COMPUTER PROJECT CLASS 12

Software name-

"PARAMAK Mall Sales-cum-Database Management Software"

By – Gaurang Dixit

Class – XII Sc A

Roll Number – _____

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PROJECT INTRODUCTION

This software was designed for the computer science project of class XII (CBSE). This software is meant to be used at the billing counters at a mall or any other retail store and also by the head or admin of that place to get an overall view of the sales and to perform some important functions.

This is a software which is a multi-purpose which serves as an efficient billing system and at the same time creates a database of the same for further applications.

SYSTEM REQUIREMENTS

Recommended System Requirements

- Processors:Intel® Core™ i5 processor 4300M at 2.60 GHz or 2.59 GHz (1 socket, 2 cores, 2 threads per core), 8 GB of DRAMIntel® Xeon® processor E5-2698 v3 at 2.30 GHz (2 sockets, 16 cores each, 1 thread per core), 64 GB of DRAMIntel® Xeon Phi™ processor 7210 at 1.30 GHz (1 socket, 64 cores, 4 threads per core), 32 GB of DRAM, 16 GB of MCDRAM (flat mode enabled)
- Disk space: 2 to 3 GB
- Operating systems: Windows® 10, macOS*, and Linux*

Minimum System Requirements

- Processors: Intel Atom® processor or Intel® Core™ i3 processor
- Disk space: 1 GB
- Operating systems: Windows* 7 or later, macOS, and Linux
- Python* versions: 2.7.X, 3.6.X

Pre-requisites

Pre-requisites

A csv file named "customers" with the fields 'id', 'name', 'number' and 'email' in the cells A1, A2, A3 and A4 respectively. It will be stored in the same folder as the program file.

Note- Currently available usernames and passwords (these can be altered as per the customer's requirement) are-

1. sales1@abcmall.com (password= sales1)
2. sales2@abcmall.com (password= sales2)
3. sales3@abcmall.com (password= sales3)
4. admin@abcmall.com(password=admin123)

Modules Used and Functions Used

Modules Used

1 csv- Used to perform read and write operations on a csv file which stores customer details.
2 pickle- Used to perform read and write operations on a binary file which contains data regarding the items bought by a customer.

Functions Used

1 csv_reader()- Used to open and read the data of the 'customers.csv' file which stores details of all customers. It returns the number of customers in the file, the list of all keys and the last key of the list.
2 bin_reader()- Used to open and read the details of the binary files which store details of the items bought by a customer. It returns a list of all records in the binary file.

Salient Features

- Password protected.
- An extensive admin menu.
- Uses a binary file to store a great part of data. Hence the processing speeds are very high and file sizes are low.
- Option to modify or edit the records of a customer in admin menu.
- Program can work even if 'items.bin' file is not created.
- Unique feature to edit bills after entering the whole bill.
- All choices for the main menus are taken as strings. So even if someone enters an invalid option program will not crash and keep on running.
- Additional important checks like check for overwriting an item already in the bill, extensive checking of phone number, etc.

Implementation (Code)

```
#usernames allowed-
    #1. sales1@abcmall.com (password= sales1)
    #2. sales2@abcmall.com (password= sales2)
    #3. sales3@abcmall.com (password= sales3)

#admin-
    #username= admin@abcmall.com
    #password= admin123

#-------------------------------------------------------------------------#

#Variables section

usernames={'sales1@abcmall.com':'sales1','sales2@abcmall.com':'sales2','sales3@abcmall.com':'sales3'}
admin_username={'admin@abcmall.com':'admin123'}
wish=True

#-------------------------------------------------------------------------#

#Importing modules

import csv
import pickle
#-----------------------------------------------------------------#

# Functions

def csv_reader():

    f=open('customers.csv','r')
```

```
    reader=csv.DictReader(f)
    count=0
    key_list=[]

    for i in reader:
        key=int(i['id'])
        key_list.append(key)
        count+=1

    if (count==0):  #for checking if the file is empty or not
        last_key=100

    else:
        last_key=key
        pass

    f.close()

    return count,key_list,last_key



def bin_reader(b):

    g=open(b,'rb')
    reader2=[]

    try:
        while True:
            a=pickle.load(g)
            reader2.append(a)
    except:
        g.close()

    return reader2
```

```
#-----------------------------------------------------------------------#

                        #Main Program

print("**--------PARAMAK Mall Sales-cum-Database Management Software--------**")
print('\n \n',end='')

while wish:

    #login part starts-----------------------------------------
    print("*----------------------Main Menu----------------------*")
    print("Enter 1 to login for salesperson section.")
    print("Enter 2 to login for admin section.")
    print("Enter 3 to exit.")
    print('\n',end='')
    choice=input("Enter your choice:")

    if (choice=='1' or choice=='2' ):

        for i in range(0,3): #Username part
            username=input("Enter your username(Max. 3 tries):")

            if ((username in usernames and choice=='1') or (username in admin_username and choice=='2')):
                break

            else:
                print("Wrong username!")
                continue

        else:  #this part will execute only if loop ends normally or all tries are over

            print('\n',end='')
            print("Your tries are over.")
            ask=input("Do you want to again continue the main program(y/n)?")
```

```
        if(ask in ['y','Y','yes']):
            wish=True
            print('\n',end='')
            continue
        else:
            wish=False
            print("Exiting....")
            break


    for i in range(0,3): #password part

        print('\n',end='')
        password=input("Enter your password(Max. 3 tries):")

        if (choice=='1' and (username in usernames) and password==usernames[username]):
            break

        elif (choice=='2' and (password==admin_username['admin@abcmall.com']) and
username=='admin@abcmall.com'):
            break

        else:
            print("Wrong password!")
            continue

    else:  #this part will execute only if loop ends normally or all tries are over

        print('\n',end='')
        print("Your tries are over.")
        ask=input("Do you want to again continue the main program(y/n)?")

        if(ask in ['y','Y','yes']):
            wish=True
            print('\n',end='')
```

```
            continue
        else:
            wish=False
            print("Exiting....")
            break

elif(choice=='3'):
    print("Exiting....")
    print('------------------------------*-----------------------------------')
    break

else:
    print('\n',end='')
    print("You have entered wrong option.")

    print('\n',end='')
    ask=input("Do you want to again continue the main program(y/n)?")

    if(ask in ['y','Y','yes']):
        wish=True
        print('\n',end='')
        continue
    else:
        wish=False
        print("Exiting....")
        break



#login part over--------------------------------------#

#salesperson section----------------------------------#

if(username in usernames):
```

```
print('\n',end='')
print('------------------------------*----------------------------------')
print("Welcome Salesperson.")

#checking for last key so as to continue from there
#also making a list of all keys

count_key,key_list,key=csv_reader()

#last key checking over

f=open('customers.csv','a+')
writer=csv.DictWriter(f,fieldnames=['id','name','number','email'],lineterminator='\n')

ask_new=input("Enter customer id(if any) or else enter 0:")

if(ask_new.isdigit()):

    ask_new=int(ask_new)

    if(ask_new==0):

        key=key+1

        print('\n',end='')
        name=input("Enter name:")

        for i in range(0,3):
            number=input("Enter contact number(Max. 3 tries):")

            if(number.isdigit() and len(number)==10):
                break
            else:
                print("Invalid number!")
                continue
```

```
    else: #this part will execute only if loop ends normally or all tries are over

        print('\n',end='')
        print("Your tries are over.")
        print('\n',end='')
        ask=input("Do you want to again continue the main program(y/n)?")

        if(ask in ['y','Y','yes']):
            wish=True
            continue
        else:
            wish=False
            break

    email=input("Enter email id:")



    writer.writerow({'id':key,'name':name,'number':number,'email':email})

    f.close()

elif( ask_new in key_list):

    key=ask_new
    print("Key is valid.Moving to billing section.")

else:
    print('\n',end='')
    print("Entered id is not valid.")

    print('\n',end='')
    ask=input("Do you want to again continue the main program(y/n)?")

    if(ask in ['y','Y','yes']):
```

```
            wish=True
            continue
        else:
            wish=False
            break

else:
    print('\n',end='')
    print("Invalid input")

    print('\n',end='')
    ask=input("Do you want to again continue the main program(y/n)?")

    if(ask in ['y','Y','yes']):
        wish=True
        continue
    else:
        wish=False
        break


    #customer details section over----------

    #customer items section start--------------------------


f=open("items.bin",'ab')
cart=True #for items adding
item={}
price=[] #list containing quantity,cost per piece and total price per product
print('\n')
print('------------------------------*----------------------------------')
print("Billing starts.")

while cart:
```

```
print('\n',end='')
product=input("Enter product name:")
cost=float(input("Enter product price (per item or per (kg or L)):"))
quantity=float(input("Enter number of pieces (or kg or L):"))
print('\n')

#checking for cost=0----------

if (cost<=0):
    print("Product price cannot be less than or equal to 0. Try again....")
    print('\n',end='')
    continue

# checking over----------

# checking for same product given again----------

if (product in item):
    print("This item is already listed once.")
    print("If you continue this new value will overwrite the previous one.")
    print('\n',end='')
    ask_product=input("Do you want to continue(y/n):")
    print('\n',end='')

    if (ask_product in ['y','Y','yes']):
        pass
    else:
        print("Reiterating....")
        print('\n',end='')
        continue

#checking over----------

price=[quantity,cost,(quantity*cost)]
```

```
    item[product]=price

    print('\n',end='')
    ask_item=input("Do you want to add 1 more item(y/n)?")

    if(ask_item=='y'):
        cart=True
        continue
    else:
        cart=False
        break


#correcting records if entered wrong----------
wish_correction=True

print('\n',end='')
ask_correction=input("Do you wish to delete or modify any item(y/n)?")

while wish_correction:

    if (ask_correction in ['y','Y','yes'] and len(item)!=0):
        print('\n',end='')
        print("Enter 1 to modify a product.")
        print("Enter 2 to delete a product.")
        print("Enter 3 to exit.")

        choice_correction=input("Enter your choice:")
        print('\n',end='')

        if (choice_correction=='1'):
            item_name=input("Enter product name:")

            for i in item:
```

```
if (i==item_name):
    print('\n',end='')
    product=input("Enter new product name:")
    cost=float(input("Enter product price (per item or per (kg or L)):"))
    quantity=float(input("Enter number of pieces (or Kg or L):"))
    print('\n',end='')

    #checking for cost=0----------

    if (cost<=0):
        print("Product price cannot be less than or equal to 0. Try again....")
        print('\n',end='')
        break

    # checking over----------

    del item[i] #storing return value of pop function

    # checking for same product given again----------

    if (product in item):
        print("This item is already listed once.")
        print("If you continue this new value will overwrite the previous one.")
        print('\n',end='')
        ask_product=input("Do you want to continue(y/n):")
        print('\n',end='')

        if (ask_product in ['y','Y','yes']):
            pass
        else:
            print("Reiterating....")
            print('\n',end='')
            break

    #checking over----------
```

```
            price=[quantity,cost,(quantity*cost)]
            item[product]=price
            print("Updation successful.")
            break
    else:
        print('\n',end='')
        print("Product not found.")

elif (choice_correction=='2'):
    item_name=input("Enter product name:")

    for i in item:
        if (i==item_name):
            del item[i]
            print("Deletion successful.")
            break
    else:
        print('\n',end='')
        print("Product not found.")

elif (choice_correction=='3'):
    print("Exiting menu....")
    break

else:
    print('\n',end='')
    print("Invalid option.")

print('\n',end='')
ask_again=input("Do you wish to again continue this menu(y/n)?")

if (ask_again in ['y','Y','yes']):
    wish_correction=True
    continue
```

```
        else:
            break

    elif (len(item)==0):
        print('Cart is empty. Exiting menu....')
        break

    else:
        break

#records correction over----------------------------------
amt=0

for i in item:

    amt=amt+item[i][2]

sales=username

#Checking if no item is bought------------

if (len(item)==0):
    item='No product bought.'

#checking for empty item dictionary----------------

dict1={'id':key,'item':item,'amt':amt,'sales':sales}
pickle.dump(dict1,f)



#printing of bill
print('\n')
print('\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/')
print("Customer ID is-",key)
print('\n',end='')
```

```
    print("The bill is as follows:")
    print('\n')

    if (item=='No product bought.'): #checking if no item bought
        print(item)
        print('\n',end='')

    else:
        for i in item:
            print("Product-",i,"; Quantity-",item[i][0])
            print("Cost/piece- Rs",item[i][1],"; Total cost- Rs",item[i][2])
            print('\n',end='')

        print("Total bill amount is:- Rs",amt)
        print('\n')

    print("THANKS FOR SHOPPING WITH US!!")
    print("HAVE A NICE DAY.... :-) ")
    print('\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/')
    print('\n')
    print('--------------------------------*-----------------------------------')

    f.close()

    #bill part over
    #salesperson part over


    #admin part starts

elif(username in admin_username):

    wish2=True

    while wish2:
```

```
print('\n')
print('------------------------------*----------------------------------')
print("Welcome Admin!")

print("Enter 1 to see customer details.")
print("Enter 2 to see items bought by a customer.")
print("Enter 3 to see the sales amount and number of orders per salesperson.")
print("Enter 4 to see total revenue.")
print("Enter 5 to see average money spent by a customer.")
print("Enter 6 to see the total number of orders.")
print("Enter 7 to see the total number of customers.")
print("Enter 8 to modify or delete customer details.")
print("Enter 9 to see the billings made by a salesperson.")
print("Enter 10 to exit.")

print('\n',end='')
choice_admin=input("Enter your choice:")
print('\n',end='')

#making a list of all keys

count_key,key_list,last_key=csv_reader()

#key checking over and pointer goes to the end
#so we close and open the file again

#opening customers file
f=open('customers.csv','r')
reader=csv.DictReader(f)
#opening over

#opening items file and storing all values in reader2
try: # using 'try' to check if item file is there or not
    b="items.bin"
    reader2=bin_reader(b)
```

```
except:

    if(choice_admin=='10'): # exiting if user gives exit command
        print('\n',end='')
        print("Exiting menu.")
        print('--------------------------------*-----------------------------------')
        break
    else:
        print("No data available.")
        print("Reiterating menu.")
        continue

#opening and storing over for items file

if(count_key==0):
    if (choice_admin=='10'):
        print('\n',end='')
        print("Exiting menu.")
        print('--------------------------------*-----------------------------------')
        break
    else:
        print("FILES ARE EMPTY.")



elif(choice_admin=='1'):

    print("Enter 1 to view details of a customer.")
    print("Enter 2 to view details of all customers.")
    print("Enter 3 to exit.")

    print('\n',end='')
    choice_details=input("Enter your choice:")
    print('\n',end='')

    if(choice_details=='1'):
```

```
    key=int(input("Enter customer key:"))

    if(key in key_list):

        print('\n',end='')
        print("The customer details are as follows:-")

        for i in reader:

            if(int(i['id'])==key):

                print('Name-',i['name'],'; Id-',i['id'])
                print('number-',i['number'],'; Email-',i['email'])
                print('\n',end='')

    else:
        print('\n',end='')
        print("Entered key doesn't exist in database.")


elif(choice_details=='2'):

    for i in reader:

        print('Name-',i['name'],'; Id-',i['id'])
        print('number-',i['number'],'; Email-',i['email'])
        print('\n',end='')

elif (choice_details=='3'):
    print("Exiting menu.")
    pass

else:
    print("You have entered a wrong operator.")
```

```
elif(choice_admin=='2'):

    key=int(input("Enter customer key:"))

    if(key in key_list):

        count_orders=1  #counts the numbers of orders made by the person

        for i in reader2:

            if (i['id']==key):

                print('\n',end='')
                print('\n',end='')
                print("This is order number-",count_orders)
                print('\n',end='')
                print("The billing was done by:",i['sales'])
                print('\n',end='')
                print("The items are as follows:")
                print('\n')
                dic=i['item']

                if (dic=='No product bought.'):
                    print(dic)
                    print('\n',end='')

                else:
                    for j in dic:
                        print("Product name-",j,'; Quantity-',dic[j][0])
                        print("Cost/piece- Rs",dic[j][1],'; Total cost- Rs',dic[j][2])
                        print('\n',end='')
```

```
                print("Total bill amount- Rs",i['amt'])
            count_orders+=1

    else:
        print('\n',end='')
        print("Entered key is not in database.")


elif(choice_admin=='3'):

    dic={} #temporary dictionary for storing salesperson's number of order and revenue

    for i in reader2:

        b=i['sales']
        count2=0
        amount=0

        if (b not in dic):
            for j in reader2:
                if (j['sales']==b and j['amt']!=0): #checking if customer bought something or not
                    count2+=1
                    amount+=j['amt']

            dic[b]=[count2,amount] #storing info in a dic with list values


    for k in dic:
        print('Salespersons is -',k)
        print("            Total number of orders are:",dic[k][0])
        print("            Total sales amount is:",dic[k][1])
        print('\n',end='')
```

```
elif(choice_admin=='4'):

    revenue=0

    for i in reader2:

        revenue+=i['amt']

    print("The total revenue is- Rs",revenue)

elif(choice_admin=='5'):

    revenue=0 #first finding total revenue

    for i in reader2:

        revenue+=i['amt']

    #finding total number of orders
    orders=0
    for j in reader2:
        orders+=1

    average=revenue/orders

    print("The average spend per customer is: Rs",average)

elif(choice_admin=='6'):

    orders=0
    for i in reader2:

        if (i['amt']!=0): #checking for customers who bought nothing
            orders+=1
```

```
    print("Total number of orders till now are:",orders)

elif(choice_admin=='7'):

    customers_number=0

    for i in reader:
        customers_number+=1

    print("Total number of customers till now are:",customers_number)

elif(choice_admin=='8'):

    print('\n')
    key=int(input("Enter key of the customer that need to be modified:"))

    if (key in key_list):

        print('\n',end='')
        print("Enter 1 to change name.")
        print("Enter 2 to change phone number.")
        print("Enter 3 to change email address.")
        print("Enter 4 to delete customer records.")
        print("Enter 5 to exit.")

        print('\n',end='')
        choice_modify=input("Enter your choice:")
        master_list=[] # list for storing all records to be inserted into the csv file
        marker=0 #for telling if file was updated or not
        h=open('customers2.csv','w')
        writer=csv.DictWriter(h,fieldnames=['id','name','number','email'],lineterminator='\n')
        writer.writeheader()
        count=0 # for checking if all tries are over or not in number updation
        print('\n')
```

```
if (choice_modify=='1'):
    name=input("Enter new name:")

    for i in reader:

        if (int(i['id'])==key):
            record=i # this is a dictionary that we receive from the csv file
            record['name']=name # changing name in record
            master_list.append(record)
        else:
            master_list.append(i)



    writer.writerows(master_list) # writing all the records into the csv file
    print("Name updated successfully.")
    h.close()

elif (choice_modify=='2'):



    for i in range(0,3): # inputing new number
        number=input("Enter new contact number(Max. 3 tries):")

        if(number.isdigit() and len(number)==10):
            break
        else:
            print("Invalid number!")
            count=count+1
            continue

    if (count==3): # skipping rest part if all tries over and going to the end
        pass
    else:
        for i in reader:
```

```
            if (int(i['id'])==key):
                record=i # this is a dictionary that we receive from the csv file
                record['number']=number # changing name in record
                master_list.append(record)
            else:
                master_list.append(i)


        writer.writerows(master_list) # writing all the records into the csv file
        print("Number updated successfully.")
        h.close()

elif (choice_modify=='3'):
    email=input("Enter new email address:")

    for i in reader:

        if (int(i['id'])==key):
            record=i # this is a dictionary that we receive from the csv file
            record['email']=email # changing name in record
            master_list.append(record)
        else:
            master_list.append(i)


    writer.writerows(master_list) # writing all the records into the csv file
    print("Email updated successfully.")
    h.close()

elif (choice_modify=='4'):
    for i in reader: #for deletion of record in csv file
        if (int(i['id'])==key):
            pass
        else:
            master_list.append(i)
```

```
            writer.writerows(master_list)
            h.close()

            marker=2 #for deletion of record in binary file

        elif (choice_modify=='5'):
            marker=1
            pass

        else:
            print("Invalid input.")
            h.close()
            marker=1


        if ((marker==0 or marker==2) and count!=3): # copying data from customers2 only if updation took
place
            h=open('customers2.csv','r') # opening file again so that pointer starts from the bginning
            p=open('customers.csv','w')
            writer2=csv.DictWriter(p,fieldnames=['id','name','number','email'],lineterminator='\n')
            writer2.writeheader()

            reader3=csv.DictReader(h)

            for j in reader3: # transferring records
                writer2.writerow(j)


            p.close()
            h.close()

        if (marker==2): #for deletion of records purposes

            q=open('items2.bin','wb')
```

```
            for k in reader2:
                if (k['id']==key):
                    pass
                else:
                    pickle.dump(k,q)

            q.close() #closing file because pointer is at the end

            q=open('items2.bin','rb') #opening file again to read
            reader3=bin_reader('items2.bin')

            r=open('items.bin','wb')

            for m in reader3:
                pickle.dump(m,r)

            print("Deletion successful.")

            r.close()
            q.close()


        else:
            print("Invalid key.")

    elif (choice_admin=='9'):

        person=input("Enter username of salesperson:")

        if (person in usernames):

            count_orders=1

            for i in reader2:
```

```
            if (i['sales']==person):

                print('\n',end='')
                print('\n',end='')
                print("This is billing number-",count_orders)
                print('\n',end='')
                print("The billing was done for customer with ID:",i['id'])
                print('\n',end='')
                print("The items are as follows:")
                print('\n')
                dic=i['item']

                if (dic=='No product bought.'):
                    print(dic)
                    print('\n',end='')

                else:
                    for j in dic:
                        print("Product name-",j,'; Quantity-',dic[j][0])
                        print("Cost/piece- Rs",dic[j][1],'; Total cost- Rs',dic[j][2])
                        print('\n',end='')

                    print("Total bill amount- Rs",i['amt'])
                count_orders+=1

    else:
        print("Invalid username.")
        print('\n',end='')

elif (choice_admin=='10'):
    print("Exiting...")
    break

else:
```

```
            print("You entered an invalid option!")

        #Closing all files at the end

        f.close()



        #asking if u want to use this menu again
        print('\n \n',end='')
        ask_admin=input("Do you wish to continue this menu(y/n)?")

        if(ask_admin=='y'):
            wish2=True
            continue
        else:
            wish2=False
            print("Exiting....")
            print('--------------------------------*-----------------------------------')
            break




print('\n \n',end='')
ask=input("Do you want to continue the main program again(y/n)?")

if(ask in ['y','Y','yes']):
    wish=True
    print('\n',end='')
else:
    wish=False
    print("Exiting....")
    print('--------------------------------*-----------------------------------')
    brea
```

Output

I. Salesperson section

1 Starting Menu-

```
**--------PARAMAK Mall Sales-cum-Database Management Software--------**


*----------------------Main Menu----------------------*
Enter 1 to login for salesperson section.
Enter 2 to login for admin section.
Enter 3 to exit.

Enter your choice:
```

2 Login and new customer section-

```
**--------PARAMAK Mall Sales-cum-Database Management Software--------**


*----------------------Main Menu----------------------*
Enter 1 to login for salesperson section.
Enter 2 to login for admin section.
Enter 3 to exit.

Enter your choice:1
Enter your username(Max. 3 tries):sales2@abcmall.com

Enter your password(Max. 3 tries):sales2
```

```
------------------------------*-----------------------------------
Welcome Salesperson.
Enter customer id(if any) or else enter 0:0

Enter name:Param Dixit
Enter contact number(Max. 3 tries):400000000
Invalid number!
Enter contact number(Max. 3 tries):abcdedfhdg
Invalid number!
Enter contact number(Max. 3 tries):9564865465
Enter email id:paramdixit@gmail.com
```

3 Billing section

```
------------------------------*-----------------------------------
Billing starts.

Enter product name:Sony headphone
Enter product price (per item or per (kg or L)):5000
Enter number of pieces (or kg or L):1



Do you want to add 1 more item(y/n)?y

Enter product name:Carpet
Enter product price (per item or per (kg or L)):10000
Enter number of pieces (or kg or L):1



Do you want to add 1 more item(y/n)?y

Enter product name:Flour
Enter product price (per item or per (kg or L)):2.5
Enter number of pieces (or kg or L):1



Do you want to add 1 more item(y/n)?n
```

4 Bill modifying menu

```
Do you wish to delete or modify any item(y/n)?y

Enter 1 to modify a product.
Enter 2 to delete a product.
Enter 3 to exit.
Enter your choice:1

Enter product name:Flour

Enter new product name:Flour
Enter product price (per item or per (kg or L)):100
Enter number of pieces (or Kg or L):2.5

Updation successful.

Do you wish to again continue this menu(y/n)?n
```

5 Bill printing menu

```
\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/
Customer ID is- 105

The bill is as follows:


Product- Sony headphone ; Quantity- 1.0
Cost/piece- Rs 5000.0 ; Total cost- Rs 5000.0

Product- Carpet ; Quantity- 1.0
Cost/piece- Rs 10000.0 ; Total cost- Rs 10000.0

Product- Flour ; Quantity- 2.5
Cost/piece- Rs 100.0 ; Total cost- Rs 250.0

Total bill amount is:- Rs 15250.0


THANKS FOR SHOPPING WITH US!!
HAVE A NICE DAY.... :-)
\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/-\-/
```

II. Admin menu

1 Login and menu

```
*----------------------Main Menu----------------------*
Enter 1 to login for salesperson section.
Enter 2 to login for admin section.
Enter 3 to exit.

Enter your choice:2
Enter your username(Max. 3 tries):admin@abcmall.com

Enter your password(Max. 3 tries):admin123


--------------------------------*-----------------------------------
Welcome Admin!
Enter 1 to see customer details.
Enter 2 to see items bought by a customer.
Enter 3 to see the sales amount and number of orders per salesperson.
Enter 4 to see total revenue.
Enter 5 to see average money spent by a customer.
Enter 6 to see the total number of orders.
Enter 7 to see the total number of customers.
Enter 8 to modify or delete customer details.
Enter 9 to see the billings made by a salesperson.
Enter 10 to exit.

Enter your choice:
```

2 1st option

```
Enter your choice:1

Enter 1 to view details of a customer.
Enter 2 to view details of all customers.
Enter 3 to exit.

Enter your choice:2

Name- Gaurang Dixit ; Id- 101
number- 1234567890 ; Email- gaurang@gmail.com

Name- Ram ; Id- 102
number- 5432167890 ; Email- ram@gmail.com

Name- Shyam Mishra ; Id- 103
number- 7685948576 ; Email- shyam@yahoo.com

Name- Parag Tiwari ; Id- 104
number- 8576893400 ; Email- parag@gmail.com

Name- Param Dixit ; Id- 105
number- 9564865465 ; Email- paramdixit@gmail.com



Do you wish to continue this menu(y/n)?y
```

3 2nd option

```
Enter customer key:103


This is order number- 1

The billing was done by: sales3@abcmall.com

The items are as follows:


Product name- Tea ; Quantity- 2.0
Cost/piece- Rs 200.0 ; Total cost- Rs 400.0

Product name- Coffee ; Quantity- 1.0
Cost/piece- Rs 300.0 ; Total cost- Rs 300.0

Product name- Namkeen ; Quantity- 3.0
Cost/piece- Rs 50.0 ; Total cost- Rs 150.0

Product name- Flour ; Quantity- 5.0
Cost/piece- Rs 100.0 ; Total cost- Rs 500.0

Total bill amount- Rs 1350.0
```

```
This is order number- 2

The billing was done by: sales1@abcmall.com

The items are as follows:


Product name- Moong dal ; Quantity- 2.0
Cost/piece- Rs 100.0 ; Total cost- Rs 200.0

Product name- Bournvita ; Quantity- 1.0
Cost/piece- Rs 500.0 ; Total cost- Rs 500.0

Product name- Milk ; Quantity- 1.5
Cost/piece- Rs 50.0 ; Total cost- Rs 75.0

Total bill amount- Rs 775.0
```

4 4th,5th,6th and 7th option

```
Enter your choice:4

The total revenue is- Rs 134225.0
```

```
Enter your choice:5

The average spend per customer is: Rs 19175.0
```

```
Enter your choice:6

Total number of orders till now are: 7
```

```
Enter your choice:7

Total number of customers till now are: 5
```

5 8th option

```
Enter your choice:8



Enter key of the customer that need to be modified:105

Enter 1 to change name.
Enter 2 to change phone number.
Enter 3 to change email address.
Enter 4 to delete customer records.
Enter 5 to exit.

Enter your choice:4


Deletion successful.
```

```
Enter your choice:1

Enter 1 to view details of a customer.
Enter 2 to view details of all customers.
Enter 3 to exit.

Enter your choice:2

Name- Gaurang Dixit ; Id- 101
number- 1234567890 ; Email- gaurang@gmail.com

Name- Ram ; Id- 102
number- 5432167890 ; Email- ram@gmail.com

Name- Shyam Mishra ; Id- 103
number- 7685948576 ; Email- shyam@yahoo.com

Name- Parag Tiwari ; Id- 104
number- 8576893400 ; Email- parag@gmail.com
```

6 9th option

```
Enter your choice:9

Enter username of salesperson:sales1@abcmall.com


This is billing number- 1

The billing was done for customer with ID: 101

The items are as follows:


Product name- Books ; Quantity- 5.0
Cost/piece- Rs 400.0 ; Total cost- Rs 2000.0

Product name- Pens ; Quantity- 5.0
Cost/piece- Rs 40.0 ; Total cost- Rs 200.0

Product name- Bookmarks ; Quantity- 1.0
Cost/piece- Rs 100.0 ; Total cost- Rs 100.0

Total bill amount- Rs 2300.0
```

```
This is billing number- 2

The billing was done for customer with ID: 103

The items are as follows:


Product name- Moong dal ; Quantity- 2.0
Cost/piece- Rs 100.0 ; Total cost- Rs 200.0

Product name- Bournvita ; Quantity- 1.0
Cost/piece- Rs 500.0 ; Total cost- Rs 500.0

Product name- Milk ; Quantity- 1.5
Cost/piece- Rs 50.0 ; Total cost- Rs 75.0

Total bill amount- Rs 775.0
```

7 Program ending

```
Enter your choice:10

Exiting...


Do you want to continue the main program again(y/n)?n
Exiting....
--------------------------------*----------------------------------
```

Acknowledgement

I would like to thank my parents for helping me with the printout of my project and for giving me some nice ideas and my teachers for helping me clear my doubts whenever I approached them.

Certificate