

AIM

Connecting MySQL and Python

INTRODUCTION

Program collects the details of products according to the customers need and proceed to calculate the total cost along with storing the whole details. This program is useful in real life situation, especially in cafes, or small restaurants. It helps to reduce the manual work and there is no need to worry about calculation mistakes.

The front end used is Python and back end used is MySQL.

DATABASE DESIGN

TABLE : MENU

```
mysql> use Starbucks;
Database changed
mysql> select*from MENU;
```

FoodID	FoodName	FoodPrice
101	ESPRESSO MACCHIATO	90
102	ESPRESSO CON PANNA	90
103	CAFE AMERICANO	110
104	CAPPUCCINO	95
105	CAFFE LATTE	110
106	VANILLA LATTE	125
107	HAZELNUT LATTE	120
108	CARAMEL MACCHIATO	130
109	CAFFE MOCHA	90
110	WHITE CHOCOLATE MOCHA	110
111	COFFEE	50
112	GREEN TEA LATTE	80
113	CHAI TEA LATTE	80
114	ICED SHAKEN TEA	100
115	FRENCH PASS BREWED COFFEE	140
116	HOT CHOCOLATE	120
117	ALMOND AND BUTTERSCOTCH COOKIE	125
118	OATMEAL AND RAISIN COOKIE	125
119	BLUEBERRY MUFFIN	130
120	JAVA CHIP CHOCOLATE MUFFIN	130
121	BLUEBERRY DELIGHT CAKE	200
122	CHOCOLATE TRUFFLE GATEAU	195
123	BANANA CHOCOLATE CAKE	160
124	CHOCOLATE BROWNIE	195
125	RED VELVET AND ORANGE CHEESECAKE	200
126	LEMON LOAF CAKE	185
127	LEMON JAZZ CHEESECAKE	195
128	PAIN DE CHOCOLATE	190
129	CARAMAL CAKE	160
130	FULL LEAF BREWED TEA	110

30 rows in set (0.00 sec)

TABLE : CUSTOMERS

```
mysql> select*from CUSTOMERS;
```

FoodID	FoodName	Servings	FoodPrice	Time
107	HAZELNUT LATTE	2	120	2021-11-03 14:21:25
113	CHAI TEA LATTE	3	80	2021-11-03 14:21:41
120	JAVA CHIP CHOCOLATE MUFFIN	1	130	2021-11-03 14:22:07
111	COFFEE	5	50	2021-11-03 14:22:16

4 rows in set (0.00 sec)

```
In [1]: pip install datetime

Requirement already satisfied: datetime in c:\programdata\anaconda3\lib\site-packages (4.3)
Requirement already satisfied: pytz in c:\programdata\anaconda3\lib\site-packages (from datetime) (2020.1)
Requirement already satisfied: rope.interface in c:\programdata\anaconda3\lib\site-packages (from datetime) (5.1.2)
Requirement already satisfied: setuptools in c:\programdata\anaconda3\lib\site-packages (from rope.interface->datetime) (50.3.1.post20201107)
Note: you may need to restart the kernel to use updated packages.

In [2]: pip install prettytable

Requirement already satisfied: prettytable in c:\programdata\anaconda3\lib\site-packages (2.2.1)
Requirement already satisfied: wcwidth in c:\programdata\anaconda3\lib\site-packages (from prettytable) (0.2.5)
Note: you may need to restart the kernel to use updated packages.
```

PROGRAM CODE AND OUTPUTS

To create table MENU

```
In [2]: import mysql.connector
mydb=mysql.connector.connect(host="localhost",user="root",password="2002",database="Starbucks")
mycursor=mydb.cursor()
mycursor.execute("create table MENU(FoodID integer,FoodName varchar(200),FoodPrice integer)")
print("Done successfully")

Done successfully

To insert records into MENU

In [3]: import mysql.connector
mydb=mysql.connector.connect(host="localhost",user="root",password="2002",database="Starbucks")
mycursor=mydb.cursor()
rub='y'
while rub=='y':
    FoodID=input("Enter food ID:")
    FoodName=input("Enter food name:")
    FoodPrice=input("Enter food price:")
    mycursor.execute("insert into MENU(FoodID,FoodName,FoodPrice) values ({},'{}',{})".format(FoodID,FoodName,FoodPrice))
    mydb.commit()
    print("record inserted")
    rub=input("Do you want to continue:")

Enter food ID:101
Enter food name:ESPRESSO MACCHIATO
Enter food price:90
record inserted
Do you want to continue:y
Enter food ID:102
Enter food name:ESPRESSO CON PANNA
Enter food price:90
record inserted
Do you want to continue:y
Enter food ID:103
Enter food name:CAFE AMERICANO
Enter food price:110
record inserted
Do you want to continue:y
Enter food ID:104
Enter food name:CAPPUCCINO
Enter food price:95
record inserted
Do you want to continue:y
Enter food ID:105
Enter food name:CAFFE LATTE
Enter food price:110
record inserted
Do you want to continue:y
Enter food ID:106
Enter food name:VANILLA LATTE
Enter food price:125
record inserted
Do you want to continue:y
Enter food ID:107
Enter food name:HAZELNUT LATTE
Enter food price:120
record inserted
Do you want to continue:y
Enter food ID:108
Enter food name:CARAMEL MACCHIATO
Enter food price:130
record inserted
Do you want to continue:y
Enter food ID:109
Enter food name:CAFFE MOCHA
Enter food price:90
record inserted
Do you want to continue:y
Enter food ID:110
Enter food name:WHITE CHOCOLATE MOCHA
Enter food price:110
record inserted
Do you want to continue:y
Enter food ID:111
Enter food name:COFFEE
Enter food price:50
record inserted
Do you want to continue:y
Enter food ID:112
Enter food name:GREEN TEA LATTE
Enter food price:80
record inserted
Do you want to continue:y
Enter food ID:113
Enter food name:CHAI TEA LATTE
Enter food price:80
record inserted
Do you want to continue:y
Enter food ID:114
Enter food name:ICED SHAKEN TEA
Enter food price:100
record inserted
Do you want to continue:y
Enter food ID:115
Enter food name:FRENCH PASS BREWED COFFEE
Enter food price:140
record inserted
Do you want to continue:y
Enter food ID:116
Enter food name:HOT CHOCOLATE
Enter food price:120
record inserted
Do you want to continue:y
Enter food ID:117
Enter food name:ALMOND AND BUTTERSCOTCH COOKIE
Enter food price:125
record inserted
Do you want to continue:y
Enter food ID:118
Enter food name:OATMEAL AND RAISIN COOKIE
Enter food price:125
record inserted
Do you want to continue:y
Enter food ID:119
Enter food name:BLUEBERRY MUFFIN
Enter food price:130
record inserted
Do you want to continue:y
Enter food ID:120
Enter food name:JAVA CHIP CHOCOLATE MUFFIN
Enter food price:130
record inserted
Do you want to continue:y
Enter food ID:121
Enter food name:BLUEBERRY DELIGHT CAKE
Enter food price:200
record inserted
Do you want to continue:y
Enter food ID:122
Enter food name:CHOCOLATE TRUFFLE GATEAU
Enter food price:195
record inserted
Do you want to continue:y
Enter food ID:123
Enter food name:BANANA CHOCOLATE CAKE
Enter food price:160
record inserted
Do you want to continue:y
Enter food ID:124
Enter food name:CHOCOLATE BROWNIE
Enter food price:195
record inserted
Do you want to continue:y
Enter food ID:125
Enter food name:RED VELVET AND ORANGE CHEESECAKE
Enter food price:200
record inserted
Do you want to continue:y
Enter food ID:126
Enter food name:LEMON LOAF CAKE
Enter food price:185
record inserted
Do you want to continue:y
Enter food ID:127
Enter food name:LEMON JAZZ CHEESECAKE
Enter food price:195
record inserted
Do you want to continue:y
Enter food ID:128
Enter food name:PAIN DE CHOCOLATE
Enter food price:190
record inserted
Do you want to continue:y
Enter food ID:129
Enter food name:CARAMAL CAKE
Enter food price:160
record inserted
Do you want to continue:y
Enter food ID:130
Enter food name:FULL LEAF BREWED TEA
Enter food price:110
record inserted
Do you want to continue:n
```

To create table CUSTOMERS

```
In [5]: import mysql.connector
mydb=mysql.connector.connect(host="localhost",user="root",password="2002",database="Starbucks")
mycursor=mydb.cursor()
mycursor.execute("create table CUSTOMERS(FoodID integer,FoodName varchar(200),Servings integer,FoodPrice integer,Time datetime)")
print("Done successfully")

Done successfully

To insert records into CUSTOMERS

In [6]: def binary(list,beg,last,val):
    if (last<beg):
        print("Invalid choice")
        xy=int(input("Enter ID"))
        kp=binary(d,0,len(d)-1,xy)
        return kp
    else:
        mid=(beg+last)//2
        if list[mid]>val:
            return binary(list,beg,mid-1,val)
        elif list[mid]<val:
            return binary(list,mid+1,last,val)
        else:
            return val

import mysql.connector
mydb=mysql.connector.connect(host="localhost",user="root",password="2002",database="Starbucks")
mycursor=mydb.cursor()
print("\033[1m" "STARBUCKS""\033[0m")
mycursor.execute("select*from MENU")
rs=mycursor.fetchall()
from prettytable import PrettyTable
menu=PrettyTable(["\033[1m" "FOODID", "FOODNAME", "FOODPRICE""\033[0m"])
for i in rs:
    menu.add_row(i)
print(menu)
print("#prices are in Indian rupees")
l=[]
t=[]
vb='y'
while vb=='y':
    s=[]
    k=int(input("Enter FoodID:"))
    d=[]
    mycursor.execute("select FoodID from MENU")
    rt=mycursor.fetchall()
    for v in rt:
        d.append(v[0])
    foodid=binary(d,0,len(d)-1,km)
    servings=int(input("Enter no of Servings:"))
    import datetime
    now=datetime.datetime.now()
    timx=now.strftime("%Y-%m-%d %H:%M:%S")
    fname="select FoodName from MENU where FoodID=%s"
    mycursor.execute(fname,(foodid,))
    ry=mycursor.fetchall()
    for j in ry:
        fname=j[0]
    fprice="select FoodPrice from MENU where FoodID=%s"
    mycursor.execute(fprice,(foodid,))
    bw=mycursor.fetchall()
    for u in bw:
        fprice=u[0]
    mycursor.execute("insert into CUSTOMERS(FoodID,FoodName,Servings,FoodPrice,Time) values ({},'{}',{},{},'{}')".format(foodid,fname,servings,fprice,now))
    mydb.commit()
    amt=fprice*servings
    s.append(foodid)
    s.append(fname)
    s.append(servings)
    s.append(amt)
    l.append(s)
    t.append(amt)
    print("Added successfully")
    vb=input("would you like to continue(y/n):")
    if vb!='y':
        from prettytable import PrettyTable
        order=PrettyTable(["\033[1m" "FoodID", "FoodName", "FoodPrice", "Servings", "Amount""\033[0m"])
        for rec in l:
            order.add_row(rec)
        print(order)
        sum=0
        for p in t:
            sum=sum+p
        print("TOTAL AMOUNT=",sum)
        print("\033[1m" "THANK YOU""\033[0m")

STARBUCKS
+-----+-----+-----+
| FOODID | FOODNAME | FOODPRICE |
+-----+-----+-----+
| 101 | ESPRESSO MACCHIATO | 90 |
| 102 | ESPRESSO CON PANNA | 90 |
| 103 | CAFE AMERICANO | 110 |
| 104 | CAPPUCCINO | 95 |
| 105 | CAFFE LATTE | 110 |
| 106 | VANILLA LATTE | 125 |
| 107 | HAZELNUT LATTE | 120 |
| 108 | CARAMEL MACCHIATO | 130 |
| 109 | CAFFE MOCHA | 90 |
| 110 | WHITE CHOCOLATE MOCHA | 110 |
| 111 | COFFEE | 50 |
| 112 | GREEN TEA LATTE | 80 |
| 113 | CHAI TEA LATTE | 80 |
| 114 | ICED SHAKEN TEA | 100 |
| 115 | FRENCH PASS BREWED COFFEE | 140 |
| 116 | HOT CHOCOLATE | 120 |
| 117 | ALMOND AND BUTTERSCOTCH COOKIE | 125 |
| 118 | OATMEAL AND RAISIN COOKIE | 125 |
| 119 | BLUEBERRY MUFFIN | 130 |
| 120 | JAVA CHIP CHOCOLATE MUFFIN | 130 |
| 121 | BLUEBERRY DELIGHT CAKE | 200 |
| 122 | CHOCOLATE TRUFFLE GATEAU | 195 |
| 123 | BANANA CHOCOLATE CAKE | 160 |
| 124 | CHOCOLATE BROWNIE | 195 |
| 125 | RED VELVET AND ORANGE CHEESECAKE | 200 |
| 126 | LEMON LOAF CAKE | 185 |
| 127 | LEMON JAZZ CHEESECAKE | 195 |
| 128 | PAIN DE CHOCOLATE | 190 |
| 129 | CARAMAL CAKE | 160 |
| 130 | FULL LEAF BREWED TEA | 110 |
+-----+-----+-----+

#prices are in Indian rupees
Enter FoodID:107
Enter no of Servings:2
Added successfully
would you like to continue(y/n):y
Enter FoodID:113
Enter no of Servings:3
Added successfully
would you like to continue(y/n):y
Enter FoodID:120
Enter no of Servings:1
Added successfully
would you like to continue(y/n):y
Enter FoodID:111
Enter no of Servings:5
Added successfully
would you like to continue(y/n):n
+-----+-----+-----+
| FoodID | FoodName | FoodPrice | Servings | Amount |
+-----+-----+-----+
| 107 | HAZELNUT LATTE | 120 | 2 | 240 |
| 113 | CHAI TEA LATTE | 80 | 3 | 240 |
| 120 | JAVA CHIP CHOCOLATE MUFFIN | 130 | 1 | 130 |
| 111 | COFFEE | 50 | 5 | 250 |
+-----+-----+-----+
TOTAL AMOUNT= 860
THANK YOU
```

BIBLIOGRAPHY

1.PYTHON

Author : PREETI ARORA

2.MySQL

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