**PYTHON CODE**

**import** **os**

**import** **platform**

**import** **mysql.connector**

*#Establishing a connection with MySQL and creating the required tables*

myConnection=mysql.connector.connect(host="localhost",\

user="root",\

password="4814",\

database="stop\_and\_shop", \

use\_pure=True)

**print**(myConnection)

mycursor=myConnection.cursor()

mycursor.execute('CREATE TABLE IF NOT EXISTS employees(emp\_SNO int ,emp\_name varchar(30),emp\_dob date, emp\_gender varchar(2), emp\_zip int)')

mycursor.execute('CREATE TABLE IF NOT EXISTS customers(Cust\_name varchar(30), Cust\_email varchar(50), Cust\_gender varchar(2))')

mycursor.execute('CREATE TABLE IF NOT EXISTS departmental\_store(S\_no int, Items varchar(100), Item\_code varchar(100), price\_per\_item int, Quantity int , Discount int)')

mycursor.execute('CREATE TABLE IF NOT EXISTS orders(Sno int(2), item\_name varchar(30), Quantity int(4), Price float(10,2),Inventory varchar(30))')

*#Defining a function to Register Employee*

**def** RegisterEmployeeDetails():

 ED=[]

 empSNO=int(input("enter serial no"))

 ED.append(empSNO)

 empName=input("Enter Employee Name : ")

 ED.append(empName)

 empDOB=input("Enter Dob in YYYY-MM-DD Format : ")

 ED.append(empDOB)

 empGender=input("Enter employee's Gender : ")

 ED.append(empGender)

 empZipcode=input("Enter employee' zipcode : ")

 ED.append(empZipcode)

 employee=(ED)

 sql="insert into employees **\**

 (emp\_SNO,emp\_name,emp\_dob,emp\_gender,emp\_zip) values **\**

 (**%s**,**%s**,**%s**,**%s**,**%s**)"

 mycursor.execute(sql,employee)

 myConnection.commit()

**print**("You Have Been Succesfully Registered")

**print**(empName)

*#defining a function to View Employee Details*

**def** ViewEmployeeDetails():

     sql="select \* from employees"

     mycursor.execute(sql)

     res=mycursor.fetchall()

**print**("The Employee Details are as Follows")

**print**("(emp\_SNO,emp\_name,emp\_dob,emp\_gender,emp\_zip)")

**for** x **in** res:

**print**(x)

*#defining a function to Delete an Employee*

**def** DeleteEmployee():

    n1=input("Enter the SNO of the Employee to be deleted : ")

    sql="DELETE FROM employees WHERE emp\_SNO  = **%s**"

    mycursor.execute(sql %(n1))

    myConnection.commit()

**print**("Editing Done : ")

**print**("After correction the record is : ")

    sql="select \* from employees"

    mycursor.execute(sql)

    res=mycursor.fetchall()

**print**("The Employee Details are as Follows")

**print**("(emp\_SNO,emp\_name,emp\_dob,emp\_gender,emp\_zip)")

**for** x **in** res:

**print**(x)

*#defining a function to Register a new customer*

**def** RegisterCustomerDetails():

    CD=[]

    Cust\_name=input("Enter Customer Name to add : ")

    CD.append(Cust\_name)

    Cust\_email=input("Enter Customer email id : ")

    CD.append(Cust\_email)

    Cust\_gender=input("Enter Customer gender : ")

    CD.append(Cust\_gender)

    customer=(CD)

    sql="insert into customers (Cust\_name,Cust\_email,Cust\_gender) values (**%s**,**%s**,**%s**)"

    mycursor.execute(sql,customer)

    myConnection.commit()

*#defining a function to view customer details*

**def** ViewCustomersDetails():

**print**("Enter The Customer Name")

    custName=input("Enter the Customer name for the Customer to be viewed : ")

    sql="select \* from customers where Cust\_name like **%s**"

    rl=(custName,)

    mycursor.execute(sql,rl)

    res=mycursor.fetchall()

**if** res==None:

**print**("Record not Found . . . ")

**return**

**print**("The details of the customers are : " )

**print**("(Cust\_name,Cust\_email,Cust\_gender)")

**for** x **in** res:

**print**(x)

*#defining a function to add order*

**def** RegisterOrderDetails():

    OD=[]

    itemName=input("Enter Item Name to add : ")

    OD.append(itemName)

    itemQuantity=input("Enter Item Quantity : ")

    OD.append(itemQuantity)

    itemPrice=input("Enter Item Price : ")

    OD.append(itemPrice)

    inventoryDetail=input("Enter Inventory details : ")

    OD.append(inventoryDetail)

    order=(OD)

    sql="insert into orders (Item\_name,Quantity,Price,Inventory) values (**%s**,**%s**,**%s**,**%s**)"

    mycursor.execute(sql,order)

    myConnection.commit()

*#defining a function to view order details*

*# this includes viewing by different search options like search by item, qty etc*

**def** ViewOrderDetails():

**print**("Select the search criteria to View Order Details : ")

**print**("1. Item")

**print**("2. Quantity")

**print**("3. Price")

**print**("4. Inventory")

**print**("5. To View All Records")

    ch=int(input("Enter the choice : "))

**if** ch==1 :

        s=input("Enter Item Name to Be Searched For")

        rl=(s,)

        sql="select \* from orders where Item\_name like **%s**"

        mycursor.execute(sql,rl)

**elif** ch==2:

        s=input("Enter Quantity to Be Searched For")

        rl=(s,)

        sql="select \* from orders where Quantity = **%s**"

        mycursor.execute(sql,rl)

**elif** ch==3:

        s=input("Enter Price to Be Searched For")

        rl=(s,)

        sql="select \* from orders where Price=**%s**"

        mycursor.execute(sql,rl)

**elif** ch==4:

        s=input("Enter Inventory to Be Searched For")

        rl=(s,)

        sql="select \* from orders where Inventory like **%s**"

        mycursor.execute(sql,rl)

**elif** ch==5:

        sql="select \* from orders"

        mycursor.execute(sql)

    res=mycursor.fetchall()

**print**("The Order Details are as Follows")

**print**("(SNo,Item\_Name,Quantity,Price,Inventory)")

**for** x **in** res:

**print**(x)

*# a code for billing system defined as a function to access the bill counter*

**def** BillingSystem():

    k=0

**print**("welcome to STOP AND SHOP")

**while** k<1:

**print**()

**print**("WELCOME TO THE Billing system")

**print**()

**print**("1.To enter only one record in the database")

**print**("2.To enter mutiple records in the database")

**print**("3.To update the database")

**print**("4.To delete an item from the database")

**print**("5.To print the bill")

**print**("6.To delete the bill")

**print**("7.To exit the program")

        numo=int(input("Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: "))

**if** numo==1: *#To enter only one record in the database*

**print**("Enter the value in order of S.No, Items, Item Code, Price Per Item, Quantity and Discount")

            i=0

            row=[]

            elemento=["S.No","ITEM","ITEM CODE","PRICE PER ITEM","QUANTITY","DISCOUNT"]

**while** i<6:

**if** i!=1 **and** i!=2:

                    element=input("Enter the "+elemento[i])

**else**:

                    element=input("Enter the "+elemento[i])

                i+=1

                row.append(element)

            sql="INSERT INTO departmental\_store VALUES(**%s**,**%s**,**%s**,**%s**,**%s**,**%s**)"

            mycursor.execute(sql,row)

            myConnection.commit()

**elif** numo==2: *#To enter multiple records in the database*

            n=int(input("Enter the number of records you want to put "))

            j=1

**print**("Enter the value in order of S.No, Items, Item Code, Price Per Item, Quantity and Discount")

**while** j<n+1:

                i=0

                row=[]

                elemento=["S.No","ITEM","ITEM CODE","PRICE PER ITEM","QUANTITY","DISCOUNT"]

**while** i<6:

**if** i!=1 **and** i!=2:

                        element=input("Enter the "+elemento[i])

**else**:

                        element=input("Enter the "+elemento[i])

                    i+=1

                    row.append(element)

**print**()

                sql="INSERT INTO departmental\_store VALUES(**%s**,**%s**,**%s**,**%s**,**%s**,**%s**)"

                mycursor.execute(sql,row)

                myConnection.commit()

                j=j+1

**elif** numo==3: *#To update the database*

**print**()

**print**("1.To update the S.No")

**print**("2.To update the Item name")

**print**("3.To update the item code")

**print**("4.To update the Price Per Item")

**print**("5.To update the Quantity of the item")

**print**("6.To update the Discount on the items")

**print**()

            ent=int(input("Enter your choice 1/2/3/4/5/6 for what you want to update: "))

**if** ent==1: *#To update the S.no*

                n1=int(input("Enter the SNO you want to set"))

                n2=int(input("Enter the reference SNO you want to update"))

                sql="UPDATE departmental\_store SET S\_NO= **%s** WHERE S\_NO= **%s**"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("S.No updated successfully!")

**elif** ent==2: *#To update the Item name*

                n1=input("Enter the ITEM you want to set")

                n2=input("Enter the reference ITEM you want to update")

                sql="UPDATE departmental\_store SET ITEMS= **%s** WHERE ITEMS= **%s**"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("ITEM updated successfully!")

**elif** ent==3: *#To update the Item code*

                n1=input("Enter the ITEM CODE you want to set")

                n2=input("Enter the reference ITEM CODE you want to update")

                sql="UPDATE departmental\_store SET ITEM\_CODE= **%s** WHERE ITEM\_CODE= **%s**"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("ITEM\_CODE updated successfully!")

**elif** ent==4: *#To update the price per item*

                n1=input("Enter the Price per item you want to set: ")

                n2=input("Enter the reference Price Per Item you want to update: ")

                sql="UPDATE departmental\_store SET PRICE\_PER\_ITEM= **%s** WHERE PRICE\_PER\_ITEM= %S"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("PRICE\_PER\_ITEM updated successfully")

**elif** ent==5: *#To update the quantity of an item*

                n1=input("Enter the QUANTITY you want to set")

                n2=input("Enter the reference QUANTITY you want to update")

                sql="UPDATE departmental\_store SET QUANTITY= **%s** WHERE QUANTITY= **%s**"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("QUANTITY updated successfully!")

**elif** ent==6: *#To update the discount on an item*

                n1=input("Enter the DISCOUNT you want to set")

                n2=input("Enter the reference DISCOUNT you want to update")

                sql="UPDATE departmental\_store SET DISCOUNT= **%s** WHERE DISCOUNT= **%s**"

                mycursor.execute(sql,(n1,n2))

                myConnection.commit()

**print**("DISCOUNT updated successfully!")

**else**:

**print**("Incorrect input")

**elif** numo==4: *#To delete an item from the database*

**print**()

**print**("1.To delete an entry using S.NO as reference")

**print**("2.To delete an entry using ITEMS as reference")

**print**("3.To delete an entry using ITEMCODE as reference")

**print**("4.To delete an entry using PRICE as reference")

**print**("5.To delete an entry using QUANTITY as reference")

**print**("6.To delete an entry using DISCOUNT as reference")

**print**()

            entt=int(input("Enter your choice 1/2/3/4/5/6 to delete an entry: "))

**if** entt==1: *#To delete an entry by taking S.no as reference*

                n1=int(input("Enter the S.NO as reference"))

                sql="DELETE FROM departmental\_store WHERE S\_NO = **%s**"

                mycursor.execute(sql %(n1))

                myConnection.commit()

**elif** entt==2: *#To delete an entry by taking Item as reference*

                n1=input("Enter the ITEM as reference")

                sql="DELETE FROM departmental\_store WHERE ITEMS= **%s**"

                mycursor.execute(sql %(n1))

                myConnection.commit()

**elif** entt==3: *#To delete an entry by taking Itemcode as reference*

                n1=input("Enter the ITEMCODE as reference")

                sql="DELETE FROM departmental\_store WHERE ITEM\_CODE= **%s**"

                mycursor.execute(sql%(n1))

                myConnection.commit()

**elif** entt==4: *#To delete an entry by taking Price as reference*

                n1=int(input("Enter the PRICE as reference"))

                sql="DELETE FROM departmental\_store WHERE PRICE\_PER\_ITEM= **%s**"

                mycursor.execute(sql %(n1))

                myConnection.commit()

**elif** entt==5: *#To delete an entry by taking Quantity as reference*

                n1=int(input("Enter the QUANTITY as reference"))

                sql="DELETE FROM departmental\_store WHERE QUANTITY= **%s**"

                mycursor.execute(sql %(n1))

                myConnection.commit()

**elif** entt==6: *#To delete an entry by taking Discount as reference*

                n1=int(input("Enter the DISCOUNT as reference"))

                sql="DELETE FROM departmental\_store WHERE DISCOUNT= **%s**"

                mycursor.execute(sql %(n1))

                myConnection.commit()

**else**:

**print**("Incorrect input")

**elif** numo==5: *#To print the bill*

**import** **itertools**

            mycursor.execute("SELECT PRICE\_PER\_ITEM FROM departmental\_store")

            hello=[]

**for** m **in** mycursor:

                hello.append(m)

            hellos=[]

**for** mn **in** hello:

**for** hf **in** mn:

                    hellos.append(hf)

            mycursor.execute("SELECT QUANTITY FROM departmental\_store")

            hello1=[]

**for** m **in** mycursor:

                hello1.append(m)

            hellos2=[]

**for** mnh **in** hello1:

**for** hfg **in** mnh:

                    hellos2.append(hfg)

            mycursor.execute("SELECT DISCOUNT FROM departmental\_store")

            hello2=[]

**for** fg **in** mycursor:

                hello2.append(fg)

            hellos3=[]

**for** mng **in** hello2:

**for** hfh **in** mng:

                    hellos3.append(hfh)

*#print(hellos)*

*#print(hellos2)*

*#print(hellos3)*

            sums=0

**for** (v,y,hj) **in** zip (hellos,hellos2,hellos3):

                sums=sums+(v\*y-(v\*y\*hj/100))

**print**(sums)

            mycursor.execute("SELECT \* FROM departmental\_store")

            fields=[('S.NO',"ITEMS","ITEM CODE","PRICE PER ITEM","QUANTITY","DISCOUNT")]

            lis=[]

**for** i **in** mycursor:

                lis.append(i)

**for** j **in** lis:

                fields.append(j)

**def** BILL(fields):

                 output= " \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**\n**"

**for** item **in** fields[0]:

                     output+="|   " + str(item) + "   "

                 output+="**\n**|------------------------------------------------------------------------------------------"

**return** output

**print**(BILL(fields))

**for** item **in** lis:

**print**("|",item[0]," "\*(7-len(str(item[0]))),"|",

                item[1]," "\*(8-len(item[1])),"|",

                item[2]," "\*(12-len(item[2])),"|",

                item[3]," "\*(17-len(str(item[3]))),"|",

                item[4]," "\*(11-len(str(item[4]))),"|",

                item[5]," "\*(11-len(str(item[5]))),"|")

**print**("|------------------------------------------------------------------------------------------")

**print**("| TOTAL AMOUNT :",sums)

**print**("| (Inc. of all taxes)")

**print**("|")

**print**("|")

**print**("| Thank you for shopping from our store ")

**print**("|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_")

**elif** numo==6: *#To delete the whole bill*

            mycursor.execute("TRUNCATE TABLE departmental\_store")

            myConnection.commit()

**print**("Bill successfully deleted")

**elif** numo==7: *#To end the program*

            k+=1

**print**("Program is ended successfully")

**else**:

**print**("Invalid choice")

*# defining a main menu which'll pop up as soon as the code runs*

*# all the functions defined above are being called by a loop here.*

*#this will work as a menu driven program*

**def** MainMenu():

**print**("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

**print**("\*         WELCOME TO STOP AND SHOP          \*")

**print**("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

**print**("1 : To Register Employee")

**print**("2 : To View Employee Details ")

**print**("3 : To Delete Employee Record ")

**print**("4 : To Add Customers ")

**print**("5 : To View Customers")

**print**("6 : To Add Orders")

**print**("7 : To View Orders")

**print**("8 : To Go To Billing System")

**try**:

        userInput = int(input("Please Select An Above Option: "))

**except** **ValueError**:

        exit("You Had Entered Wrong Choice")

**else**:

**print**("**\n**")

**if**(userInput == 1):

            RegisterEmployeeDetails()

**elif** (userInput==2):

            ViewEmployeeDetails()

**elif** (userInput==3):

            DeleteEmployee()

**elif** (userInput==4):

            RegisterCustomerDetails()

**elif** (userInput==5):

            ViewCustomersDetails()

**elif** (userInput==6):

            RegisterOrderDetails()

**elif** (userInput==7):

            ViewOrderDetails()

**elif** (userInput==8):

            BillingSystem()

**else**:

**print**("Enter correct choice. . . ")

*#after the entire code runs this'll ask that to run it again or exit*

MainMenu()

**def** AskChoiceAgain():

    AksChcRun = input("**\n**Want To Run Again Y/n: ")

**while**(AksChcRun.lower() == 'y'):

**if**(platform.system() == 'darwin'):

**print**(os.system('cls'))

**else**:

**print**(os.system('clear'))

        MainMenu()

        AksChcRun = input("**\n**Want To Run Again Y/n: ")

AskChoiceAgain()