tree = ttk.Treeview(frame, columns =
(1,2,3,4,5,6), height = 100, show = "headings")
        tree.pack(side = 'right')

```

```

        tree.heading(1, text = "NAME.")
        tree.heading(2, text = "DESTINATION")
        tree.heading(3, text = "TICKETS")
        tree.heading(4, text = "TICKET TYPE")
        tree.heading(5, text = "DISCOUNT")
        tree.heading(6, text = "PRICE")
        tree.column(1, width = 130)
        tree.column(2, width = 130)
        tree.column(3, width = 130)
        tree.column(4, width = 130)
        tree.column(5, width = 130)
        tree.column(5, width = 130)
        tree.column(6, width = 130)
        scroll = ttk.Scrollbar(frame, orient="vertical",
command=tree.yview)
        scroll.pack(side = 'right', fill = 'y')

        for val in rs:
            tree.insert('', 'end', values = (val[0],
val[1], val[2],val[3],val[4],val[5]))
        except Exception as e:
            print(e)

def update(): #UPDATE A CUSTOMER
    global typ
    global price
    name=ename.get()
    se=str(menudest.get())
    typ=str(etype.get())
    nos=int(eno.get())
    disc=str(edisc.get())

    if se=="DUBAI" or se=="Dubai":
        r=100
    elif se=="Sharjah" or se=="SHARJAH":
        r=150
    elif se=="Ajman" or se=="AJMAN":
        r=200
    elif se=="Fujairah" or se=="FUJAIRAH":
        r=300
    elif se=="Ras Al Khaimah" or se=="RAS AL KHAIMAH":
        r=250

```



```

elif se=="Umm Al Quwain" or se=="UMM AL QUWAIN":
    r=400

if typ=="ONE-WAY" or typ=="one-way" or typ=="ONEWAY":
    ttyp=1
elif typ=="TWO-WAY" or typ=="twoway" or typ=="TWOWAY":
    ttyp=2

pricE=r*nos*ttyp
disC="NO DISCOUNT"
if disC=="SENIOR CITIZEN" or disC=="SENIOR CITIZEN":
    pricE=(r*nos*ttyp)*0.75
    disC="SENIOR CITIZEN"
elif disC=="GOVERNMENT EMPLOYEE" or disC=="Government
employee":
    pricE=(r*nos*ttyp)*0.50
    disC="GOV. EMPLOYEE"

#print(disc,typ,price)
price=str(price)
messagebox.showinfo("BILL","YOUR NEW TOTAL BILL IS
"+price +"AED. PLEASE PAY AT NEAREST COUNTER")
messagebox.showinfo("INFORMATION","CUSTOMER RECORD
SUCCESFULLY UPDATED")

try:
    myconn=mys.connect(host='localhost',user="root",\
                        passwd="adis",database="emetro")
    mycur=myconn.cursor()
    query="update                                uaemetro                                set
tno={},disc='{}',price={},dest='{}',type='{}'\
        where
name='{}' ".format(nos,disC,price,se,typ,name);
    mycur.execute(query)
    myconn.commit()

except Exception as e:
    print(e)
display()

```

```

def delete(): #TO DELETE A CUSTOMER RECORD
    try:
        myconn=mys.connect(host='localhost',user="root",\
passwd="adis",database="emetro")
        mycur=myconn.cursor()
        cname=ename.get()
        query="delete          from          uaemetro          where
name='{}' ".format(cname);
        mycur.execute(query)
        myconn.commit()
        display()

    except Exception as e:
        print(e)
        messagebox.showinfo("INFORMATION", "CUSTOMER          RECORD
SUCCESSFULLLY DELETED")

def search(): #SEARCH BY CUST NAME
    name = ename.get()
    try:
        myconn=mys.connect(host='localhost',user="root",\
                             passwd="adis",database="emetro")
        if myconn.is_connected():
            mycur=myconn.cursor()
            name = ename.get()
            query="select      *      from      uaemetro      where
name='{}' ".format(name);
            mycur.execute(query)
            r=mycur.fetchall()
            for row in r:
                if row!=None:

messagebox.showinfo("INFORMATION", "CUSTOMER          RECORD
SUCCESSFULLLY FOUND")

                menudest.insert(END,row[1])
                edisc.insert(END,row[4])
                etype.insert(END,row[3])
                eno.insert(END,row[2])

```

```

        print("NAME
", "DEST", "QUANTITY", "TYPE", "DISCOUNT", "PRICE", sep="\t")
        print(row[0], row[1], row[2], "
", row[3], row[4], row[5], sep="\t")
        print("SEARCH SUCCESSFUL")
    else:

messagebox.showinfo("INFORMATION", "CUSTOMER RECORD NOT FOUND")
        print("NO RECORD FOUND")

    except Exception as e:
        print(e)

root=Tk()
root.geometry("600x700")
root.title("TICKET BOOKING")
root['background'] = 'turquoise3'
root.iconbitmap("C:/Users/saura/Desktop/gui/uae.ico")
#s=tk.IntVar()
#d=tk.IntVar()
#s.set(1)
#d.set(1)

lbldest=Label(root, text="DESTINATION:", font="Helvetica
15")
menudest=Entry(root, borderwidth=8)
lblname=Label(root, text="NAME:", font="Helvetica 15")
ename=Entry(root, borderwidth=8)
lblno=Label(root, text="NUMBER OF
TICKETS:", font="Helvetica 15")
eno=Entry(root, borderwidth=8)
lbltype=Label(root, text="TICKET TYPE:", font="Helvetica
15")
lbltype1=Label(root, text="[ONE-WAY/TWO-
WAY]", font="Helvetica 10")

etype=Entry(root, borderwidth=8)
#rdtype1=Radiobutton(root, text="ONE-
WAY", variable=s, value=1)
#rdtype2=Radiobutton(root, text="TWO-
WAY", variable=s, value=2)

```

```

        lbldisc=Label(root,text="DISCOUNT:",font="Helvetica 15")
        edisc=Entry(root,borderwidth=8)
        #rdtype3=Radiobutton(root,text="GOVERNMENT
WORKER",variable=d,value=3)
        #rdtype4=Radiobutton(root,text="SENIOR
CITIZEN",variable=d,value=2)
        #rdtype5=Radiobutton(root,text="NO
DISCOUNT",variable=d,value=1)

btnclear=Button(root,text="CLEAR",command=clear2,bd=4,bg="bro
wn1",font='sans 12 bold')

btnsearch=Button(root,text="SEARCH",command=search,bd=4,bg="R
osybrown1",font='sans 12 bold')

btndisplay=Button(root,text="DISPLAY",command=display,bd=4,bg
="Rosybrown1",font='sans 12 bold')

btncsub=Button(root,text="PRINT",command=submit2,bd=4,activeba
ckground='red',bg='#ffb3fe',font='Times 12 bold')

btncupdate=Button(root,text="UPDATE",command=update,bd=4,bg="R
osybrown1",font='sans 12 bold')

btncdelete=Button(root,text="DELETE",command=delete,bd=4,bg="R
osybrown1",font='sans 12 bold')

```

```

        lbldest.place(x=50,y=110)
        menudest.place(x=350,y=100,width=150,height=50)
        lblname.place(x=50,y=50)
        ename.place(x=350,y=50)
        lblno.place(x=50,y=180)
        eno.place(x=350,y=180,width=70)
        lbltype.place(x=50,y=250)
        lbltype1.place(x=50,y=280)
        etype.place(x=350,y=250)
        #rdtype1.place(x=350,y=250)
        #rdtype2.place(x=350,y=275)
        lbldisc.place(x=50,y=325)
        edisc.place(x=350,y=325,width=200)

```

```
#rdtype3.place(x=350,y=325)
#rdtype4.place(x=350,y=350)
#rdtype5.place(x=350,y=375)

btnclear.place(x=100,y=610,width=150,height=50)
btnsub.place(x=350,y=610,width=150,height=50)
btnsearch.place(x=100,y=450,width=150,height=50)
btndisplay.place(x=350,y=450,width=150,height=50)
btnupdate.place(x=100,y=530,width=150,height=50)
btndelete.place(x=350,y=530,width=150,height=50)

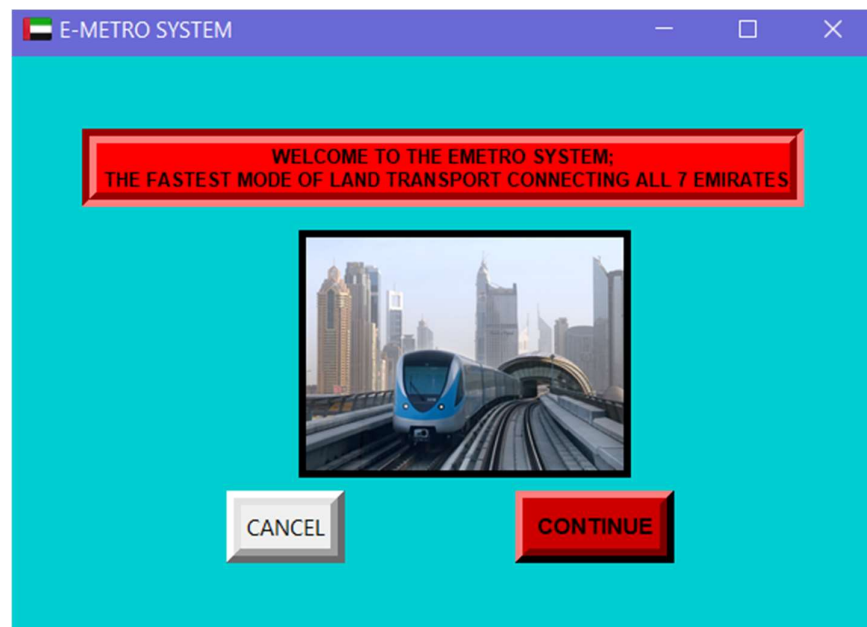
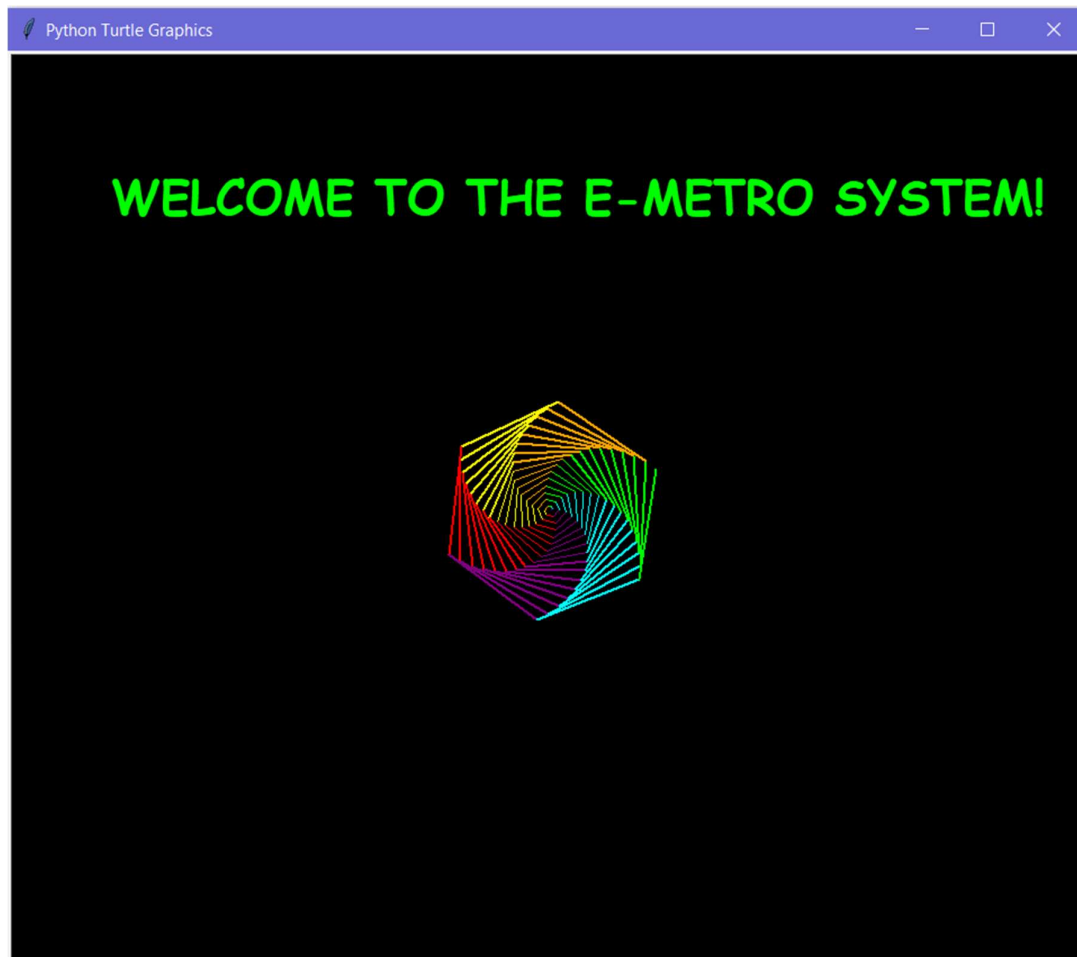
root.mainloop()
```

```
welcome()
```

---

# SAMPLE OUTPUT

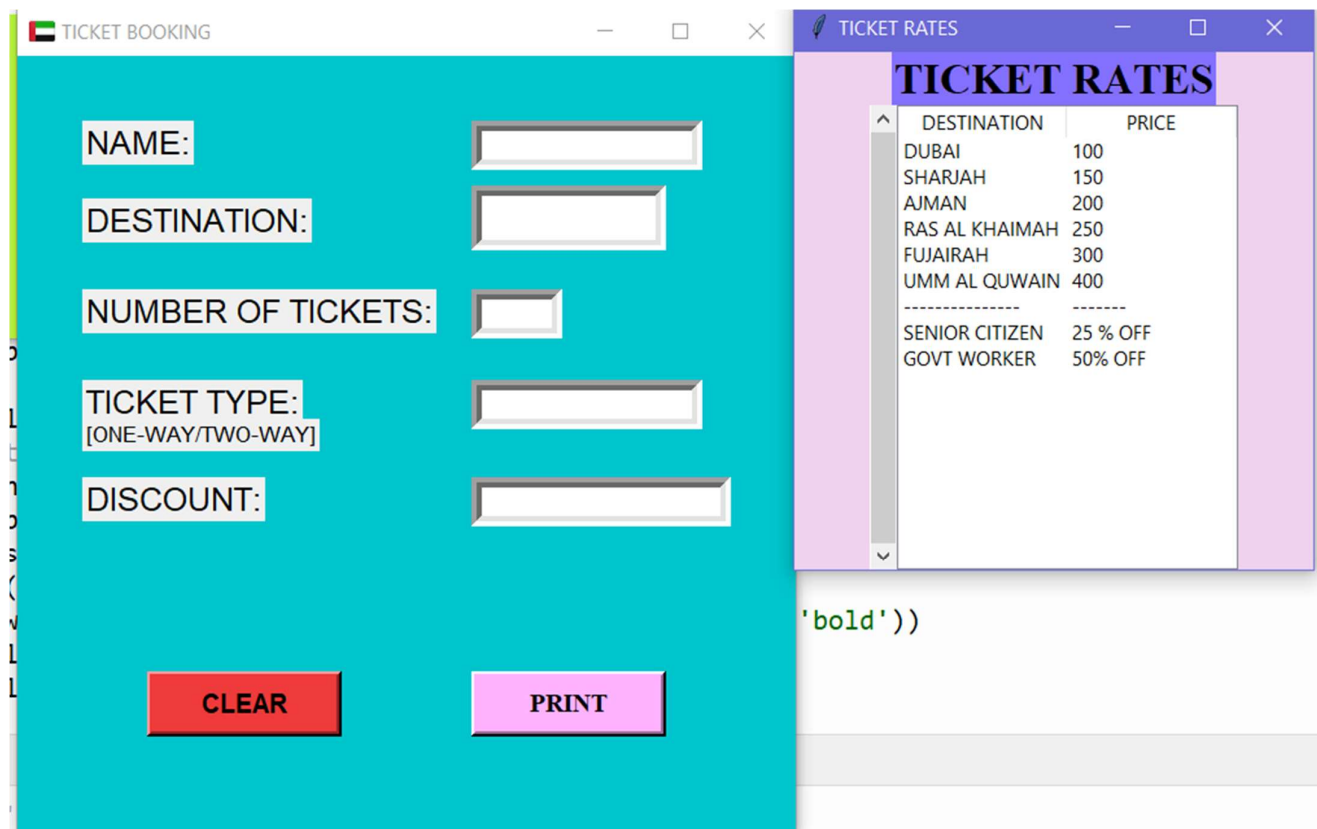
---



## CUSTOMER:



A login window titled 'ABU DHABI...' with a green background. It contains two buttons: a light blue 'CUSTOMER' button and a red 'ADMINISTRATOR' button.



Two overlapping windows from a ticket booking application. The 'TICKET BOOKING' window (cyan background) has input fields for NAME, DESTINATION, NUMBER OF TICKETS, TICKET TYPE (with a dropdown menu showing 'ONE-WAY/TWO-WAY'), and DISCOUNT. It also has 'CLEAR' and 'PRINT' buttons. The 'TICKET RATES' window (purple header) displays a table of destinations and prices, along with discounts for senior citizens and government workers.

DESTINATION	PRICE
DUBAI	100
SHARJAH	150
AJMAN	200
RAS AL KHAIMAH	250
FUJAIRAH	300
UMM AL QUWAIN	400

SENIOR CITIZEN	25 % OFF
GOVT WORKER	50% OFF



TICKET BOOKING

NAME:

Saurabh

DESTINATION:

SHARJAH

NUMBER OF TICKETS:

1

TICKET TYPE:  
[ONE-WAY/TWO-WAY]

ONE-WAY

DISCOUNT:

GOVT WORKER

CLEAR

PRINT

TICKET RATES

DESTINATION	PRICE
DUBAI	100
SHARJAH	150
AJMAN	200
RAS AL KHAIMAH	250
FUJAIRAH	300
UMM AL QUWAIN	400
-----	
SENIOR CITIZEN	25 % OFF
GOVT WORKER	50% OFF

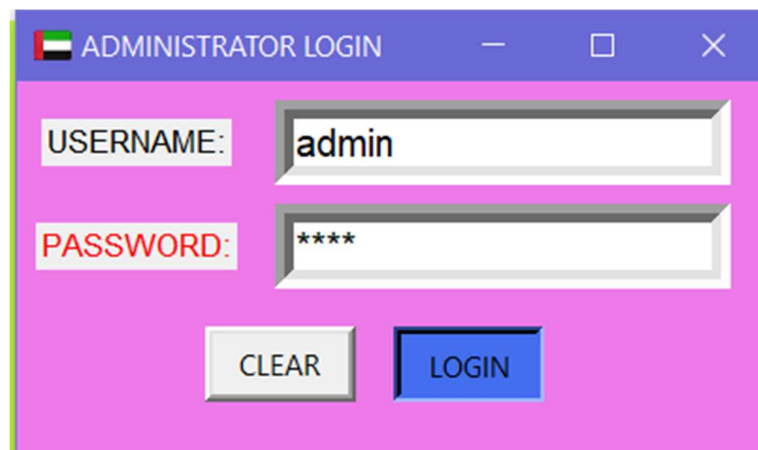
BILL

i

YOUR TOTAL BILL IS 75.0AED. PLEASE PAY AT NEAREST COUNTER

OK

## ADMINISTRATOR:



TICKET BOOKING

NAME:

DESTINATION:

NUMBER OF TICKETS:

TICKET TYPE:   
[ONE-WAY/TWO-WAY]

DISCOUNT:

SEARCH DISPLAY

UPDATE DELETE

CLEAR PRINT

## DISPLAY:

CUSTOMER REGISTER

NAME.	DESTINATION	TICKETS	TICKET TYPE	DISCOUNT	PRICE
Sachu	DUBAI	1	ONE-WAY	NO DISCOUNT	100
satish	DUBAI	4	TWO-WAY	NO DISCOUNT	800
Saurabh	SHARJAH	1	ONE-WAY	GOV. EMPLOYEE	75
Saurabh1	DUBAI	1	TWOWAY	NO DISCOUNT	200

## SEARCH:

 INFORMATION ×



CUSTOMER RECORD SUCCESFULLY FOUND

OK

 TICKET BOOKING — □ ×

NAME:	<input type="text" value="Saurabh"/>
DESTINATION:	<input type="text" value="SHARJAH"/>
NUMBER OF TICKETS:	<input type="text" value="1"/>
TICKET TYPE: [ONE-WAY/TWO-WAY]	<input type="text" value="ONE-WAY"/>
DISCOUNT:	<input type="text" value="GOV. EMPLOYEE"/>

SEARCH	DISPLAY
UPDATE	DELETE
CLEAR	PRINT

NAME	DEST	QUANTITY	TYPE	DISCOUNT	PRICE
Saurabh	SHARJAH	1	ONE-WAY	GOV. EMPLOYEE	75
SEARCH SUCSESFUL					

## UPDATE:

TICKET BOOKING

NAME:

Saurabh

DESTINATION:

DUBAI

NUMBER OF TICKETS:

2

TICKET TYPE:

ONE-WAY

[ONE-WAY/TWO-WAY]

DISCOUNT:

NONE

SEARCH


DISPLAY


UPDATE

DELETE

CLEAR

PRINT

 BILL ×

 YOUR NEW TOTAL BILL IS 200AED. PLEASE PAY AT NEAREST COUNTER

OK

## DELETE:

TICKET BOOKING — □ ×

NAME:

Saurabh

DESTINATION:

DUBAI

NUMBER OF TICKETS:

2

TICKET TYPE:  
[ONE-WAY/TWO-WAY]

ONE-WAY

DISCOUNT:

NONE

SEARCH

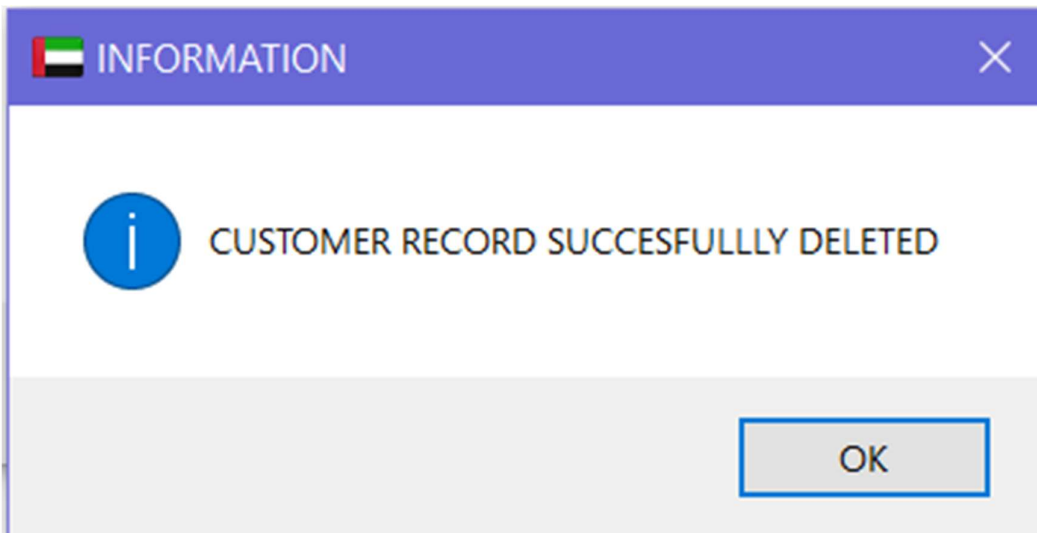
DISPLAY

UPDATE

DELETE

CLEAR

PRINT



CUSTOMER REGISTER						
NAME.	DESTINATION	TICKETS	TICKET TYPE	DISCOUNT	PRICE	
Sachu	DUBAI	1	ONE-WAY	NO DISCOUNT	100	
satish	DUBAI	4	TWO-WAY	NO DISCOUNT	800	
Saurabh1	DUBAI	1	TWOWAY	NO DISCOUNT	200	

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# BIBLIOGRAPHY

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**To develop this project many references were used:**

- 1.COMPUTER SCIENCE TEXTBOOK  
CLASS 12: SUMITA ARORA
- 2.<https://www.google.com>
- 3.<https://www.python.org.in>
- 4.<https://www.mysql.org>
- 5.<https://www.tutorialaicsip.com>
- 6.<https://www.youtube.com/c/Freecodecamp>

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# REMARKS

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