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import mysql.connector
from tabulate import tabulate
from tkinter import *
from PIL import ImageTk
from tkinter import messagebox
import pymysql

mycon=mysql.connector.connect(
    host="localhost",
    user="root",
    passwd="shiset16sam@",
    database="product1")
mycursor=mycon.cursor()

class App:

    def __init__(self,root):
        self.root=root
        self.root.title("Login and Register")
        self.root.geometry("1350x700+0+0")
        self.root.resizable(False,False)
        self.loginform()

    def loginform(self):
        Frame_login = Frame(self.root, bg="white")
        Frame_login.place(x=0, y=0, height=700, width=1366)
        self.img = ImageTk.PhotoImage(
            file=r"C:\Users\pc\Desktop\CS PROJECT\background.jpeg")
        img = Label(Frame_login, image=self.img).place(x=0, y=0, width=1366, height=700)
        frame_input = Frame(self.root, bg='white')
        frame_input.place(x=500, y=130, height=450, width=350)

        label1 = Label(frame_input, text="Login", font=('impact', 32, 'bold'), fg="black",
            bg='white')
        label1.place(x=120, y=10)

        # EMAIL FIELD
        label2 = Label(frame_input, text="Email ID", font=("Goudy old style", 20, "bold"),
            fg='orangered', bg='white')
        label2.place(x=30, y=95)
        self.email_txt = Entry(frame_input, font=("times new roman", 15, "bold"), bg='lightgray')
        self.email_txt.place(x=30, y=145, width=270, height=35)

        # PASSWORD FIELD
        label3 = Label(frame_input, text="Password", font=("Goudy old style", 20, "bold"),
            fg='orangered', bg='white')
        label3.place(x=30, y=195)
        self.password = Entry(frame_input, font=("times new roman", 15, "bold"), bg='lightgray')
        self.password.place(x=30, y=245, width=270, height=35)

        # ADMIN LOGIN
        btn9 = Button(frame_input, text="Admin Login", command=self.admin_loginform,
            cursor="hand2",
                font=("calibri", 12),
                fg="black", bg="white", bd=0, width=15, height=1)
        btn9.place(x=120, y=370)

        # LOGIN BUTTON
        btn2 = Button(frame_input, text="Login", command=self.login, cursor="hand2", font=("times
            new roman", 15),
                fg="white", bg="orangered", bd=0, width=15, height=1)
        btn2.place(x=93, y=320)

        # REGISTER BUTTON
        btn3 = Button(frame_input, command=self.Register, text="Not Registered?", cursor="hand2",

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        cur = con.cursor()
        cur.execute('select * from adminregister where emailid=%s and password=%s',
                    (self.email_txt.get(), self.password.get()))
        row = cur.fetchone()
        if row == None:
            messagebox.showerror('Error', 'Invalid Username And Password',
parent=self.root)
            self.loginclear()
            self.email_txt.focus()
        else:
            self.root.destroy()
            self.admin()
    except Exception as es:
        messagebox.showerror('Error', f'Error Due to : {str(es)}', parent=self.root)

def Register(self):
    Frame_login1 = Frame(self.root, bg="white")
    Frame_login1.place(x=0, y=0, height=700, width=1366)
    self.img = ImageTk.PhotoImage(
        file=r"C:\Users\pc\Desktop\CS PROJECT\background.jpeg")
    img = Label(Frame_login1, image=self.img).place(x=0, y=0, width=1366, height=700)
    frame_input2 = Frame(self.root, bg='white')
    frame_input2.place(x=320, y=130, height=450, width=630)

    label1 = Label(frame_input2, text="Register Here", font=('impact', 32, 'bold'),
fg="black", bg='white')
    label1.place(x=45, y=20)

    # NAME FIELD
    label2 = Label(frame_input2, text="Name", font=("Goudy old style", 20, "bold"),
fg='orangered', bg='white')
    label2.place(x=30, y=95)
    self.entry = Entry(frame_input2, font=("times new roman", 15, "bold"), bg='lightgray')
    self.entry.place(x=30, y=145, width=270, height=35)

    # PASSWORD FIELD
    label3 = Label(frame_input2, text="Password", font=("Goudy old style", 20, "bold"),
fg='orangered', bg='white')
    label3.place(x=30, y=195)
    self.entry2 = Entry(frame_input2, font=("times new roman", 15, "bold"), bg='lightgray')
    self.entry2.place(x=30, y=245, width=270, height=35)

    # EMAIL FIELD
    label4 = Label(frame_input2, text="Email-id", font=("Goudy old style", 20, "bold"),
fg='orangered', bg='white')
    label4.place(x=330, y=95)
    self.entry3 = Entry(frame_input2, font=("times new roman", 15, "bold"), bg='lightgray')
    self.entry3.place(x=330, y=145, width=270, height=35)

    # CONFIRM PASSWORD FIELD
    label5 = Label(frame_input2, text="Confirm Password", font=("Goudy old style", 20,
"bold"), fg='orangered',
                    bg='white')
    label5.place(x=330, y=195)
    self.entry4 = Entry(frame_input2, font=("times new roman", 15, "bold"), bg='lightgray')
    self.entry4.place(x=330, y=245, width=270, height=35)

    # REGISTER BUTTON
    btn2 = Button(frame_input2, command=self.register, text="Register", cursor="hand2",
font=("times new roman", 15),
                    fg="white", bg="orangered", bd=0, width=15, height=1)
    btn2.place(x=230, y=340)

    # LOGIN BUTTON
    btn3 = Button(frame_input2, command=self.loginform, text="Already Registered?",
cursor="hand2",

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        font=("calibri", 12), bg='white', fg="black", bd=0)
    btn3.place(x=250, y=380)

    def register(self):
        if self.entry.get() == "" or self.entry2.get() == "" or self.entry3.get() == "" or
self.entry4.get() == "":
            messagebox.showerror("Error", "All Fields Are Required", parent=self.root)

        elif self.entry2.get() != self.entry4.get():
            messagebox.showerror("Error", "Password and Confirm Password Should Be Same",
parent=self.root)

        else:
            try:
                con = pymysql.connect(host="localhost", user="root", password="shiset16sam@",
database="product1")

                cur = con.cursor()
                cur.execute("select * from register where emailid=%s", self.entry3.get())
                row = cur.fetchone()
                if row != None:
                    messagebox.showerror("Error", "User already Exist,Please try with another
Email", parent=self.root)
                    self.regclear()
                    self.entry.focus()
                else:
                    cur.execute("insert into register values(%s,%s,%s,%s)",
(self.entry.get(), self.entry3.get(), self.entry2.get(),
self.entry4.get()))
                    con.commit()
                    con.close()
                    messagebox.showinfo("Success", "Register Succesfull", parent=self.root)
                    self.regclear()
            except Exception as es:
                messagebox.showerror("Error", f"Error due to:{str(es)}", parent=self.root)

    def admin(self):
        def mobile():
            mycursor.execute("SELECT * FROM MOBILE")
            myresult = mycursor.fetchall()

            print(tabulate(myresult,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB", "DISPLAY_SIZE",
"CAMERA", "PRICE"],
tablefmt='psql'))

        def tablet():
            mycursor.execute("select * from tablet")
            myresult = mycursor.fetchall()

            print(tabulate(myresult, headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION", "OS",
"PROCESSOR"], tablefmt='psql'))

        def laptop():
            mycursor.execute("select * from laptop")
            myresult = mycursor.fetchall()

            print(tabulate(myresult,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE",
"PROCESSOR", "GRAPHICS",
"PRICE", "RATINGS"], tablefmt='psql'))

        def camera():
            mycursor.execute("select * from camera")
            myresult = mycursor.fetchall()

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        print(tabulate(myresult, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS", "EFFECTOVE PIXELS",
                                "MODEL_NUMBER", "DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

def television():
    mycursor.execute("select * from television")
    myresult = mycursor.fetchall()

    print(tabulate(myresult,
                    headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE",
"WEIGHT_kg", "OS"],
                    tablefmt='psql'))

# -----ADMIN FUNCTIONS-----

# -----ADDING NEW CATEGORY-----

def add_cat():
    cat = input("Enter the name of category you want to add: ").lower()
    cat_1 = cat.upper()
    ex = "INSERT INTO new_cat (new) VALUES ('{}').format(cat_1)
    ex_1 = "INSERT INTO cat (PRODUCTS) VALUES ('{}').format(cat_1)
    mycursor.execute(ex)
    mycursor.execute(ex_1)
    mycon.commit()
    try:
        query = """CREATE TABLE `{tab}`(`ID` VARCHAR(200) NOT NULL, PRIMARY KEY(`ID`),
UNIQUE INDEX `ID_UNIQUE`(`ID` ASC) VISIBLE)""".format(
            tab=cat)
        mycursor.execute(query)
        mycon.commit()
        N = int(input("Enter the number of field name you want to add: "))
        L = []
        for i in range(N):
            spec = (input("Enter the name of field name: ")).upper()
            L.append(spec)
            x = """ALTER TABLE {tab} ADD {leng} TEXT(100)""".format(tab=cat, leng=spec)
            mycursor.execute(x)
        mycon.commit()
        a = input("Do you want to add records?(Y/N) ")
        if a.lower() == 'y':
            try:
                F = int(input("How many records you want to add?: "))
                i = 0
                for i in range(F):
                    z = input("Enter ID to insert records: ")
                    v = "INSERT INTO {tab} (ID) VALUES ('{}').format(z, tab=cat)
                    mycursor.execute(v)
                    mycon.commit()

                    j = 0
                    for j in range(len(L)):
                        print("Enter value of", L[j], ":")
                        q = input().upper()
                        query = "UPDATE {tab} set {sea}='%s' WHERE ID=%s".format(tab=cat,
sea=L[j]) % (q, z)

                        mycursor.execute(query)
                        mycon.commit()

                print("Category Successfully Created with records")

            except:
                print("OOPS !! Invalid Input...")

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        else:
            print("Category Successfully created")
    except:
        print("ERROR")
        '''q1 = "drop table {tab}".format(tab=cat)
        mycursor.execute(q1)
        mycon.commit()'''
        add_cat()

# -----DELETING CATEGORY-----

def del_cat():
    try:
        q = "select * from cat"
        mycursor.execute(q)
        data = mycursor.fetchall()

        print(tabulate(data, headers=["PRODUCTS"], tablefmt='psql'))
        cat = input("Enter the name of category you want to delete: ")
        query = "DROP TABLE {tab} ".format(tab=cat)
        mycursor.execute(query)
        mycon.commit()
        print("Category successfully deleted")
        return
    except:
        print("Category doesn't exists.")
        del_cat()

#-----DISPLAYING NEW CATEGORIES-----
def disp_cat():
    q = "select * from new_cat"
    mycursor.execute(q)
    data = mycursor.fetchall()

    print(tabulate(data, headers=["NEW PRODUCTS"], tablefmt='psql'))
    x = input("Enter the name of category you want to see? ").lower()
    query = "SELECT * FROM {tab}".format(tab=x)
    mycursor.execute(query)
    myresult = mycursor.fetchall()

    print(tabulate(myresult, tablefmt='psql'))

# -----FORMATTING-----
def mob_result_disp(data1):
    ID, BRAND, MODEL, RAM_GB, ROM_GB, DISPLAY_SIZE, CAMERA, PRICE = data1
    print("{:<5} {:<10} {:<25} {:<8} {:<8} {:<15} {:<48} {:<10}".format(ID, BRAND, MODEL,
RAM_GB, ROM_GB,
                                                                    DISPLAY_SIZE,
                                                                    CAMERA, PRICE))

def tab_result_disp(data1):
    ID, BRAND, MODEL, PRICE, SCREEN_SIZE, ROM, RESOLUTION, OS, PROCESSOR = data1
    print(
        "{:<5} {:<12} {:<55} {:<10} {:<13} {:<4} {:<18} {:<15} {:<18}".format(ID, BRAND,
MODEL, PRICE,
                                                                    SCREEN_SIZE,
ROM,
                                                                    RESOLUTION,
OS, PROCESSOR))

def lap_result_disp(data1):
    ID, BRAND, MODEL, RAM_GB, DISK_GB, DISPLAY_SIZE, PROCESSOR, GRAPHICS, PRICE, RATINGS =
data1
    print(
        "{:<5} {:<10} {:<38} {:<7} {:<25} {:<15} {:<25} {:<35} {:<10} {:<10}".format(ID,

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BRAND, MODEL, RAM_GB,

DISK_GB,

DISPLAY_SIZE, PROCESSOR,

GRAPHICS,

PRICE, RATINGS))

    def cam_result_disp(data1):
        ID, BRAND, PRICE, MODEL, TYPE, DIMENSIONS, EFFECTIVE_PIXELS, MODEL_NUMBER,
DISPLAY_RESOLUTION, DIGITAL_ZOOM = data1
        print("{:<5} {:<12} {:<10} {:<20} {:<15} {:<25} {:<20} {:<15} {:<25}
{:<15}".format(ID, BRAND, PRICE, MODEL,

TYPE,

DIMENSIONS,

EFFECTIVE_PIXELS,

MODEL_NUMBER,

DISPLAY_RESOLUTION,

DIGITAL_ZOOM))

    def tel_result_disp(data1):
        ID, BRAND, MODEL, RESOLUTION, DISPLAY_SIZE, PRICE, WEIGHT_kg, OS = data1
        print("{:<5} {:<20} {:<60} {:<12} {:<15} {:<10} {:<15} {:<12}".format(ID, BRAND,
MODEL, RESOLUTION,

                                                                    DISPLAY_SIZE,
                                                                    PRICE,
                                                                    WEIGHT_kg, OS))

    # -----MOBILE FILTERS-----
    def filter_mob():
        print("\nTo add filter for BRAND, Select 1")
        print("To add filter for ROM, Select 2")
        print("To add filter for RAM, Select 3")
        print("To add filter for PRICE, Select 4")
        L = []
        N = int(input("\nHow Many filters do you want to add (1,2,3,4): "))
        for i in range(N):
            x = int(input("Enter Filter to Add : "))
            L.append(x)

        for i in L:

            if i == 1:
                brand = input("\nEnter BRAND Name : ")
                query = "select * from mobile where BRAND='%s'" % (brand.lower())
                mycursor.execute(query)
                data = mycursor.fetchall()

                print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",

                                                                    "PRICE"], tablefmt='psql'))

            elif i == 2:
                rom = input("\nEnter ROM Size : ")
                query = "select * from mobile where ROM_GB='%s'" % (rom.lower())
                mycursor.execute(query)
                data = mycursor.fetchall()

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        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                                "PRICE"], tablefmt='psql'))
    elif i == 3:
        ram = input("\nEnter RAM Size : ")
        query = "select * from mobile where RAM_GB='%s'" % (ram.lower())
        mycursor.execute(query)
        data = mycursor.fetchall()

        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                                "PRICE"], tablefmt='psql'))
    elif i == 4:
        min_price = int(input("\nEnter Minimum PRICE : "))
        max_price = int(input("Enter Maximum PRICE : "))
        query = "select * from mobile where PRICE between '%s' and '%s'" % (min_price,
max_price)
        mycursor.execute(query)
        data = mycursor.fetchall()
        if len(data) == 0:
            print("No match found")
        else:
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                                "PRICE"],
                            tablefmt='psql'))

# -----TABLET FILTERS-----

def filter_tab():
    print("\nTo add filter for BRAND select 1")
    print("To add filter for SCREEN Size select 2")
    print("To add filter for STORAGE Size select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("\nHow many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:
        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from tablet where BRAND='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM",
"RESOLUTION", "OS",
                                "PROCESSOR"], tablefmt='psql'))

        elif i == 2:
            scr_size = input("\nEnter Screen Size : ")
            query = "select * from tablet where SCREEN_SIZE='%s'" % (scr_size)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM",
"RESOLUTION", "OS",
                                "PROCESSOR"], tablefmt='psql'))

        elif i == 3:
            storage = input("\nEnter Storage Size : ")

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        query = "select * from tablet where ROM='%s'" % (storage)
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM",
"RESOLUTION", "OS",
                                "PROCESSOR"], tablefmt='psql'))

    elif i == 4:
        min_price = int(input("\nEnter minimum price limit : "))
        max_price = int(input("Enter maximum price limit : "))
        query = "select * from tablet where PRICE between '%s' and '%s'" % (min_price,
max_price)

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM",
"RESOLUTION", "OS",
                                "PROCESSOR"], tablefmt='psql'))

# -----LAPTOP FILTERS-----

def filter_lap():
    print("\nTo add filter for BRAND select 1")
    print("To add filter for SCREEN Size select 2")
    print("To add filter for STORGAE Size select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("\nHow many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from laptop where brand='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                                    "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif i == 2:
            scr_size = input("\nEnter Screen Size : ")
            query = "select * from laptop where DISPLAY_SIZE='%s'" % (scr_size)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                                    "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif i == 3:
            storage = input("\nEnter Storage Size : ")
            query = "select * from laptop where DISC_GB='%s'" % (storage)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                                    "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif i == 4:

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min_price = int(input("\nEnter minimum price limit : "))
max_price = int(input("Enter maximum price limit : "))
query = "select * from laptop where price between '%s' and '%s'" % (min_price,
max_price)

mycursor.execute(query)
data = mycursor.fetchall()
print(tabulate(data,
                headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

# -----CAMERA FILTERS-----
def filter_cam():
    print("\nTo add filter for BRAND select 1")
    print("To add filter for PIXEL select 2")
    print("To add filter for ZOOM select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("\nHow many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from camera where brand='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS",
"EFFECTOVE PIXELS",
                            "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"],
tablefmt='psql'))

            elif i == 2:
                pixel = input("\nEnter Pixel : ")
                query = "select * from camera where effective_pixels='%s'" % (pixel)
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS",
"EFFECTOVE PIXELS",
                                "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"],
tablefmt='psql'))

            elif i == 3:
                zoom = input("\nEnter Zoom : ")
                query = "select * from camera where DIGITAL_ZOOM='%s'" % (zoom.lower())
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS",
"EFFECTOVE PIXELS",
                                "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"],
tablefmt='psql'))

            elif i == 4:
                min_price = int(input("\nEnter minimum price limit : "))
                max_price = int(input("Enter maximum price limit : "))
                query = "select * from camera where price between '%s' and '%s'" % (min_price,
max_price)

                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,

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        headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS",
"EFFECTOVE PIXELS",
        "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"],
tablefmt='psql'))

# -----TELEVISION FILTERS-----

def filter_tel():
    print("\nTo add filter for BRAND select 1")
    print("To add filter for DISPLAY Size select 2")
    print("To add filter for RESOLUTION select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("how many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:
        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from television where brand='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE",
"PRICE", "WEIGHT_kg",
"OS"], tablefmt='psql'))

        elif i == 2:
            scr_size = input("\nEnter Screen Size : ")
            query = "select * from television where DISPLAY_SIZE='%s'" % (scr_size)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE",
"PRICE", "WEIGHT_kg",
"OS"], tablefmt='psql'))

        elif i == 3:
            resolution = input("\nEnter Resolution : ")
            query = "select * from television where resolution='%s'" %
(resolution.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE",
"PRICE", "WEIGHT_kg",
"OS"], tablefmt='psql'))

        elif i == 4:
            min_price = int(input("\nEnter minimum price limit : "))
            max_price = int(input("Enter maximum price limit : "))
            query = "select * from television where price between '%s' and '%s'" %
(min_price, max_price)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE",
"PRICE", "WEIGHT_kg",
"OS"], tablefmt='psql'))

# -----COMPARING CATEGORIES-----

def mob_compare():

```

```

ncomp_mob = int(input("\nEnter how many mobiles do you want to compare (max 3) : "))
L = []
for i in range(ncomp_mob):
    mob_ID = int(input("\nEnter ID to compare: "))
    L.append(mob_ID)
    print("\n{:<5} {:<10} {:<25} {:<8} {:<8} {:<15} {:<48} {:<10} ".format("ID", "BRAND",
"MODEL", "RAM_GB",
"DISPLAY_SIZE", "CAMERA",
"ROM_GB",
"PRICE"))

    for i in L:
        query = "select * from mobile where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            mob_result_disp(row)

def tab_compare():
    ncomp_tab = int(input("\nEnter how many tablets do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_tab):
        tab_ID = int(input("\nEnter ID to compare: "))
        L.append(tab_ID)
        print(
            "\n{:<5} {:<12} {:<55} {:<10} {:<13} {:<4} {:<18} {:<15} {:<18}".format("ID",
"BRAND", "MODEL", "PRICE",
"SCREEN_SIZE", "ROM",
"RESOLUTION", "OS", "PROCESSOR"))
        for i in L:
            query = "select * from tablet where ID='%s'" % (i)
            mycursor.execute(query)
            data = mycursor.fetchall()
            for row in data:
                tab_result_disp(row)

def lap_compare():
    ncomp_lap = int(input("\nEnter how many laptops do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_lap):
        lap_ID = int(input("\nEnter ID to compare: "))
        L.append(lap_ID)
        print("\n{:<5} {:<10} {:<38} {:<7} {:<25} {:<15} {:<25} {:<35} {:<10}
{:<10}".format("ID", "BRAND", "MODEL",
"RAM_GB", "DISK_GB",
"DISPLAY_SIZE",
"PROCESSOR", "GRAPHICS",
"PRICE", "RATINGS"))
        for i in L:
            query = "select * from laptop where ID='%s'" % (i)
            mycursor.execute(query)
            data = mycursor.fetchall()
            for row in data:
                lap_result_disp(row)

def cam_compare():
    ncomp_cam = int(input("\nEnter how many camera do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_cam):
        cam_ID = int(input("\nEnter ID to compare: "))
        L.append(cam_ID)

```

```

        print(
            "\n{:<5} {:<12} {:<10} {:<20} {:<15} {:<25} {:<20} {:<15} {:<25}
{:<15}".format("ID", "BRAND", "PRICE",
"MODEL",
"TYPE", "DIMENSIONS",
"EFFECTIVE_PIXELS",
"MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"))
        for i in L:
            query = "select * from camera where ID='%s'" % (i)
            mycursor.execute(query)
            data = mycursor.fetchall()
            for row in data:
                cam_result_disp(row)

def tel_compare():
    ncomp_tel = int(input("\nEnter how many televisions do you want to compare (max 3) :
"))
    L = []
    for i in range(ncomp_tel):
        tel_ID = int(input("\nEnter ID to compare: "))
        L.append(tel_ID)
        print("\n{:<5} {:<20} {:<60} {:<12} {:<15} {:<10} {:<15} {:<12}".format("ID", "BRAND",
"MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE", "WEIGHT_kg",
"OS"))
        for i in L:
            query = "select * from television where ID='%s'" % (i)
            mycursor.execute(query)
            data = mycursor.fetchall()
            for row in data:
                tel_result_disp(row)

# -----SORTING TABLES -----
def mob_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for ROM, Select 2")
    print("To sort by for RAM, Select 3")
    print("To sort by for PRICE, Select 4")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4): "))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? :
")
            if x == "1":
                query = "select * from mobile order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
"PRICE"], tablefmt='psql'))

```

```

elif x == "2":
    query = "select * from mobile order by brand DESC"
    mycursor.execute(query)
    data = mycursor.fetchall()
    print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                    "PRICE"], tablefmt='psql'))

else:
    print("\nIncorrect Option\n")
    mob_sort()

elif i == 2:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in ROM? : ")
    if x == "1":
        query = "select * from mobile order by ROM_GB"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                        "PRICE"], tablefmt='psql'))

    elif x == "2":
        query = "select * from mobile order by ROM_GB DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                        "PRICE"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        mob_sort()

elif i == 3:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in RAM? : ")
    if x == "1":
        query = "select * from mobile order by RAM_GB"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                        "PRICE"], tablefmt='psql'))

    elif x == "2":
        query = "select * from mobile order by RAM_GB DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                        "PRICE"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        mob_sort()

elif i == 4:

```

```

x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
if x == "1":
    query = "select * from mobile order by price"
    mycursor.execute(query)
    data = mycursor.fetchall()
    print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                    "PRICE"], tablefmt='psql'))

    elif x == "2":
        query = "select * from mobile order by price DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
                        "PRICE"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        mob_sort()
else:
    print("\nIncorrect Option\n")
    mob_sort()

def tab_sort():
    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for SCREEN SIZE, Select 2")
    print("To sort by for STORAGE, Select 3")
    print("To sort by for PRICE, Select 4")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4): "))
    for i in range(N):
        x = int(input("Select Category:"))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? : ")

            if x == "1":
                query = "select * from tablet order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

            elif x == "2":
                query = "select * from tablet order by brand DESC"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

            else:
                print("\nIncorrect Option\n")
                tab_sort()

        elif i == 2:

```

```

SIZE? : ")
        x = input("\nDo you want in Ascending(1) or Descending(2) order in SCREEN
SIZE? : ")
        if x == "1":
            query = "select * from tablet order by SCREEN_SIZE"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by SCREEN__SIZE DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()

    elif i == 3:
        x = input("Do you want in Ascending(1) or Descending(2) order in STORAGE? :
\n")
        if x == "1":
            query = "select * from tablet order by ROM"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by ROM DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
        if x == "1":
            query = "select * from tablet order by price"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by price DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()

```



```

        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
                                "ROM", "RESOLUTION",
                                "OS", "PROCESSOR"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tab_sort()

    else:
        print("\nIncorrect Option\n")
        tab_sort()

def lap_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for SCREEN SIZE, Select 2")
    print("To sort by for STORAGE, Select 3")
    print("To sort by for RATINGS, Select 4")
    print("To sort by for PRICE, Select 5")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4,5): "))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? : ")

            if x == "1":
                query = "select * from laptop order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                        "DISPLAY_SIZE", "PROCESSOR",
                                        "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

            elif x == "2":
                query = "select * from laptop order by brand DESC"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                        "DISPLAY_SIZE", "PROCESSOR",
                                        "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

            else:
                print("\nIncorrect Option\n")
                lap_sort()

        elif i == 2:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in SCREEN
SIZE? : ")

            if x == "1":
                query = "select * from laptop order by DISPLAY_SIZE"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                                headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                        "DISPLAY_SIZE", "PROCESSOR",
                                        "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

            elif x == "2":
                query = "select * from laptop order by DISPLAY_SIZE DESC"

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```

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        lap_sort()

elif i == 3:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in STORAGE? :")

    if x == "1":
        query = "select * from laptop order by DISK_GB"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from laptop order by DISK_GB DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("Incorrect Option")
        lap_sort()

elif i == 4:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in RATINGS? :")

    if x == "1":
        query = "select * from laptop order by RATINGS"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from laptop order by RATINGS DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        lap_sort()

elif i == 5:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
    if x == "1":
        query = "select * from laptop order by price"

```

```

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from laptop order by price DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        lap_sort()
else:
    print("\nIncorrect Option\n")
    lap_sort()

def cam_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for EFFECTOVE PIXELS, Select 2")
    print("To sort by for DIMENSIONS, Select 3")
    print("To sort by for DIGITAL ZOOM, Select 4")
    print("To sort by for PRICE, Select 5")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4,5):"))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? :")
            if x == "1":
                query = "select * from camera order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
                                                "DIMENSIONS",
                                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
                                                "DISPLAY_RESOLUTION",
                                                "DIGITAL_ZOOM"], tablefmt='psql'))

            elif x == "2":
                query = "select * from camera order by brand DESC"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
                                                "DIMENSIONS",
                                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
                                                "DISPLAY_RESOLUTION",
                                                "DIGITAL_ZOOM"], tablefmt='psql'))

            else:
                print("Incorrect Option")
                cam_sort()

        elif i == 2:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in EFFECTOVE

```

```

PIXELS? : ")
        if x == "1":
            query = "select * from camera order by EFFECTOVE PIXELS"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by EFFECTOVE PIXELS DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 3:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in DIMENSIONS?
: ")

        if x == "1":
            query = "select * from camera order by DIMENSIONS"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by DIMENSIONS DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in DIGITAL
ZOOM? : ")

        if x == "1":
            query = "select * from camera order by DIGITAL_ZOOMMM"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

```

```

        elif x == "2":
            query = "select * from camera order by DIGITAL_ZOOM DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
                                "DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 5:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? :")
        if x == "1":
            query = "select * from camera order by price"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
                                "DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by price DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
                                "DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()
    else:
        print("\nIncorrect Option\n")
            cam_sort()

def tel_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for RESOLUTION, Select 2")
    print("To sort by for WEIGHT_kg, Select 3")
    print("To sort by for DISPLAY_SIZE, Select 4")
    print("To sort by for PRICE, Select 5")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4,5):"))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? :")
            if x == "1":
                query = "select * from television order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

```

```

        elif x == "2":
            query = "select * from television order by brand DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

        else:
            print("Incorrect Option")
            tel_sort()

    elif i == 2:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in RESOLUTION?
: ")

        if x == "1":
            query = "select * from television order by RESOLUTION"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from television order by RESOLUTION DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tel_sort()

    elif i == 3:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in WEIGHT? :
")

        if x == "1":
            query = "select * from television order by WEIGHT"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from television order by WEIGHT DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tel_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in DISPLAY
SIZE ? : ")

        if x == "1":
            query = "select * from television order by DISPLAY_SIZE"

```

```

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from television order by DISPLAY_SIZE DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tel_sort()

elif i == 5:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? :")
    if x == "1":
        query = "select * from television order by price"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from television order by price DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tel_sort()
else:
    print("\nIncorrect Option\n")
    tel_sort()

```

-----CATEGORY MENU-----

```

def add_mob():
    x = int(input("Enter number of records you want: "))
    for i in range(x):
        a = int(input("Enter ID:"))
        b = input("Enter BRAND:")
        c = input("Enter MODEL:")
        d = input("Enter RAM_GB:")
        e = input("Enter ROM_GB:")
        f = input("Enter DISPLAY:")
        g = input("Enter CAMERA:")
        h = input("Enter PRICE:")

        query = "INSERT INTO mobile (ID, BRAND, MODEL, RAM_GB, ROM_GB, DISPLAY_SIZE,
CAMERA, PRICE) VALUES ('{}', '{}', '{}', '{}', '{}', '{}', '{}', '{}')".format(
            a, b, c, d, e, f, g, h)

```

```

mycursor.execute(query)

mycon.commit()

def del_mob():
    a = int(input("Enter the number of records to delete: "))
    for i in range(a):
        x = int(input("Enter ID to delete: "))
        query = "DELETE FROM mobile WHERE ID=%s "
        mycursor.execute(query, (x,))
        mycon.commit()

def up_mob():
    a = int(input("Enter the number of records to update: "))
    for i in range(a):
        x = input("Enter the specification to update: ")
        if x.upper() == 'BRAND':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set BRAND=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'MODEL':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set MODEL=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'RAM_GB':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set RAM_GB=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'ROM_GB':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set ROM_GB=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'DISPLAY_SIZE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set DISPLAY_SIZE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'CAMERA':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE mobile set CAMERA=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'PRICE':
            y = int(input("Enter ID to update: "))

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```

        y_1 = input("Enter the updated value: ")
        query = "UPDATE mobile set PRICE=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    else:
        print("WRONG INPUT")
        up_mob()

def function_menu_mob():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for ADDING records ")
    print("select 5 for DELETING records")
    print("select 6 for UPDATE records")
    print("select 7 for BACK TO MAIN MENU\n")

    opt = int(input("Enter the option : "))

    if opt == 1:
        mob_sort()

    elif opt == 2:
        filter_mob()

    elif opt == 3:
        mob_compare()

    elif opt == 7:
        main_menu()

    elif opt == 4:
        add_mob()

    elif opt == 5:
        del_mob()

    elif opt == 6:
        up_mob()

    else:
        print("WRONG INPUT")
        function_menu_mob()

def add_tab():
    x = int(input("Enter number of records you want: "))
    for i in range(x):
        a = int(input("Enter ID:"))
        b = input("Enter BRAND:")
        c = input("Enter MODEL:")
        d = input("Enter PRICE:")
        e = input("Enter SCREEN_SIZE:")
        f = input("Enter ROM:")
        g = input("Enter RESOLUTION:")
        h = input("Enter OS:")
        i = input("Enter PROCESSOR: ")

        query = "INSERT INTO tablet (ID, BRAND, MODEL, PRICE, SCREEN_SIZE, ROM,
RESOLUTION, OS, PROCESSOR) VALUES ('{}', '{}', '{}', '{}', '{}', '{}', '{}', '{}', '{}')".format(
            a, b, c, d, e, f, g, h, i)
        mycursor.execute(query)

        mycon.commit()

```

```

def del_tab():
    a = int(input("Enter the number of records to delete: "))
    for i in range(a):
        x = int(input("Enter ID to delete: "))
        query = "DELETE FROM tablet WHERE ID=%s "
        mycursor.execute(query, (x,))
        mycon.commit()

def up_tab():
    a = int(input("Enter the number of records to update: "))
    for i in range(a):
        x = input("Enter the specification to update: ")
        if x.upper() == 'BRAND':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set BRAND=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'MODEL':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set MODEL=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'PRICE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set PRICE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'SCREEN_SIZE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set SCREEN_SIZE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'ROM':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set ROM=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'RESOLUTION':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set RESOLUTION=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'OS':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE tablet set OS=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)

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        mycon.commit()

    elif x.upper() == 'PROCESSOR':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE tablet set PROCESSOR=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    else:
        print("WRONG INPUT")
        up_tab()

def function_menu_tab():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for ADDING records ")
    print("select 5 for DELETING records")
    print("select 6 for UPDATE records")
    print("select 7 for BACK TO MAIN MENU\n")
    opt = int(input("Enter the option : "))

    if opt == 1:
        tab_sort()

    elif opt == 2:
        filter_tab()

    elif opt == 3:
        tab_compare()

    elif opt == 7:
        main_menu()

    elif opt == 4:
        add_tab()

    elif opt == 5:
        del_tab()

    elif opt == 6:
        up_tab()

    else:
        print("WRONG INPUT")
        function_menu_tab()

def add_lap():
    x = int(input("Enter number of records you want: "))
    for i in range(x):
        a = int(input("Enter ID:"))
        b = input("Enter BRAND:")
        c = input("Enter MODEL:")
        d = input("Enter RAM_GB:")
        e = input("Enter DISK_GB:")
        f = input("Enter DISPLAY_SIZE:")
        g = input("Enter PROCESSOR:")
        h = input("Enter GRAPHICS:")
        i = input("Enter PRICE: ")
        j = input("Enter RATINGS(OUT OF 5)")

        query = "INSERT INTO laptop (ID, BRAND, MODEL, RAM_GB, DISK_GB, DISPLAY_SIZE,
PROCESSOR, GRAPHICS, PRICE, RATINGS) VALUES ('{}', '{}', '{}', '{}', '{}', '{}', '{}', '{}',
'{}', '{}')".format(

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```

        a, b, c, d, e, f, g, h, i, j)
mycursor.execute(query)

mycon.commit()

def del_lap():
    a = int(input("Enter the number of records to delete: "))
    for i in range(a):
        x = int(input("Enter ID to delete: "))
        query = "DELETE FROM laptop WHERE ID=%s "
        mycursor.execute(query, (x,))
        mycon.commit()

def up_lap():
    a = int(input("Enter the number of records to update: "))
    for i in range(a):
        x = input("Enter the specification to update: ")
        if x.upper() == 'BRAND':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set BRAND=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'MODEL':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set MODEL=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'RAM_GB':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set RAM_GB=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'DISK_GB':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set DISK_GB=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'DISPLAY_SIZE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set DISPLAY_SIZE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'PROCESSOR':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE laptop set PROCESSOR=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'GRAPHICS':

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        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE laptop set GRAPHICS=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'PRICE':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE laptop set PRICE=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'RATINGS':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE laptop set RATINGS=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    else:
        print("WRONG INPUT")
        up_lap()

def function_menu_lap():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for ADDING records ")
    print("select 5 for DELETING records")
    print("select 6 for UPDATE records")
    print("select 7 for BACK TO MAIN MENU\n")
    opt = int(input("Enter the option : "))

    if opt == 1:
        lap_sort()

    elif opt == 2:
        filter_lap()

    elif opt == 3:
        lap_compare()

    elif opt == 7:
        main_menu()

    elif opt == 4:
        add_lap()

    elif opt == 5:
        del_lap()

    elif opt == 6:
        up_lap()

    else:
        print("WRONG INPUT")
        function_menu_lap()

def add_cam():
    x = int(input("Enter number of records you want: "))
    for i in range(x):
        a = int(input("Enter ID:"))

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```

b = input("Enter BRAND:")
c = input("Enter PRICE:")
d = input("Enter MODEL:")
e = input("Enter TYPE:")
f = input("Enter DIMENSIONS:")
g = input("Enter EFFECTIVE_PIXELS:")
h = input("Enter MODEL_NUMBER :")
i = input("Enter DISPLAY_RESOLUTION: ")
j = input("Enter DIGITAL_ZOOM")

query = "INSERT INTO camera (ID, BRAND, PRICE , MODEL, TYPE, DIMENSIONS,
EFFECTIVE_PIXELS, MODEL_NUMBER, DISPLAY_RESOLUTION, DIGITAL_ZOOM) VALUES ('{}', '{}', '{}', '{}',
'{}', '{}', '{}', '{}', '{}', '{}')".format(
    a, b, c, d, e, f, g, h, i, j)
mycursor.execute(query)

mycon.commit()

def del_cam():
    a = int(input("Enter the number of records to delete: "))
    for i in range(a):
        x = int(input("Enter ID to delete: "))
        query = "DELETE FROM camera WHERE ID=%s "
        mycursor.execute(query, (x,))
        mycon.commit()

def up_cam():
    a = int(input("Enter the number of records to update: "))
    for i in range(a):
        x = input("Enter the specification to update: ")
        if x.upper() == 'BRAND':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE camera set BRAND=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'PRICE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE camera set PRICE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'MODEL':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE camera set MODEL=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'TYPE':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE camera set TYPE=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'DIMENSIONS':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE camera set DIMENSIONS=%s WHERE ID= %s"

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        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'EFFECTIVE_PIXELS':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE camera set EFFECTIVE_PIXELS=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'MODEL_NUMBER':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE camera set MODEL_NUMBER=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'DISPLAY_RESOLUTION':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE camera set DISPLAY_RESOLUTION=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'DIGITAL_ZOOM':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE camera set DIGITAL_ZOOM=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    else:
        print("WRONG INPUT")
        up_cam()

def function_menu_cam():
    print("\nselect 1 for SORT")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for ADDING records ")
    print("select 5 for DELETING records")
    print("select 6 for UPDATE records")
    print("select 7 for BACK TO MAIN MENU\n")
    opt = int(input("Enter the option : "))

    if opt == 1:
        cam_sort()

    elif opt == 2:
        filter_cam()

    elif opt == 3:
        cam_compare()

    elif opt == 7:
        main_menu()

    elif opt == 4:
        add_cam()

    elif opt == 5:

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```

        del_cam()

    elif opt == 6:
        up_cam()

    else:
        print("WRONG INPUT")
        function_menu_cam()

def add_tel():
    x = int(input("Enter number of records you want: "))
    for i in range(x):
        a = int(input("Enter ID:"))
        b = input("Enter BRAND:")
        c = input("Enter MODEL:")
        d = input("Enter RESOLUTION:")
        e = input("Enter DISPLAY_SIZE:")
        f = input("Enter PRICE:")
        g = input("Enter WEIGHT_KG:")
        h = input("Enter OS:")

        query = "INSERT INTO television (ID, BRAND, MODEL, RESOLUTION ,DISPLAY_SIZE
,PRICE, WEIGHT_KG, OS) VALUES ('{}', '{}', '{}', '{}', '{}', '{}', '{}', '{}')".format(
            a, b, c, d, e, f, g, h)
        mycursor.execute(query)

        mycon.commit()

def del_tel():
    a = int(input("Enter the number of records to delete: "))
    for i in range(a):
        x = int(input("Enter ID to delete: "))
        query = "DELETE FROM television WHERE ID=%s "
        mycursor.execute(query, (x,))
        mycon.commit()

def up_tel():
    a = int(input("Enter the number of records to update: "))
    for i in range(a):
        x = input("Enter the specification to update: ")
        if x.upper() == 'BRAND':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE television set BRAND=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'MODEL':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE television set MODEL=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'RESOLUTION':
            y = int(input("Enter ID to update: "))
            y_1 = input("Enter the updated value: ")
            query = "UPDATE television set RESOLUTION=%s WHERE ID= %s"
            input_1 = (y_1.upper(), y)
            mycursor.execute(query, input_1)
            mycon.commit()

        elif x.upper() == 'DISPLAY_SIZE':
            y = int(input("Enter ID to update: "))

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        y_1 = input("Enter the updated value: ")
        query = "UPDATE television set DISPLAY_SIZE=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'PRICE':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE television set PRICE=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'WEIGHT_KG':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE television set WEIGHT_KG=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    elif x.upper() == 'OS':
        y = int(input("Enter ID to update: "))
        y_1 = input("Enter the updated value: ")
        query = "UPDATE television set OS=%s WHERE ID= %s"
        input_1 = (y_1.upper(), y)
        mycursor.execute(query, input_1)
        mycon.commit()

    else:
        print("WRONG INPUT")
        up_tel()

def function_menu_tel():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for ADDING records ")
    print("select 5 for DELETING records")
    print("select 6 for UPDATE records")
    print("select 7 for BACK TO MAIN MENU\n")
    opt = int(input("Enter the option : "))

    if opt == 1:
        tel_sort()

    elif opt == 2:
        filter_tel()

    elif opt == 3:
        tel_compare()

    elif opt == 7:
        main_menu()

    elif opt == 4:
        add_tel()

    elif opt == 5:
        del_tel()

    elif opt == 6:
        up_tel()

    else:

```

```

        print("WRONG INPUT")
        function_menu_tel()

#-----MAIN MENU-----
def thankyou_msg():

print("\n*****")
    print("***** THANK YOU FOR VISITING COMPARE PRODUCT SYSTEM *****")
    print("*****")

def main_menu():
    print("\n***** MOBILE (1) *****")
    print("***** TABLET (2) *****")
    print("***** LAPTOP (3) *****")
    print("***** CAMERA (4) *****")
    print("***** TELEVISION (5) *****")
    print("***** NEW PRODUCTS (6) *****")
    print("***** ADD CATEGORY (7) *****")
    print("***** DELETE CATEGORY (8) *****")
    print("***** EXIT (0) *****\n")

    cat = int(input("Select Option : "))

    if cat == 0:
        thankyou_msg()
        exit()

    elif cat == 1:
        mobile()
        ans = input("\nDo you wish to continue with MOBILE? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_mob()
            ans = input("\nDo you wish to continue with MOBILE? (y/n) : ")

    elif cat == 2:
        tablet()
        ans = input("\nDo you wish to continue with TABLET? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_tab()
            ans = input("\nDo you wish to continue with TABLET? (y/n) : ")

    elif cat == 3:
        laptop()
        ans = input("\nDo you wish to continue with LAPTOP? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_lap()
            ans = input("\nDo you wish to continue with LAPTOP ? (y/n) : ")

    elif cat == 4:
        camera()
        ans = input("\nDo you wish to continue with CAMERA? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_cam()
            ans = input("\nDo you wish to continue with CAMERA? (y/n) : ")

    elif cat == 5:
        television()
        ans = input("\nDo you wish to continue with TELEVISION? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_tel()
            ans = input("\nDo you wish to continue with TELEVISION? (y/n) : ")

    elif cat == 7:
        add_cat()
        ans = input("\nDo you wish to continue with ADD CATEGORY? (y/n) : ")

```

```

        while ans.lower() == 'y':
            add_cat()
            ans = input("\nDo you wish to continue with ADD CATEGORY? (y/n) : ")

    elif cat == 8:
        del_cat()
        ans = input("\nDo you wish to continue with DELETE CATEGORY? (y/n) : ")
        while ans.lower() == 'y':
            del_cat()
            ans = input("\nDo you wish to continue with DELETE CATEGORY? (y/n) : ")

    elif cat == 6:
        disp_cat()
        ans = input("\nDo you wish to continue with DISPLAY NEW CATEGORY? (y/n) : ")
        while ans.lower() == 'y':
            del_cat()
            ans = input("\nDo you wish to continue with DISPLAY NEW CATEGORY? (y/n) : ")

    else:
        print("OOPS !! INVALID Input ...")

#START OF PROGRAM
print("\n\n*****")
print("***** WELCOME ADMIN TO COMPARE PRODUCT SYSTEM *****")
print("*****")

ans = 'y'
while ans.lower() == 'y':
    main_menu()

#END OF PROGRAM

```

```

def appscreen(self):

    # DISPLAY WHOLE TABLE
    def mobile():
        mycursor.execute("SELECT * FROM MOBILE")
        myresult = mycursor.fetchall()

        print(tabulate(myresult, headers=["ID", "BRAND", "MODEL",
"RAM_GB", "ROM_GB", "DISPLAY_SIZE", "CAMERA", "PRICE"], tablefmt='psql'))

    def tablet():
        mycursor.execute("select * from tablet")
        myresult = mycursor.fetchall()

        print(tabulate(myresult,
headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM", "RESOLUTION", "OS", "PROCESSOR"],
tablefmt='psql'))

    def laptop():
        mycursor.execute("select * from laptop")
        myresult = mycursor.fetchall()

        print(tabulate(myresult,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))

    def camera():
        mycursor.execute("select * from camera")
        myresult = mycursor.fetchall()

```

```

        print(tabulate(myresult,
headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS", "EFFECTOVE
PIXELS", "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"], tablefmt='psql'))

def television():
    mycursor.execute("select * from television")
    myresult = mycursor.fetchall()

    print(tabulate(myresult,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE", "WEIGHT_kg", "OS"],
tablefmt='psql'))

# DISPLAY WITH PROPER FORMATING

def mob_result_disp(data1):
    ID, BRAND, MODEL, RAM_GB, ROM_GB, DISPLAY_SIZE, CAMERA, PRICE = data1
    print ("{:<5} {:<10} {:<25} {:<8} {:<8} {:<15} {:<48}
{:<10}".format(ID, BRAND, MODEL, RAM_GB, ROM_GB, DISPLAY_SIZE, CAMERA, PRICE))

def tab_result_disp(data1):
    ID, BRAND, MODEL, PRICE, SCREEN_SIZE, ROM, RESOLUTION, OS, PROCESSOR = data1
    print ("{:<5} {:<12} {:<55} {:<10} {:<13} {:<4} {:<18} {:<15}
{:<18}".format(ID, BRAND, MODEL, PRICE, SCREEN_SIZE, ROM, RESOLUTION, OS, PROCESSOR))

def lap_result_disp(data1):
    ID, BRAND, MODEL, RAM_GB, DISK_GB, DISPLAY_SIZE, PROCESSOR, GRAPHICS, PRICE, RATINGS =
data1
    print("{:<5} {:<10} {:<38} {:<7} {:<25} {:<15} {:<25} {:<35} {:<10} {:<10}".format(ID,
BRAND, MODEL, RAM_GB, DISK_GB, DISPLAY_SIZE, PROCESSOR, GRAPHICS, PRICE, RATINGS))

def cam_result_disp(data1):
    ID, BRAND, PRICE, MODEL, TYPE, DIMENSIONS, EFFECTIVE_PIXELS, MODEL_NUMBER,
DISPLAY_RESOLUTION, DIGITAL_ZOOM = data1
    print("{:<5} {:<12} {:<10} {:<20} {:<15} {:<25} {:<20} {:<15} {:<25}
{:<15}".format(ID, BRAND, PRICE, MODEL, TYPE,
DIMENSIONS, EFFECTIVE_PIXELS, MODEL_NUMBER, DISPLAY_RESOLUTION, DIGITAL_ZOOM))

def tel_result_disp(data1):
    ID, BRAND, MODEL, RESOLUTION, DISPLAY_SIZE, PRICE, WEIGHT_kg, OS = data1
    print("{:<5} {:<20} {:<60} {:<12} {:<15} {:<10} {:<15} {:<12}".format(ID, BRAND,
MODEL, RESOLUTION, DISPLAY_SIZE, PRICE, WEIGHT_kg, OS))

def disp_cat():
    q = "select * from new_cat"
    mycursor.execute(q)
    data = mycursor.fetchall()

    print(tabulate(data, headers=["NEW PRODUCTS"], tablefmt='psql'))
    x = input("Enter the name of category you want to see? ").lower()
    query = "SELECT * FROM {tab}".format(tab=x)
    mycursor.execute(query)
    myresult = mycursor.fetchall()

    print(tabulate(myresult, tablefmt='psql'))

```

```

# -----MOBILE-----
def filter_mob():

    print("\nTo add filter for BRAND, Select 1")
    print("To add filter for ROM, Select 2")
    print("To add filter for RAM, Select 3")
    print("To add filter for PRICE, Select 4")
    L = []
    N = int(input("\nHow Many filters do you want to add (1,2,3,4): "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

        if i == 1:
            brand = input("\nEnter BRAND Name : ")
            query = "select * from mobile where BRAND='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()

            print(tabulate(data, headers=["ID", "BRAND", "MODEL",
"RAM_GB", "ROM_GB", "DISPLAY_SIZE", "CAMERA", "PRICE"], tablefmt='psql'))

        elif i == 2:
            rom = input("\nEnter ROM Size : ")
            query = "select * from mobile where ROM_GB='%s'" % (rom.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()

            print(tabulate(data, headers=["ID", "BRAND", "MODEL",
"RAM_GB", "ROM_GB", "DISPLAY_SIZE", "CAMERA", "PRICE"], tablefmt='psql'))

        elif i == 3:
            ram = input("\nEnter RAM Size : ")
            query = "select * from mobile where RAM_GB='%s'" % (ram.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()

            print(tabulate(data, headers=["ID", "BRAND", "MODEL",
"RAM_GB", "ROM_GB", "DISPLAY_SIZE", "CAMERA", "PRICE"], tablefmt='psql'))

        elif i == 4:
            min_price = int(input("\nEnter Minimum PRICE : "))
            max_price = int(input("Enter Maximum PRICE : "))
            query = "select * from mobile where PRICE between '%s' and '%s'" % (min_price,
max_price)

            mycursor.execute(query)
            data = mycursor.fetchall()
            print(data)
            if len(data) == 0:
                print("No match found")
            else:

                print(tabulate(data, headers=["ID", "BRAND", "MODEL",
"RAM_GB", "ROM_GB", "DISPLAY_SIZE", "CAMERA", "PRICE"], tablefmt='psql'))
            else:
                print("Incorrect option")
                filter_mob()

# -----TABLET-----

def filter_tab():

    print("\nTo add filter for BRAND select 1")
    print("To add filter for SCREEN Size select 2")
    print("To add filter for STORAGE Size select 3")
    print("To add filter for PRICE select 4")
    L = []

```

```

N = int(input("\nHow many filters do you want to add : "))
for i in range(N):
    x = int(input("Enter Filter to Add : "))
    L.append(x)

for i in L:

    if i == 1:
        brand = input("\nEnter Brand : ")
        query = "select * from tablet where BRAND='%s'" % (brand.lower())
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM", "RESOLUTION", "OS", "PROCESSOR"],
tablefmt='psql'))

        elif i == 2:
            scr_size = input("\nEnter Screen Size : ")
            query = "select * from tablet where SCREEN_SIZE='%s'" % (scr_size)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM", "RESOLUTION", "OS", "PROCESSOR"],
tablefmt='psql'))

            elif i == 3:
                storage = input("\nEnter Storage Size : ")
                query = "select * from tablet where ROM='%s'" % (storage)
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM", "RESOLUTION", "OS", "PROCESSOR"],
tablefmt='psql'))

                elif i == 4:
                    min_price = int(input("\nEnter minimum price limit : "))
                    max_price = int(input("Enter maximum price limit : "))
                    query = "select * from tablet where PRICE between '%s' and '%s'" % (min_price,
max_price)
                    mycursor.execute(query)
                    data = mycursor.fetchall()
                    print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE", "ROM", "RESOLUTION", "OS", "PROCESSOR"],
tablefmt='psql'))

                    else:
                        print("Incorrect option")
                        filter_tab()
# -----LAPTOP-----

def filter_lap():

    print("\nTo add filter for BRAND select 1")
    print("To add filter for SCREEN Size select 2")
    print("To add filter for STORGAE Size select 3")
    print("To sort by for RATINGS, Select 4")
    print("To add filter for PRICE select 5")
    L = []
    N = int(input("\nHow many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

        if i == 1:

```

```

        brand = input("\nEnter Brand : ")
        query = "select * from laptop where brand='%s'" % (brand.lower())
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))

    elif i == 2:
        scr_size = input("\nEnter Screen Size : ")
        query = "select * from laptop where DISPLAY_SIZE='%s'" % (scr_size)
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))

    elif i == 3:
        storage = input("\nEnter Storage Size : ")
        query = "select * from laptop where DISC_GB='%s'" % (storage)
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))

    elif i == 4:
        min_rating = int(input("\nEnter minimum rating limit : "))
        max_rating = int(input("Enter maximum rating limit : "))
        query = "select * from laptop where ratings between '%s' and '%s'" %
(min_rating, max_rating)
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))

    elif i == 5:
        min_price = int(input("\nEnter minimum price limit : "))
        max_price = int(input("Enter maximum price limit : "))
        query = "select * from laptop where price between '%s' and '%s'" % (min_price,
max_price)
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB", "DISPLAY_SIZE", "PROCESSOR", "GRAPHICS", "PRICE", "R
ATINGS"], tablefmt='psql'))
    else:
        print("Incorrect option")
        filter_lap()

# -----CAMERA-----

def filter_cam():

    print("\nTo add filter for BRAND select 1")
    print("To add filter for PIXEL select 2")
    print("To add filter for ZOOM select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("\nHow many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

```

```

        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from camera where brand='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS", "EFFECTOVE
PIXELS", "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"], tablefmt='psql'))

        elif i == 2:
            pixel = input("\nEnter Pixel : ")
            query = "select * from camera where effective_pixels='%s'" % (pixel)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS", "EFFECTOVE
PIXELS", "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"], tablefmt='psql'))

        elif i == 3:
            zoom = input("\nEnter Zoom : ")
            query = "select * from camera where DIGITAL_ZOOM='%s'" % (zoom.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS", "EFFECTOVE
PIXELS", "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"], tablefmt='psql'))

        elif i == 4:
            min_price = int(input("\nEnter minimum price limit : "))
            max_price = int(input("Enter maximum price limit : "))
            query = "select * from camera where price between '%s' and '%s'" % (min_price,
max_price)

            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE", "DIMENSIONS", "EFFECTOVE
PIXELS", "MODEL_NUMBER", "DISPLAY_RESOLUTION", "DIGITAL_ZOOM"], tablefmt='psql'))
        else:
            print("Incorrect option")
            filter_cam()

# -----TELEVISION-----

def filter_tel():

    print("\nTo add filter for BRAND select 1")
    print("To add filter for DISPLAY Size select 2")
    print("To add filter for RESOLUTION select 3")
    print("To add filter for PRICE select 4")
    L = []
    N = int(input("how many filters do you want to add : "))
    for i in range(N):
        x = int(input("Enter Filter to Add : "))
        L.append(x)

    for i in L:

        if i == 1:
            brand = input("\nEnter Brand : ")
            query = "select * from television where brand='%s'" % (brand.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE", "WEIGHT_kg", "OS"],
tablefmt='psql'))

```



```

        elif i == 2:
            scr_size = input("\nEnter Screen Size : ")
            query = "select * from television where DISPLAY_SIZE='%s'" % (scr_size)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE", "WEIGHT_kg", "OS"],
tablefmt='psql'))

        elif i == 3:
            resolution = input("\nEnter Resolution : ")
            query = "select * from television where resolution='%s'" %
(resolution.lower())
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE", "WEIGHT_kg", "OS"],
tablefmt='psql'))

        elif i == 4:
            min_price = int(input("\nEnter minimum price limit : "))
            max_price = int(input("Enter maximum price limit : "))
            query = "select * from television where price between '%s' and '%s'" %
(min_price, max_price)
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
headers=["ID", "BRAND", "MODEL", "RESOLUTION", "DISPLAY_SIZE", "PRICE", "WEIGHT_kg", "OS"],
tablefmt='psql'))
        else:
            print("Incorrect option")
            filter_tel()

# COMPARING DEVICES

def mob_compare():
    ncomp_mob = int(input("\nEnter how many mobiles do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_mob):
        mob_ID = int(input("\nEnter ID to compare: "))
        L.append(mob_ID)
        print("\n{:<5} {:<10} {:<25} {:<8} {:<8} {:<15} {:<48} {:<10} ".format("ID", "BRAND",
"MODEL", "RAM_GB",
"DISPLAY_SIZE", "CAMERA",
"ROM_GB",
"PRICE"))
    for i in L:
        query = "select * from mobile where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            mob_result_disp(row)

def tab_compare():
    ncomp_tab = int(input("\nEnter how many tablets do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_tab):
        tab_ID = int(input("\nEnter ID to compare: "))
        L.append(tab_ID)
        print(
"\n{:<5} {:<12} {:<55} {:<10} {:<13} {:<4} {:<18} {:<15} {:<18}".format("ID",
"BRAND", "MODEL", "PRICE",
"SCREEN_SIZE", "ROM",

```

```

"RESOLUTION", "OS", "PROCESSOR"))
    for i in L:
        query = "select * from tablet where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            tab_result_disp(row)

def lap_compare():
    ncomp_lap = int(input("\nEnter how many laptops do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_lap):
        lap_ID = int(input("\nEnter ID to compare: "))
        L.append(lap_ID)
    print("\n{<5} {<10} {<38} {<7} {<25} {<15} {<25} {<35} {<10}
{<10}".format("ID", "BRAND", "MODEL",

"RAM_GB", "DISK_GB",

"DISPLAY_SIZE",

"PROCESSOR", "GRAPHICS",

"PRICE", "RATINGS"))
    for i in L:
        query = "select * from laptop where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            lap_result_disp(row)

def cam_compare():
    ncomp_cam = int(input("\nEnter how many camera do you want to compare (max 3) : "))
    L = []
    for i in range(ncomp_cam):
        cam_ID = int(input("\nEnter ID to compare: "))
        L.append(cam_ID)
    print("\n{<5} {<12} {<10} {<20} {<15} {<25} {<20} {<15} {<25}
{<15}".format("ID", "BRAND", "PRICE",

"MODEL", "TYPE",

"DIMENSIONS",

"EFFECTIVE_PIXELS",

"MODEL_NUMBER",

"DISPLAY_RESOLUTION",

"DIGITAL_ZOOM"))
    for i in L:
        query = "select * from camera where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            cam_result_disp(row)

def tel_compare():
    ncomp_tel = int(input("\nEnter how many televisions do you want to compare (max 3) :
"))
    L = []
    for i in range(ncomp_tel):
        tel_ID = int(input("\nEnter ID to compare: "))
        L.append(tel_ID)

```

```

        print("\n{:<5} {:<20} {:<60} {:<12} {:<15} {:<10} {:<15} {:<12}".format("ID", "BRAND",
"MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE", "WEIGHT_kg",
"OS"))
    for i in L:
        query = "select * from television where ID='%s'" % (i)
        mycursor.execute(query)
        data = mycursor.fetchall()
        for row in data:
            tel_result_disp(row)

# -----SORTING -----

def mob_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for ROM, Select 2")
    print("To sort by for RAM, Select 3")
    print("To sort by for PRICE, Select 4")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4): "))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? : ")

            if x == "1":
                query = "select * from mobile order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
"PRICE"], tablefmt='psql'))

            elif x == "2":
                query = "select * from mobile order by brand DESC"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
"PRICE"], tablefmt='psql'))

            else:
                print("\nIncorrect Option\n")
                mob_sort()

        elif i == 2:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in ROM? : ")
            if x == "1":
                query = "select * from mobile order by ROM_GB"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data,
                    headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
"DISPLAY_SIZE", "CAMERA",
"PRICE"], tablefmt='psql'))

            elif x == "2":
                query = "select * from mobile order by ROM_GB DESC"

```

```

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
                                "PRICE"], tablefmt='psql'))

        "DISPLAY_SIZE", "CAMERA",

    else:
        print("\nIncorrect Option\n")
        mob_sort()

elif i == 3:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in RAM? : ")
    if x == "1":
        query = "select * from mobile order by RAM_GB"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
                                "PRICE"], tablefmt='psql'))

        "DISPLAY_SIZE", "CAMERA",

    elif x == "2":
        query = "select * from mobile order by RAM_GB DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
                                "PRICE"], tablefmt='psql'))

        "DISPLAY_SIZE", "CAMERA",

    else:
        print("\nIncorrect Option\n")
        mob_sort()

elif i == 4:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
    if x == "1":
        query = "select * from mobile order by price"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
                                "PRICE"], tablefmt='psql'))

        "DISPLAY_SIZE", "CAMERA",

    elif x == "2":
        query = "select * from mobile order by price DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "ROM_GB",
                                "PRICE"], tablefmt='psql'))

        "DISPLAY_SIZE", "CAMERA",

    else:
        print("\nIncorrect Option\n")
        mob_sort()

else:
    print("\nIncorrect Option\n")
    mob_sort()

def tab_sort():

```

```

print("\nTo sort by for BRAND, Select 1")
print("To sort by for SCREEN SIZE, Select 2")
print("To sort by for STORAGE, Select 3")
print("To sort by for PRICE, Select 4")
L = []
N = int(input("\nHow Many sort do you want to add (1,2,3,4): "))
for i in range(N):
    x = int(input("Select Category:"))
    L.append(x)

for i in L:
    if i == 1:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? : ")

        if x == "1":
            query = "select * from tablet order by brand"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
                                    "ROM", "RESOLUTION",
                                    "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by brand DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
                                    "ROM", "RESOLUTION",
                                    "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()

    elif i == 2:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in SCREEN
SIZE? : ")

        if x == "1":
            query = "select * from tablet order by SCREEN_SIZE"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
                                    "ROM", "RESOLUTION",
                                    "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by SCREEN__SIZE DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
                                    "ROM", "RESOLUTION",
                                    "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()

    elif i == 3:
        x = input("Do you want in Ascending(1) or Descending(2) order in STORAGE? : ")

```

```

        if x == "1":
            query = "select * from tablet order by ROM"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                           "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by ROM DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                           "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
        if x == "1":
            query = "select * from tablet order by price"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                           "OS", "PROCESSOR"], tablefmt='psql'))

        elif x == "2":
            query = "select * from tablet order by price DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "PRICE", "SCREEN_SIZE",
"ROM", "RESOLUTION",
                           "OS", "PROCESSOR"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tab_sort()
    else:
        print("\nIncorrect Option\n")
        tab_sort()

def lap_sort():
    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for SCREEN SIZE, Select 2")
    print("To sort by for STORAGE, Select 3")
    print("To sort by for RATINGS, Select 4")
    print("To sort by for PRICE, Select 5")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4,5): "))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? : ")

```

```

")
        if x == "1":
            query = "select * from laptop order by brand"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                           "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from laptop order by brand DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                           "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            lap_sort()

    elif i == 2:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in SCREEN
SIZE? : ")
        if x == "1":
            query = "select * from laptop order by DISPLAY_SIZE"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                           "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from laptop order by DISPLAY_SIZE DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                           "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            lap_sort()

    elif i == 3:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in STORAGE?
:")
        if x == "1":
            query = "select * from laptop order by DISK_GB"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                           headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
"DISPLAY_SIZE", "PROCESSOR",
                           "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from laptop order by DISK_GB DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()

```

```

        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("Incorrect Option")
        lap_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in RATINGS? : ")

    if x == "1":
        query = "select * from laptop order by RATINGS"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from laptop order by RATINGS DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data,
                        headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                "DISPLAY_SIZE", "PROCESSOR",
                                "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        lap_sort()

    elif i == 5:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? : ")
        if x == "1":
            query = "select * from laptop order by price"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                    "DISPLAY_SIZE", "PROCESSOR",
                                    "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        elif x == "2":
            query = "select * from laptop order by price DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data,
                            headers=["ID", "BRAND", "MODEL", "RAM_GB", "DISK_GB",
                                    "DISPLAY_SIZE", "PROCESSOR",
                                    "GRAPHICS", "PRICE", "RATINGS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            lap_sort()

    else:
        print("\nIncorrect Option\n")
        lap_sort()

def cam_sort():
    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for EFFECTOVE PIXELS, Select 2")
    print("To sort by for DIMENSIONS, Select 3")

```



```

print("To sort by for DIGITAL ZOOM, Select 4")
print("To sort by for PRICE, Select 5")
L = []
N = int(input("\nHow Many sort do you want to add (1,2,3,4,5):"))
for i in range(N):
    x = int(input("Select Category: "))
    L.append(x)

for i in L:
    if i == 1:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? :")
        if x == "1":
            query = "select * from camera order by brand"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by brand DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("Incorrect Option")
            cam_sort()

    elif i == 2:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in EFFECTOVE
PIXELS? : ")
        if x == "1":
            query = "select * from camera order by EFFECTOVE PIXELS"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by EFFECTOVE PIXELS DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 3:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in DIMENSIONS?

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```

: ")

        if x == "1":
            query = "select * from camera order by DIMENSIONS"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by DIMENSIONS DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 4:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in DIGITAL
ZOOM? : ")

        if x == "1":
            query = "select * from camera order by DIGITAL_ZOOMM"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by DIGITAL_ZOOM DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            cam_sort()

    elif i == 5:
        x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? :")
        if x == "1":
            query = "select * from camera order by price"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
"EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
"DIGITAL_ZOOM"], tablefmt='psql'))

        elif x == "2":
            query = "select * from camera order by price DESC"

```

```

        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "PRICE", "MODEL", "TYPE",
"DIMENSIONS",
                                "EFFECTOVE PIXELS", "MODEL_NUMBER",
"DISPLAY_RESOLUTION",
                                "DIGITAL_ZOOM"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        cam_sort()
    else:
        print("\nIncorrect Option\n")
        cam_sort()

def tel_sort():

    print("\nTo sort by for BRAND, Select 1")
    print("To sort by for RESOLUTION, Select 2")
    print("To sort by for WEIGHT_kg, Select 3")
    print("To sort by for DISPLAY_SIZE, Select 4")
    print("To sort by for PRICE, Select 5")
    L = []
    N = int(input("\nHow Many sort do you want to add (1,2,3,4,5):"))
    for i in range(N):
        x = int(input("Select Category: "))
        L.append(x)

    for i in L:
        if i == 1:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in BRAND ? :")
            if x == "1":
                query = "select * from television order by brand"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

            elif x == "2":
                query = "select * from television order by brand DESC"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

            else:
                print("Incorrect Option")
                tel_sort()

        elif i == 2:
            x = input("\nDo you want in Ascending(1) or Descending(2) order in RESOLUTION?
: ")
            if x == "1":
                query = "select * from television order by RESOLUTION"
                mycursor.execute(query)
                data = mycursor.fetchall()
                print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

            elif x == "2":
                query = "select * from television order by RESOLUTION DESC"
                mycursor.execute(query)

```

```

        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tel_sort()

elif i == 3:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in WEIGHT? :
")

    if x == "1":
        query = "select * from television order by WEIGHT"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from television order by WEIGHT DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tel_sort()

elif i == 4:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in DISPLAY
SIZE ? : ")

    if x == "1":
        query = "select * from television order by DISPLAY_SIZE"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    elif x == "2":
        query = "select * from television order by DISPLAY_SIZE DESC"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

    else:
        print("\nIncorrect Option\n")
        tel_sort()

elif i == 5:
    x = input("\nDo you want in Ascending(1) or Descending(2) order in PRICE? :")
    if x == "1":
        query = "select * from television order by price"
        mycursor.execute(query)
        data = mycursor.fetchall()
        print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
                                "WEIGHT_kg", "OS"], tablefmt='psql'))

```

```

        elif x == "2":
            query = "select * from television order by price DESC"
            mycursor.execute(query)
            data = mycursor.fetchall()
            print(tabulate(data, headers=["ID", "BRAND", "MODEL", "RESOLUTION",
"DISPLAY_SIZE", "PRICE",
"WEIGHT_kg", "OS"], tablefmt='psql'))

        else:
            print("\nIncorrect Option\n")
            tel_sort()
    else:
        print("\nIncorrect Option\n")
        tel_sort()

def function_menu_mob():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for BACK TO MAIN MENU\n")
    opt = int(input("Enter the option : "))

    if opt == 1:
        mob_sort()

    elif opt == 2:
        filter_mob()

    elif opt == 3:
        mob_compare()

    elif opt == 4:
        main_menu()

def function_menu_tab():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for BACK TO MAIN MENU\n ")
    opt = int(input("Enter the option : "))

    if opt == 1:
        tab_sort()

    elif opt == 2:
        filter_tab()

    elif opt == 3:
        tab_compare()

    elif opt == 4:
        main_menu()

def function_menu_lap():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for BACK TO MAIN MENU\n ")
    opt = int(input("Enter the option : "))

    if opt == 1:
        lap_sort()

    elif opt == 2:

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```

        filter_lap()

    elif opt == 3:
        lap_compare()

    elif opt == 4:
        main_menu()

def function_menu_cam():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for BACK TO MAIN MENU\n ")
    opt = int(input("Enter the option : "))

    if opt == 1:
        cam_sort()

    elif opt == 2:
        filter_cam()

    elif opt == 3:
        cam_compare()

    elif opt == 4:
        main_menu()

def function_menu_tel():
    print("\nselect 1 for SORT ")
    print("select 2 for FILTER ")
    print("select 3 for COMPARE ")
    print("select 4 for BACK TO MAIN MENU\n ")
    opt = int(input("Enter the option : "))

    if opt == 1:
        tel_sort()

    elif opt == 2:
        filter_tel()

    elif opt == 3:
        tel_compare()

    elif opt == 4:
        main_menu()

def main_menu():

    print("\n***** MOBILE (1) *****")
    print("***** TABLET (2) *****")
    print("***** LAPTOP (3) *****")
    print("***** CAMERA (4) *****")
    print("***** TELEVISION(5) *****")
    print("***** NEW PRODUCTS (6) *****")
    print("***** EXIT (0) *****\n")

    cat = int(input(("Select Option : ")))

    if cat == 0:
        {
        }

    elif cat == 1:
        mobile()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':

```

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        function_menu_mob()
        ans = input("\nDo you wish to continue? (y/n) : ")

    elif cat == 2:
        tablet()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_tab()
            ans = input("\nDo you wish to continue? (y/n) : ")

    elif cat == 3:
        laptop()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_lap()
            ans = input("\nDo you wish to continue? (y/n) : ")

    elif cat == 4:
        camera()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_cam()
            ans = input("\nDo you wish to continue? (y/n) : ")

    elif cat == 5:
        television()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':
            function_menu_tel()
            ans = input("\nDo you wish to continue? (y/n) : ")

    elif cat == 6:
        disp_cat()
        ans = input("\nDo you wish to continue? (y/n) : ")
        while ans.lower() == 'y':
            main_menu()
            ans = input("\nDo you wish to continue? (y/n) : ")

    else:
        print("Wrong input")
        main_menu()

print("\n\n*****")
print("***** WELCOME TO COMPARE PRODUCT SYSTEM *****")
print("*****")

main_menu()

print("\n*****")
print("***** THANK YOU FOR VISITING COMPARE PRODUCT SYSTEM *****")
print("*****")

def regclear(self):
    self.entry.delete(0,END)
    self.entry2.delete(0,END)
    self.entry3.delete(0,END)
    self.entry4.delete(0,END)

def loginclear(self):
    self.email_txt.delete(0,END)
    self.password.delete(0,END)

root=Tk()
ob=App(root)
root.mainloop()

```