PROJECT FILE

Submitted by

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CERTIFICATE

This is to certify that **Sahil Zombade** , a student of class **XII** has successfully completed the project **Departmental Store Management System** during the academic year 2020-21 in partial fulfilment of **COMPUTER SCIENCE** practical examination conducted by **All India Senior School Certificate Examination, New Delhi, India.**

Signature

Name of External Examiner

Signature

Name of Internal Examiner

ACKNOWLEDGEMENT

The successful completion of this project would not have been possible without mentioning the names of those who helped me make it possible. I take this opportunity to express my gratitude in a few words and respect to all those who helped me in the completion of this project.

Primarily I would like to thank the principal of my school **Mrs. Yakshi Gulati** for allowing me to work on this project.

It is my humble pleasure to acknowledge a deep sense of gratitude to our Computer Science Teacher **Mr. D James Thangamani**, whose valuable guidance has been the ones that helped me patch this project and make it full proof success. His suggestions and instructions have served as the major contributor towards the completion of the project.

Then I would like to thank my parents and friends who have helped me with their valuable suggestions. Their guidance has been very helpful in various phases of the completion of the project

Last but not the least, I would like to thank CBSE for giving us the opportunity to undertake the project.

Sahil Zombade

Departmental Store Management System

Abstract

The purpose of the Departmental Store Management System (DSMS) is to automate the existing manual system by the help of computerized equipment and full-fledged computer software , fulfilling their requirements , so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same.

Department Store Management System , as described above can lead to error free, secure , reliable , easy to access and a fast management system. It will help the organization in better utilization of resources. The organization can maintain computerized records and access them without being disturbed by irrelevant information.

The project is successful in performing most of the tasks that are required to function a departmental store. The project includes a billing system where the orders can be manually entered and a bill is generated for the customer which includes tax and the detailed information about the shopping summary. The organization can keep a track of their customers and add new customers. Whenever needed they can look up for a specific customer by putting in some reference. Moreover The Project is successful in keeping a track about all the employees working in the store, the information can be altered, deleted or viewed even for a specific worker. The user can keep an account of the Stock of goods available at the store and can manage things manually.

The aim is to create a single software which can do most of the required tasks of a departmental store. Basically the project describes how to manage data in an efficient manner and access it whenever needed. Additionally it also provides a manual billing system which can be used to obtain a computer generated bill.

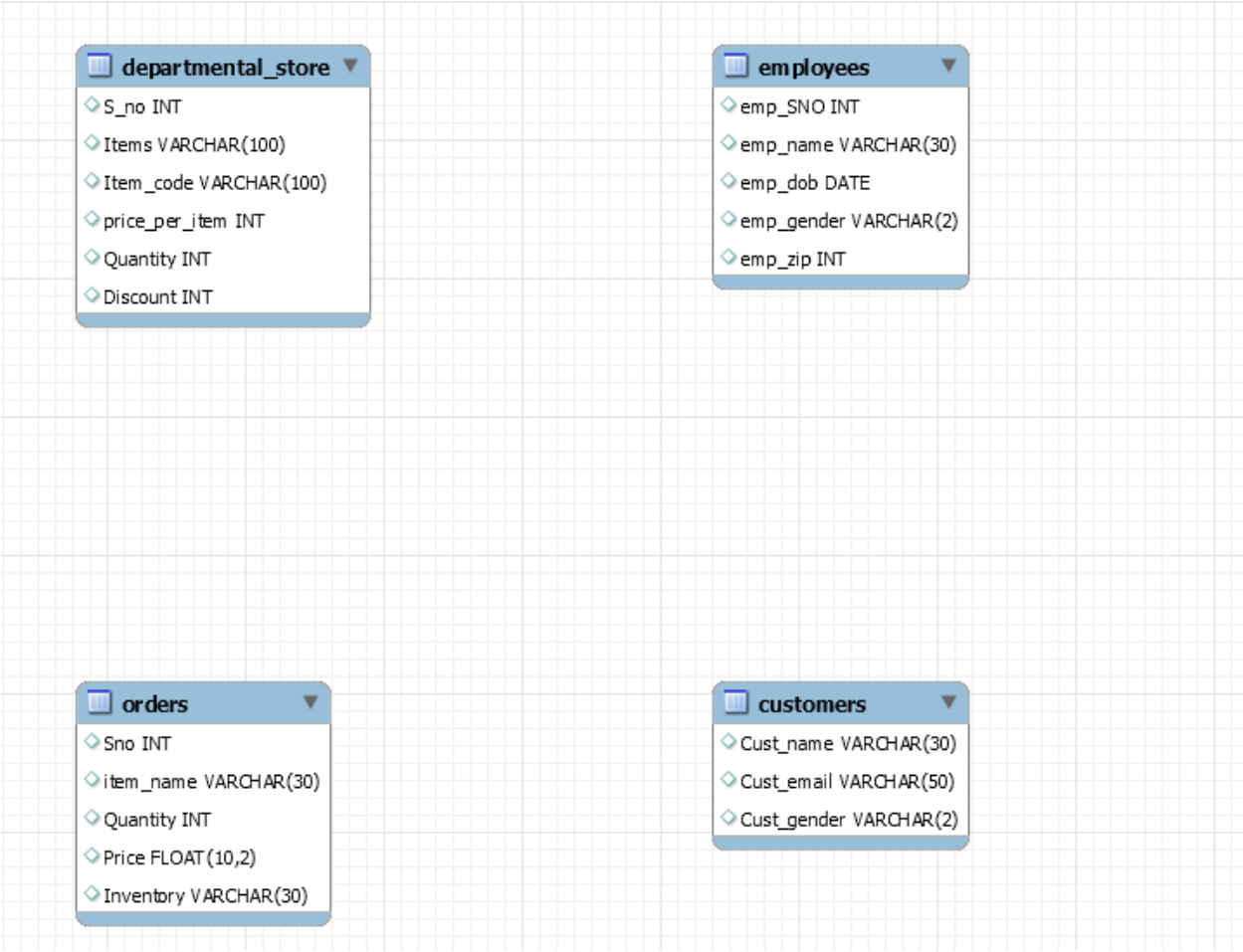
INTRODUCTION

The Departmental Store Management system is to generalize and simplify the monthly or day to day activities of Departmental stores. The main objective of the python project on the Departmental Store Management System is to manage the details of the employees , customers , products and inventory and generate/modify bills. The project is totally built at the administrative end and thus only the administrator is guaranteed the access.

Functionalities provided by the Departmental Store Management System are as follows:

- Provides the searching facilities based on various factors such as price, quantity, inventory and item
- Manages the records about the employees working as well as the customers.
- Integration of all records of products with inventory details
- Printing and performing basic operations required to generate/alter a bill by manually entering in the product details.

Entity Relationship Diagram



Python Modules

os : The OS module in python provides functions for interacting with the operating system. OS, comes under Python's standard utility modules.

Platform : The platform module in python is used to access the underlying platfom's data, such as, hardware, operating system, and interpreter version information. system, and interpreter version information where the program is running.

Mysql.connector : The mysql connector in python helps establish a connection between python and mysql. It enables python programs to access and alter MySQL databases.

Itertools : Python's itertools is a module that provides various functions that work on iterators to produce complex iterators. This module works as a fast, memory efficient tool that is used either by themselves or in combination to form iterator algebra

Functions Defined

RegisterEmployeeDetails : a function to register employees in the database.

ViewEmployeeDetails : a function to print details of Employees registered in the database.

DeleteEmployee : a function to delete the information of an Employee from the database.

RegisterCustomerDetails : a function to register details of new customers in the database.

ViewCustomersDetails : a function to print information of Customers registered in the database

RegisterOrderDetails : a function to add orders in the database.

ViewOrderDetails : a function to print the order details by asking for the item name.

BillingSystem: a function that includes all the programs and runs the billing system when called.

BILL : a function that prints the receipt of the bill in with proper format

MainMenu: a function which holds the main menu of the program from where different functions can be called as per the requirement.

AskChoiceAgain : a function which asks to either run the entire code again or exit the program.

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)
```

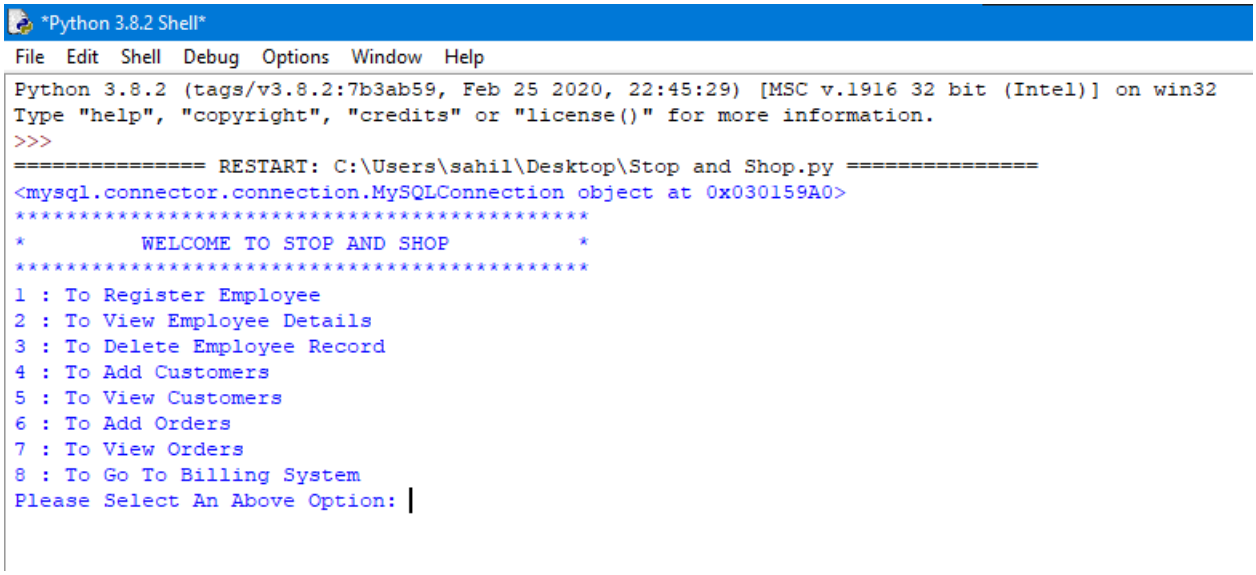
```
        def BILL(fields):
            output= "
_____\n"
            for item in fields[0]:

                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()
```

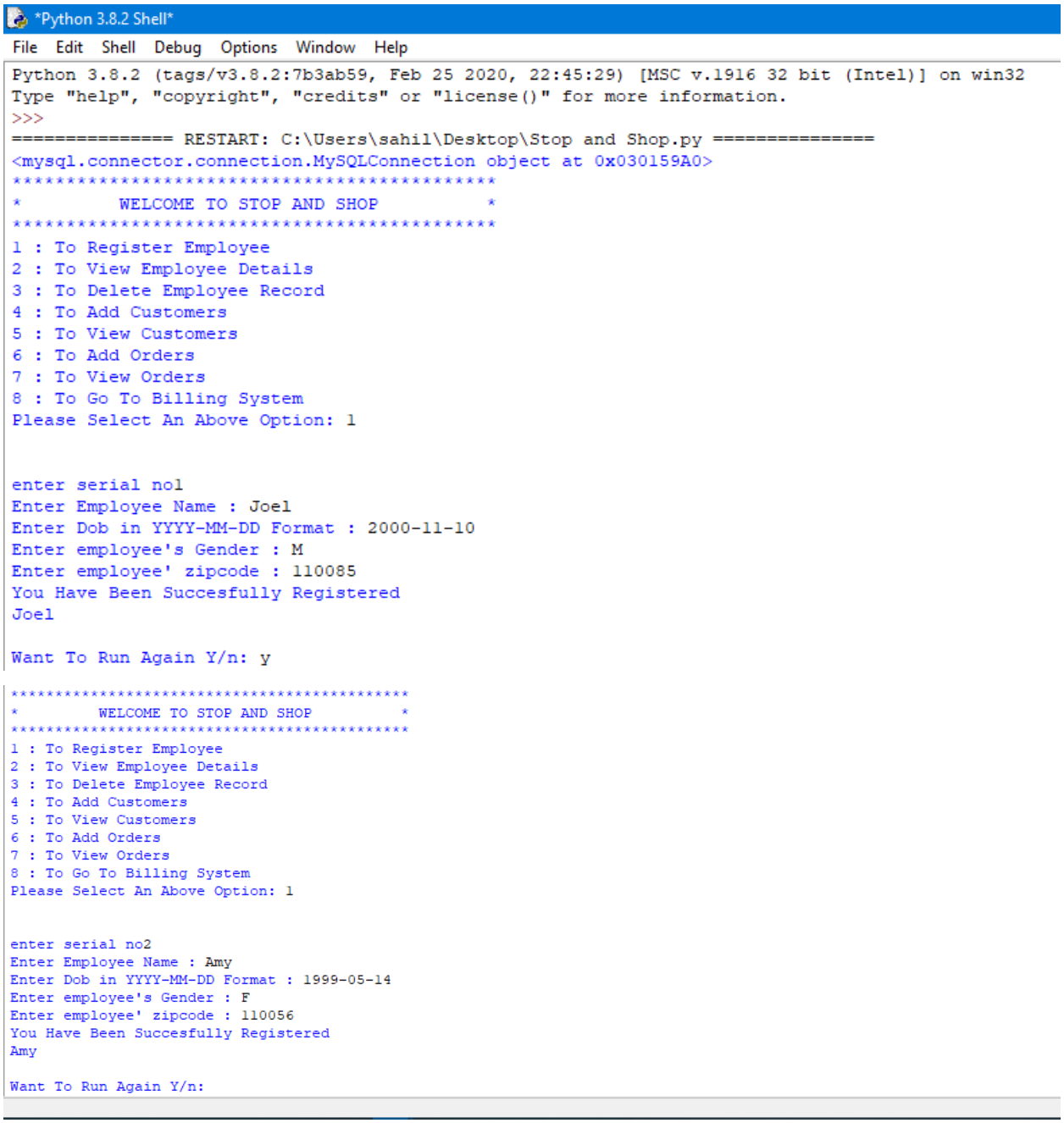
```
        elif (userInput==2):
            ViewEmployeeDetails()
        elif (userInput==3):
            DeleteEmployee()
        elif (userInput==4):
            RegisterCustomerDetails()
        elif (userInput==5):
            ViewCustomersDetails()
        elif (userInput==6):
            RegisterOrderDetails()
        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("\nWant 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("\nWant To Run Again Y/n: ")
AskChoiceAgain()
```

OUTPUT

Main menu:



Registering Employees:



```
*********************************************
*         WELCOME TO STOP AND SHOP          *
*********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 1


enter serial no3
Enter Employee Name : abu
Enter Dob in YYYY-MM-DD Format : 1990-11-11
Enter employee's Gender : M
Enter employee' zipcode : 001156
You Have Been Succesfully Registered
abu

Want To Run Again Y/n:
```

Viewing Employee details:

```
Want To Run Again Y/n: y
1
*********************************************
*         WELCOME TO STOP AND SHOP          *
*********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 2


The Employee Details are as Follows
(emp_SNO,emp_name,emp_dob,emp_gender,emp_zip)
(1, 'Joel', datetime.date(2000, 11, 10), 'M', 110085)
(2, 'Amy', datetime.date(1999, 5, 14), 'F', 110056)
(3, 'abu', datetime.date(1990, 11, 11), 'M', 1156)

Want To Run Again Y/n: y
```

Deleting Employee Record:

```
*********************************************
*          WELCOME TO STOP AND SHOP          *
*********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 3


Enter the SNO of the Employee to be deleted : 3
Editing Done :
After correction the record is :
The Employee Details are as Follows
(emp_SNO,emp_name,emp_dob,emp_gender,emp_zip)
(1, 'Joel', datetime.date(2000, 11, 10), 'M', 110085)
(2, 'Amy', datetime.date(1999, 5, 14), 'F', 110056)
```

Adding Customers:

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\sahil\Desktop\Stop and Shop.py ==========
<mysql.connector.connection.MySQLConnection object at 0x031959A0>
*********************************************
*         WELCOME TO STOP AND SHOP          *
*********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 4


Enter Customer Name to add : Sahil
Enter Customer email id : sahilxxxx@gmail.com
Enter Customer gender : M

Want To Run Again Y/n: y
```

```
**********************************************
*          WELCOME TO STOP AND SHOP          *
**********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 4


Enter Customer Name to add : bani
Enter Customer email id : banixxxx@gmail.com
Enter Customer gender : F

Want To Run Again Y/n: y
```

Viewing Customer Details:

```
**********************************************
*          WELCOME TO STOP AND SHOP          *
**********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 5


Enter The Customer Name
Enter the Customer name for the Customer to be viewed : sahil
The details of the customers are :
(Cust_name,Cust_email,Cust_gender)
('Sahil', 'sahilxxxx@gmail.com', 'M')

Want To Run Again Y/n: y
```

Adding orders:

```
**********************************************
*         WELCOME TO STOP AND SHOP           *
**********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 6


Enter Item Name to add : Chocolates
Enter Item Quantity : 500
Enter Item Price : 10000
Enter Inventory details : sweet

Want To Run Again Y/n: y
```

```
**********************************************
*         WELCOME TO STOP AND SHOP           *
**********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 6


Enter Item Name to add : detol
Enter Item Quantity : 50
Enter Item Price : 5000
Enter Inventory details : handwash

Want To Run Again Y/n: y
```

Viewing orders:

```
*******************************************
*         WELCOME TO STOP AND SHOP          *
*******************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice :
```

Viewing by item:

```
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice : 1
Enter Item Name to Be Searched Fordetol
The Order Details are as Follows
(SNo,Item_Name,Quantity,Price,Inventory)
(None, 'detol', 50, 5000.0, 'handwash')

Want To Run Again Y/n:
```

Viewing by quantity:

```
*********************************************
*         WELCOME TO STOP AND SHOP          *
*********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice : 2
Enter Quantity to Be Searched For50
The Order Details are as Follows
(SNo,Item_Name,Quantity,Price,Inventory)
(None, 'detol', 50, 5000.0, 'handwash')

Want To Run Again Y/n:
```

Viewing by price:

```
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice : 3
Enter Price to Be Searched For10000
The Order Details are as Follows
(SNo,Item_Name,Quantity,Price,Inventory)
(None, 'Chocolates', 500, 10000.0, 'sweet')

Want To Run Again Y/n:
```

Viewing by inventory:

```
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice : 4
Enter Inventory to Be Searched Forsweet
The Order Details are as Follows
(SNo,Item_Name,Quantity,Price,Inventory)
(None, 'Chocolates', 500, 10000.0, 'sweet')
```

Viewing all orders:

```
Please Select An Above Option: 7


Select the search criteria to View Order Details :
1. Item
2. Quantity
3. Price
4. Inventory
5. To View All Records
Enter the choice : 5
The Order Details are as Follows
(SNo,Item_Name,Quantity,Price,Inventory)
(None, 'Chocolates', 500, 10000.0, 'sweet')
(None, 'detol', 50, 5000.0, 'handwash')

Want To Run Again Y/n:
```

Billing system:

```
Please Select An Above Option: 8


welcome to STOP AND SHOP

WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform:
```

Adding single item in bill:

```
Please Select An Above Option: 8


welcome to STOP AND SHOP

WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 1
Enter the value in order of S.No, Items, Item Code, Price Per Item, Quantity and Discount
Enter the S.No1
Enter the ITEMchips
Enter the ITEM CODE0001
Enter the PRICE PER ITEM35
Enter the QUANTITY3
Enter the DISCOUNT5


WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
99.75
 _____________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT
|-------------------------------------------------------------------------------------
| 1        | chips     | 0001          | 35                 | 3            | 5            |
|-------------------------------------------------------------------------------------
| TOTAL AMOUNT : 99.75
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________
```

Adding multiple items in bill:

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 2
Enter the number of records you want to put 2
Enter the value in order of S.No, Items, Item Code, Price Per Item, Quantity and Discount
Enter the S.No2
Enter the ITEMdetol
Enter the ITEM CODE0002
Enter the PRICE PER ITEM170
Enter the QUANTITY1
Enter the DISCOUNT10

Enter the S.No3
Enter the ITEMchocolate
Enter the ITEM CODE0003
Enter the PRICE PER ITEM150
Enter the QUANTITY2
Enter the DISCOUNT5


WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform:
```

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
537.75
 _____________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT    |
|-------------------------------------------------------------------------------------|
| 1        | chips     | 0001          | 35                 | 3            | 5             |
| 2        | detol     | 0002          | 170                | 1            | 10            |
| 3        | chocolate  | 0003          | 150                | 2            | 5             |
|-------------------------------------------------------------------------------------|
| TOTAL AMOUNT : 537.75
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________
```

To update the bill:

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update:
```

Updating S.no:

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update: 1
Enter the SNO you want to set4
Enter the reference SNO you want to update3
S.No updated successfully!
```

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
537.75
 _____________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT
|-------------------------------------------------------------------------------------
| 1        | chips     | 0001          | 35                 | 3            | 5            |
| 2        | detol     | 0002          | 170                | 1            | 10           |
| 4        | chocolate  | 0003          | 150                | 2            | 5            |
|-------------------------------------------------------------------------------------
| TOTAL AMOUNT : 537.75
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________
```

To update item name:

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update: 2
Enter the ITEM you want to setmilk
Enter the reference ITEM you want to updatechocolate
ITEM updated successfully!
```

To update item code:

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update: 3
Enter the ITEM CODE you want to set0004
Enter the reference ITEM CODE you want to update0003
ITEM_CODE updated successfully!
```

To update quantity:

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update: 5
Enter the QUANTITY you want to set4
Enter the reference QUANTITY you want to update3
QUANTITY updated successfully!
```

To update discount:

```
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 3

1.To update the S.No
2.To update the Item name
3.To update the item code
4.To update the Price Per Item
5.To update the Quantity of the item
6.To update the Discount on the items

Enter your choice 1/2/3/4/5/6 for what you want to update: 6
Enter the DISCOUNT you want to set15
Enter the reference DISCOUNT you want to update10
DISCOUNT updated successfully!
```

(after the following changes, new bill would look like)

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
562.5
 _____________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT
|-------------------------------------------------------------------------------------
| 1        | chips     | 0001          | 35                 | 4            | 5           |
| 2        | detol     | 0002          | 170                | 1            | 15          |
| 4        | milk      | 0004          | 150                | 2            | 5           |
|-------------------------------------------------------------------------------------
| TOTAL AMOUNT : 562.5
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________
```

To delete an item from the bill:

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 4

1.To delete an entry using S.NO as reference
2.To delete an entry using ITEMS as reference
3.To delete an entry using ITEMCODE as reference
4.To delete an entry using PRICE as reference
5.To delete an entry using QUANTITY as reference
6.To delete an entry using DISCOUNT as reference

Enter your choice 1/2/3/4/5/6 to delete an entry:
```

Deleting using Sno:

```
1.To delete an entry using S.NO as reference
2.To delete an entry using ITEMS as reference
3.To delete an entry using ITEMCODE as reference
4.To delete an entry using PRICE as reference
5.To delete an entry using QUANTITY as reference
6.To delete an entry using DISCOUNT as reference

Enter your choice 1/2/3/4/5/6 to delete an entry: 1
Enter the S.NO as reference4
```

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
277.5
 _____________________________________________________________________________________________
|   S.NO    |    ITEMS    |    ITEM CODE    |    PRICE PER ITEM    |    QUANTITY    |    DISCOUNT    |
|-------------------------------------------------------------------------------------------------
| 1         | chips       | 0001            | 35                   | 4              | 5              |
| 2         | detol       | 0002            | 170                  | 1              | 15             |
|-------------------------------------------------------------------------------------------------
| TOTAL AMOUNT : 277.5
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________________
```

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 2
Enter the number of records you want to put 2
Enter the value in order of S.No, Items, Item Code, Price Per Item, Quantity and Discount
Enter the S.No1
Enter the ITEMcola
Enter the ITEM CODE0001
Enter the PRICE PER ITEM75
Enter the QUANTITY2
Enter the DISCOUNT2

Enter the S.No2
Enter the ITEMsoda
Enter the ITEM CODE0002
Enter the PRICE PER ITEM35
Enter the QUANTITY3
Enter the DISCOUNT5
```

Deleting using item code:

```
1.To delete an entry using S.NO as reference
2.To delete an entry using ITEMS as reference
3.To delete an entry using ITEMCODE as reference
4.To delete an entry using PRICE as reference
5.To delete an entry using QUANTITY as reference
6.To delete an entry using DISCOUNT as reference

Enter your choice 1/2/3/4/5/6 to delete an entry: 3
Enter the ITEMCODE as reference0002
```

To delete using quantity:

```
1.To delete an entry using S.NO as reference
2.To delete an entry using ITEMS as reference
3.To delete an entry using ITEMCODE as reference
4.To delete an entry using PRICE as reference
5.To delete an entry using QUANTITY as reference
6.To delete an entry using DISCOUNT as reference

Enter your choice 1/2/3/4/5/6 to delete an entry: 5
Enter the QUANTITY as reference2

WELCOME TO THE Billing system
```

Printing the updated bill:

```
welcome to STOP AND SHOP

WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
0
 _____________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT
|-------------------------------------------------------------------------------------
|-------------------------------------------------------------------------------------
| TOTAL AMOUNT : 0
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________

WELCOME TO THE Billing system
```

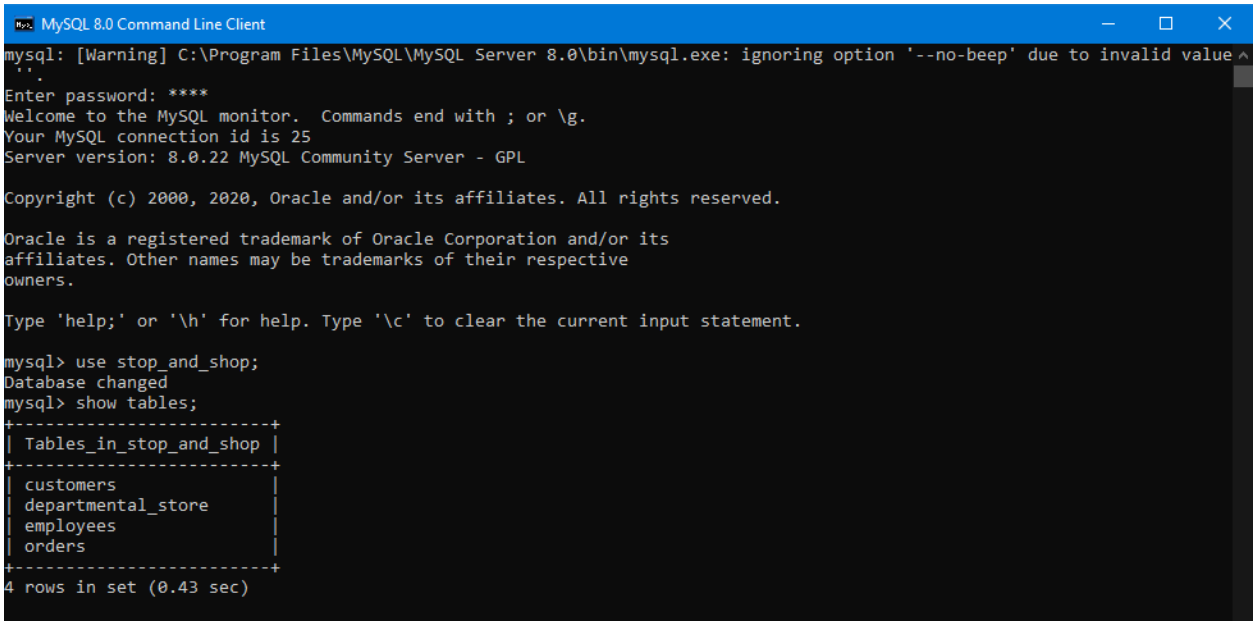
To delete the entire bill:

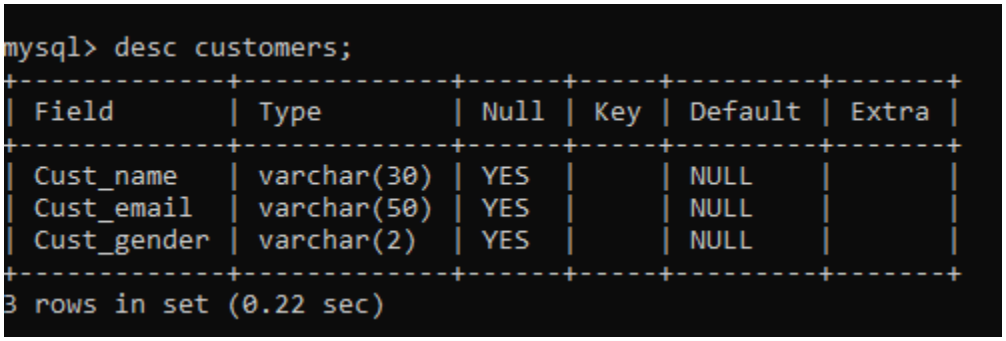
```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 6
Bill successfully deleted

WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 5
0
 _____________________________________________________________________________________________
|   S.NO   |   ITEMS   |   ITEM CODE   |   PRICE PER ITEM   |   QUANTITY   |   DISCOUNT
|---------------------------------------------------------------------------------------------
|---------------------------------------------------------------------------------------------
| TOTAL AMOUNT : 0
| (Inc. of all taxes)
|
|
| Thank you for shopping from our store
|_____________________________________________________________________________________________
```

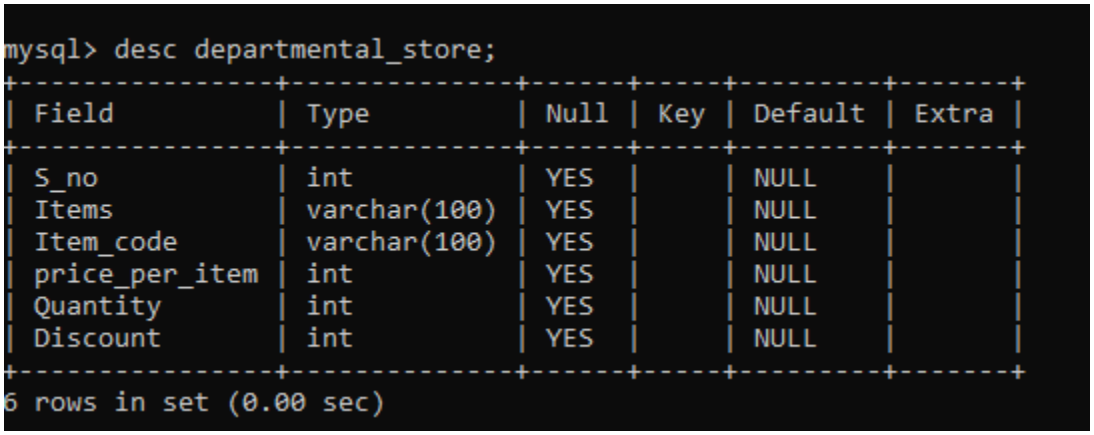
To exit the billing system:

```
WELCOME TO THE Billing system

1.To enter only one record in the database
2.To enter mutiple records in the database
3.To update the database
4.To delete an item from the database
5.To print the bill
6.To delete the bill
7.To exit the program
Enter your choice 1/2/3/4/5/6/7 according to the task you want to perform: 7
Program is ended successfully

Want To Run Again Y/n: y
1
***********************************************
*          WELCOME TO STOP AND SHOP           *
***********************************************
1 : To Register Employee
2 : To View Employee Details
3 : To Delete Employee Record
4 : To Add Customers
5 : To View Customers
6 : To Add Orders
7 : To View Orders
8 : To Go To Billing System
Please Select An Above Option:
```

MySQL Tables created by the code:







```
mysql> desc employees;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| emp_SNO    | int         | YES  |     | NULL    |       |
| emp_name   | varchar(30) | YES  |     | NULL    |       |
| emp_dob    | date        | YES  |     | NULL    |       |
| emp_gender | varchar(2)  | YES  |     | NULL    |       |
| emp_zip    | int         | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
5 rows in set (0.04 sec)
```

```
mysql> desc orders;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| Sno       | int         | YES  |     | NULL    |       |
| item_name | varchar(30) | YES  |     | NULL    |       |
| Quantity  | int         | YES  |     | NULL    |       |
| Price     | float(10,2) | YES  |     | NULL    |       |
| Inventory | varchar(30) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

GLOSSARY

- **Connectivity :** Establishing a connection between 2 or more different softwares in order to collaborate data.

- **Data Accessing :** A user's ability to access or retrieve data stored within a database

- **Database :** A structured set of data held in a system , especially one that is accessible in various ways.

- **Data Manipulation :** A processing of adjusting/altering the data to make it organized and easier to comprehend.

- **E.R. Diagram :** An entity relationship model describes interrelated things of interest in a specific domain of knowledge.

- **Function :** A function is a block of code which only runs when it is called. One can pass data , known as parameters , into a function. A function can return data as a result.

- **Management System :** A Complex program that can be used by an organization to achieve its objective.

- **Program :** a series of coded software instructions to control the operation of a computer or other system.

- **Python Modules :** modules refer to a file containing Python statement code.

- **Reports Generated :** Outputs of all the functions that a program can perform without any errors.

- **User Defined Functions :** Functions which are defined by the user so that they can be called in future when needed.

- **Variable :** Variables are containers for storing data values, a variable is created the moment you first assign a value to it.

Bibliography

1. www.w3schools.com
2. www.python.org
3. www.stackoverflow.com
4. www.mysql.com
5. www.tutorialspoint.com
6. www.geeksforgeeks.com
7. www.youtube.com