

Mini Project Phase-II (Mid-Term) on

Sweet shop billing system using python

Submitted in partial fulfilment for the degree of Bachelor of Technology in
Data science

Submitted by

- 1 .Madhuja Patil (2015052)
2. Tanuja Somvanshi (2015068)
- 3 Minal Rajgire (2015058)

Under the guidance of
Prof. Merrin Madam



Usha Mittal Institute of Technology
S.N.D.T. Women's University
Juhu Tara Road, Santacruz (West),
Mumbai-400049
2022-2023

CERTIFICATE

This is to certify that **Tanuja Somvanshi, Madhuja Patil, Minal Rajgire** have completed the Mini Project Phase-II(Mid-Tem) on the topic “**Sweet shop billing system using python**” satisfactorily in partial fulfillment for the Bachelor Degree in Data Science under the guidance of **Prof. Merrin Madam** during the year 2022-23 as prescribed by S.N.D.T.

Women’s University, Mumbai.

Guide

Prof. Merrin Madam

Head of Department

Mr.Rajesh Kolte

Principal Name
Dr. Shika Nema

Examiner 1

Examiner2

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Abstract

Instant Invoices Bills and invoices are created faster than manual bills due to readily available formats and past customer data. One can also customize bills based on requirements with minimal effort. This helps save time and the cost of billing. Security Once the software is deployed, access controls can be placed to prevent misuse or wrong issue of invoices. This also ensures transparency in the billing system. Paperwork reduction: Due to the automation of the process, billing systems make it easy to keep records of items. This helps immensely in accounting and reports preparation by preventing errors and omissions. Easy payments Billing systems also help maintain a record of all payments received.

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1 Introduction

The Project is 'Sweet Shop Billing System' software for monitoring and controlling the transaction in a sweet shop. It has user friendly and modular approach. The software Data storing is easier using Modular approach software. Paper work and Manual work is reduced. Simple System is maintained. Use Interface friendly it takes very less time to get use to with the system.

The Sweet shop billing System is a standalone application which is based on ordering and selling the sweet and other items and generating bill. The main principle behind the need of Sweet shop Billing system is easy Supervision of shop .It has user friendly and modular approach. The Modular approach of the software increases the flexibility of the software Data Storing is easier. It will be able to check any report at any time. Paper work and Manual work is reduced.

1.1 Problem Statement

Presently, in the sweet shop have been done manually in most cases, thereby taking more time for Bill making in computerized We select items and how make item we take then total came and generate the receipt easily. Series of problems occur as a result of this thereby resulting to inefficient sweet Shop Management In most cases as a result of human error there maybe loss and damages of records due to not using a computerized system in the sweet shop then spend more time to make bill. The difficulty in the sweet shop counting and calculating the items is a problem in the manual shop thereby causing inefficiency and time consuming in the sweet shop. Also the problem of space consuming erupts after the number of records become large the space for physical storage of file and records also increases if no computerized system is implemented as well as the issue of cost. Due to problem of lack of prompt information calculating the items In addition due to the customer, in this project computer approach will be used to solve these problems. Each of the manual procedure will be analysed.

2 Literature Survey

Sr. no	Name of research paper	Author name	Technology used	Advantage/Disadvantage
1	Cake Walk sweets and savories,1947	N. Sumathi, Abhilash K Nair, Abhishek. G, Sairam Krishna, Radhesh S. , Sudipta Jena, V.Jagadeesh, V.Yaswanth	Cake Walk sweets products can be enjoyed by kids and adults alike, and their products come in an array of flavors, shapes and sizes.	Advantage: Market Leader & exporter of Sweets. Disadvantage: Weak Positioning cake walk sweets.

2	Wireless Technology and Applications (ISWTA), September 25-8-2011,	Noor Azah Samsudin , Shamsul Kamal Ahmad Khalid, Mohd Fikry Akmal Mohd Kohar, Zulkifli Senin, Mohd	A Customizable Wireless Ordering System with Real-Time Customer Feedback.	Advantage: used python for wireless Technology Disadvantage: It is not cost-effective for small scale business owners.
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		Nor Ihkasan		
3	coginfocom 2013 4th IEEE International Conference on Cognitive Info communications December 2-5, 2013, Budapest, Hungary.	Sakari Pieskä, Markus Liuska, Juhana Jauhianen,	Intelligent sweet shop System Smart Menu That Digital Technology”	Advantage: you can accurate and professional looking invoices with multiple templates. Disadvantage: Reaching offline customers who do not access the internet makes the process difficult

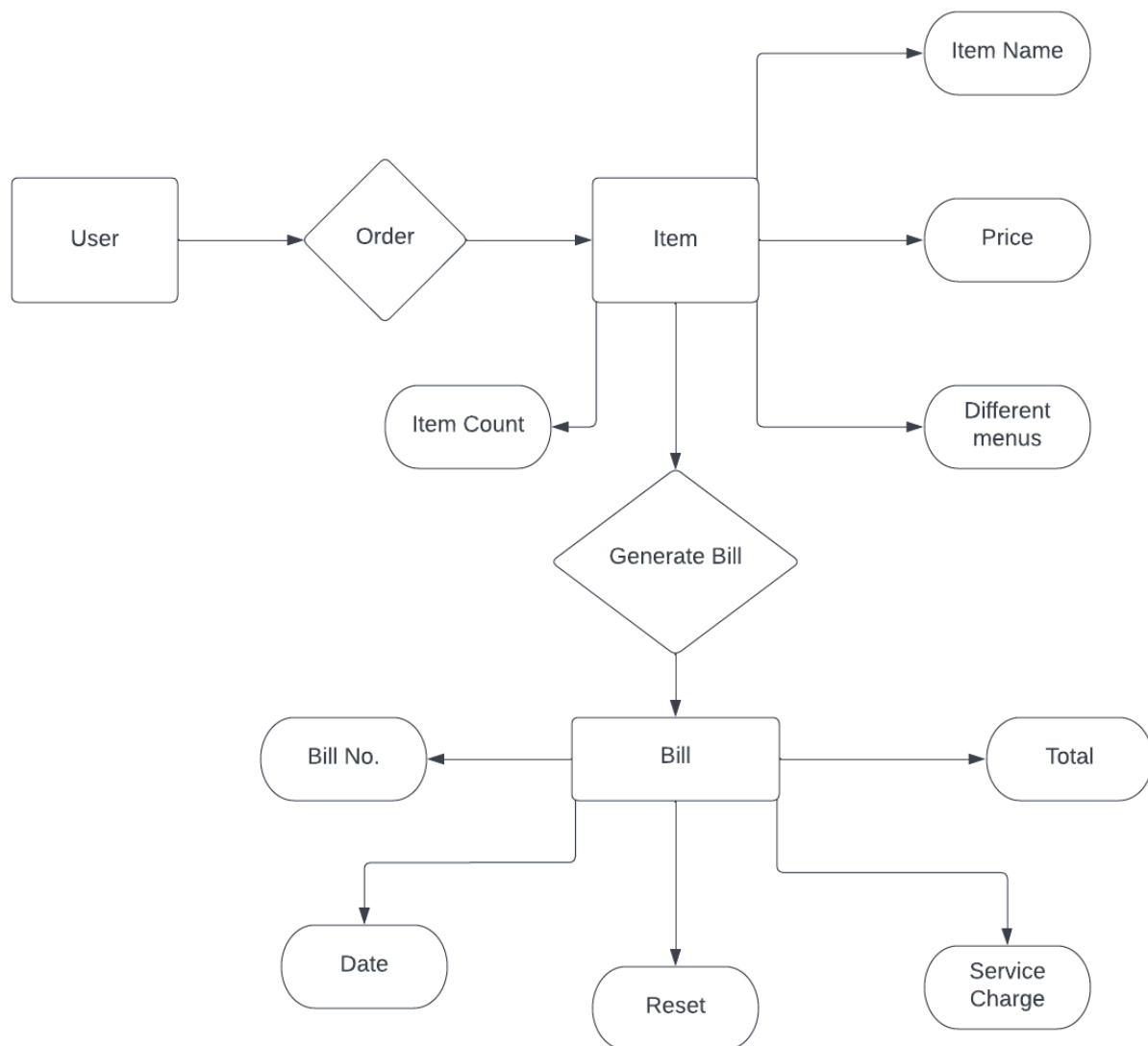
4	Cybernetics, Kunming, 12-15 July 2008	Chingsuchang, Che-chen Kung, Tan-hsu Tan,”	E-sweetfor CustomerCentric Service Using python	Advantage: its work as a reduces material costing that comes with manual billing and filling Disadvantage: they used a hardware device, and cost of this is more
5	shopping cart to ease queue in sweet by using RFID (2015	Yathisha, L., Abhishek, A., Harshith, R., Darshan Koundinya, S.R., Srinidhi,	shopping cart using python and AI	Advantage: Effective communication is established without constant. Disadvantage: That leads to deals of payments.
6	The Smart Cart – An Enhanced Shopping Experience.	The Smart Cart – An Enhanced Shopping Experience.	HCI Technology	Advantage: use of latest technology Disadvantage: Invoices can go into flagging that leads to dealy.

A Sweet shop is a form where wide variety of product items is available the product can be barfi, gulabjammun any sweet product. The main intention of sweet shop is to provide availability of all the items and save the time of the purchaser but sometimes purchaser gets discontented while waiting in the queue at cash counter and sometimes they get frustrated while balancing the total price of all the products with the budgets in the pocket before billing .To swamp these problem, shopping use this technique as a strategy to increase the number of purchasers .In big cities we can observe an enormous flash at shopping sweets on .This becomes even more when there is diversity of offers on discount. Now a day's people buy variety of items and put them in trolley.

After total buying one should approach counter for billing purpose. By using reader the paymaster prepares the bill which is a tedious process. This result in long queues at the cash counter. This project presents an idea to develop system in sweet shop to conquer the above problem. When purchaser puts any item in the trolley its details will recognized automatically ,the item name and rate will displayed on the LCD Screen, thereby the rate gets joined to the final bills. If a purchaser wishes to extract the items from the smart trolley purchaser can take away the product and the price of that particular item gets subtracted from total amount and the same information passes then final generate the receipt.

3. Existing System

In shops, all the orders are taken manually. The stock is maintained on paper. Paperwork takes more time and may lose the data. It demands more manpower and time.



3.1Proposed System

Characteristics of proposed system :

- 1. User-friendly :-** The proposed system is user-friendly because the retrieval and storing of data is fast and data is maintained efficiently
- 2. No use of paper work :-**The proposed system either does not require paper work all the data is inserted into the computer immediately and bills are generated through computers. Since all the data is kept in a database no data of the shop can be destroyed
- 3. Computer operator Control :-** Computer operator control will be there no errors moreover storing and retrieving of information is easy so work can be done speedily and in time

4. Hardware Requirements

- 1) Windows version above 8/10
- 2) 8GB RAM
- 3) 1.2GHz Processor
- 4) Intel i5 above version

5. Software Requirements

- 1) Python Libraries
- 2) Visual Studio code
- 3) Latex , TexMaker

5.1Bill Generation

Input : Accountant will enter car ID.

Process: Calculation of payroll taxes and report tax deduction to the IRS and produce the complete bill once the accountant/cashier enter the car details.

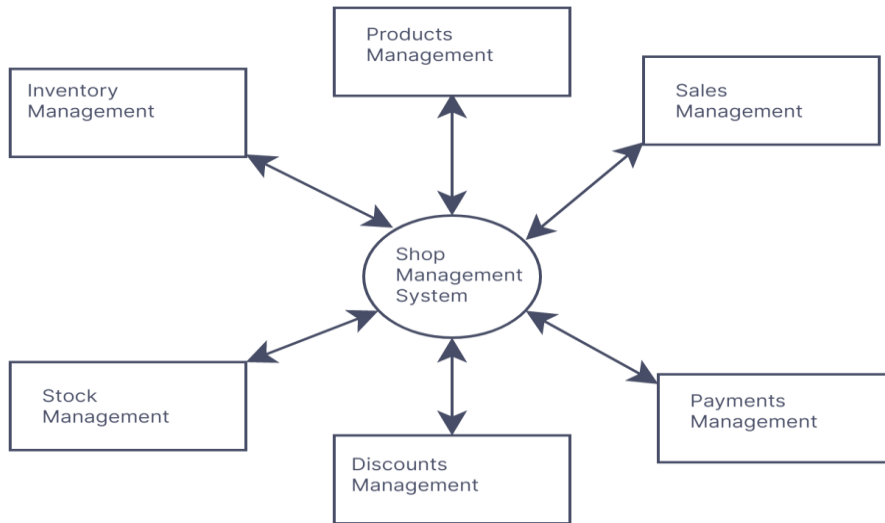
Output: Screen showing total Billed amount and inserting this amount into bill printing machine.

6 Implementation: External Interface Requirements

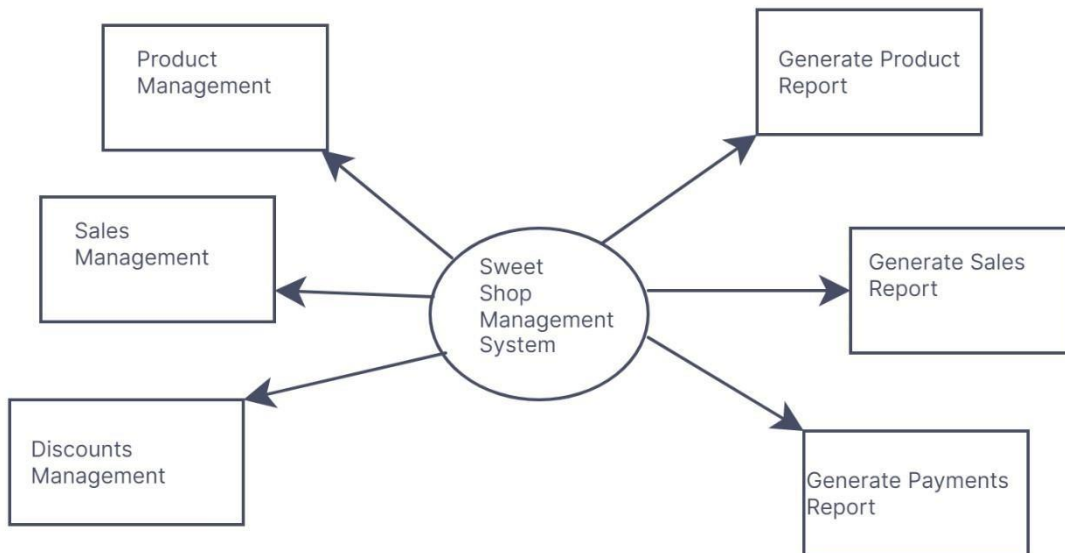
All user commands:

- 1) Number of product available in stock.
- 2) Number of product in stock and customized the retailer.
- 3) Number of spoilers in stock.
- 4) Number of windshields in stock.
- 5) List of punctual employees.
- 6) List of tardy employees.

7. Sweet Shop Billing System(DFD Model)

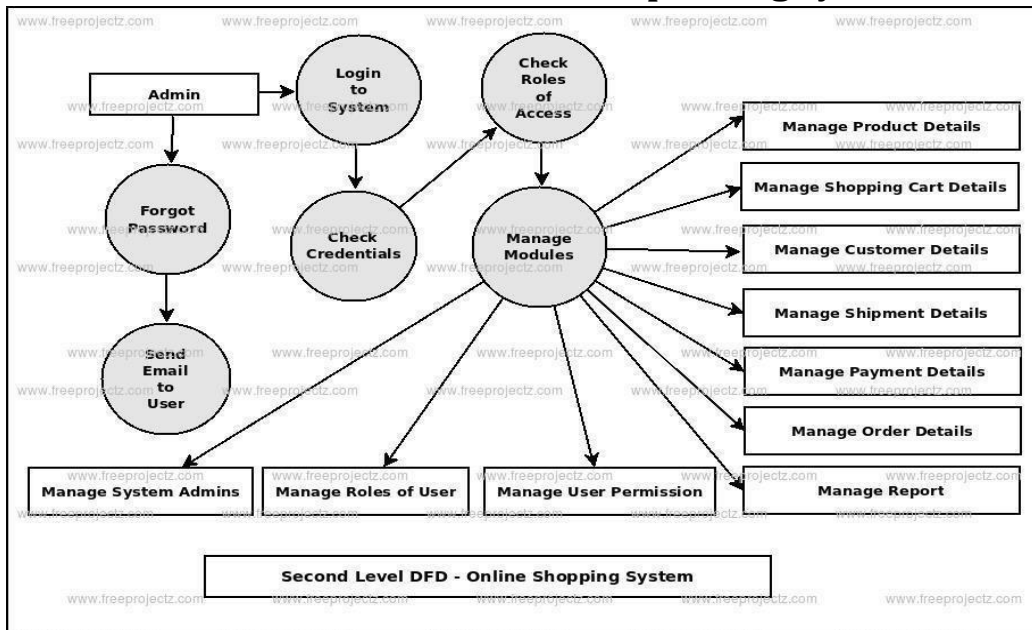


7.1 Zero Level DFD-Sweet shop Billing System



7.2 First Level DFD-Sweet shop Billing System

7.3 Second Level DFD-Sweet Shop Billing System



8 Software Requirement Specification

8.1 Overall Description

This document will provide the information about the purpose of the software, the functionalities it is going to encapsulate and the description how it will be done. It covers the product functions, characteristics of the expected user and the general constraints.

8.2 Product Functions

The different functionalities of the software are:

- i. Improve your restaurant operation & grow your business profitably with customer.
- ii. Get a fine sweet shop management system and billing software for your business and manage billing to stock to every shopkeeper.
- iii. An interface of refund policy will provide the database for the record of new spare parts and accessories and will also keep a record of the product for coming for product on daily basis.

8.3 User Characteristics

- i. The sales manager will access the database and the interface provided under the sales and purchase department.
- ii. The accountant will have access to the billing interface will he just have to enter the name of the product and the cash memo will automatically be generated.
- iii. The policy manager will have access to the service and maintenance interface and will make updation in the records of the database in that customer.
- iv. Easy to use complete GST billing software for all retailer
- v. A complete sweet shop billing software with all essential feature for automating your business and increasing your profit.

8.4 General Constraints

- i. Sweet shop software designed to streamline sweet shop billing, involuntary and more to increase profits
- ii. The system should have windows XP or above operating system. This project works well in PCs having VB.net and SQL Server installed properly.

9 Coding:-

```
from tkinter import *
import random
import datetime
import time
import tkinter.messagebox

root = Tk()
root.geometry("1300x750+0+0")
root.title("Sweets Shop")
root.configure(background = 'cyan')

text_Input = StringVar()
operator = ""

Tops = Frame(root,bg='cyan',bd=20,pady=5,relief=RIDGE)
Tops.pack(side=TOP)
lblTitle = Label(Tops,font=('pyparus',30),text="Shubham Sweet Shop Billing
System",bd=18,bg='white',fg='cyan',justify=CENTER)
lblTitle.grid(row=0,column=0)

Copyright = Label(root , bg = 'cyan',fg='white', width = 1200, font=('Arial',
10, 'bold') , text = '© 2020 Copyright. All Rights Reserved')
Copyright.pack(side = BOTTOM)

ReceiptCal F = Frame(root,bg='powder blue',bd=10,relief=RIDGE)
ReceiptCal F.pack(side=RIGHT)

Buttons_F=Frame(ReceiptCal F,bg='powder blue',bd=3,relief=RIDGE)
Buttons_F.pack(side=BOTTOM)

Cal_F=Frame(ReceiptCal_F,bg='powder blue',bd=6,relief=RIDGE)
Cal_F.pack(side=TOP)

Receipt F=Frame(ReceiptCal F,bg='powder blue',bd=4,relief=RIDGE)
Receipt F.pack(side=BOTTOM)

MenuFrame = Frame(root,bg='cyan',bd=10,relief=RIDGE)
MenuFrame.pack(side=LEFT)
```

```
def CostofItem():
    Item1=float(E_Samosa.get())
    Item2=float(E_Kachori.get())
    Item3=float(E_Lassi.get())
    Item4=float(E_G_Halwa.get())
    Item5=float(E_KK.get())
    Item6=float(E_Ladoo1.get())
    Item7=float(E_M_Cake.get())
    Item8=float(E_M_Barfi.get())
    Item9=float(E_M_Mawa.get())
    Item10=float(E_C_Drinks.get())
    Item11=float(E_Chips.get())
    Item12=float(E_Ladoo2.get())
    Item13=float(E_B_Sweets.get())
    Item14=float(E_Peda.get())
    Item15=float(E_Chach.get())
    Item16=float(E_Dhai.get())

    PriceofDrinks = (Item1*8) + (Item2*8) + (Item3*20) + (Item4*15) +
(Item5*200)+ (Item6*140) + (Item7*50) + (Item8*60)
    PriceofCakes = (Item9*15) + (Item10*20) + (Item11*5) + (Item12*90) +
(Item13*180) + (Item14*40) + (Item15*10) + (Item16*10)

    DrinksPrice = "Rs.",str('%.2f'%(PriceofDrinks))
    CakesPrice = "Rs.",str('%.2f'%(PriceofCakes))
    CostofCakes.set(CakesPrice)
    CostofDrinks.set(DrinksPrice)
    SC = "Rs.", str('%.2f'%(0))
    ServiceCharge.set(SC)

    SubTotalofITEMS = "Rs.",str('%.2f'%(PriceofDrinks + PriceofCakes + 0))
    SubTotal.set(SubTotalofITEMS)
```

```

def chM_Barfi():
    if (var8.get() == 1):
        txtM_Barfi.configure(state=NORMAL)
        txtM_Barfi.focus()
        txtM_Barfi.delete('0',END)
        E_M_Barfi.set("")
    elif (var8.get() == 0):
        txtM_Barfi.configure(state=DISABLED)
        E_M_Barfi.set("0")
def chG_Halwa():
    if (var4.get() == 1):
        txtG_Halwa.configure(state=NORMAL)
        txtG_Halwa.focus()
        txtG_Halwa.delete('0',END)
        E_G_Halwa.set("")
    elif (var4.get() == 0):
        txtG_Halwa.configure(state=DISABLED)
        E_G_Halwa.set("0")
def chKK():
    if (var5.get() == 1):
        txtKK.configure(state=NORMAL)
        txtKK.focus()
        txtKK.delete('0',END)
        E_KK.set("")
    elif (var5.get() == 0):
        txtKK.configure(state=DISABLED)
        E_KK.set("0")
def chLadoo():
    if (var6.get() == 1):
        txtLadoo.configure(state=NORMAL)
        txtLadoo.focus()
        txtLadoo.delete('0',END)
        E_Ladoo.set("")
    elif (var6.get() == 0):
        txtLadoo.configure(state=DISABLED)
        E_Ladoo.set("0")
def chDhai():
    if (var16.get() == 1):
        txtDhai.configure(state=NORMAL)
        txtDhai.focus()

```

```

txtSamosa =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_Samosa)
txtSamosa.grid(row=0,column=1)
txtKachori =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_Kachori)
txtKachori.grid(row=1,column=1)
txtLassi = Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state
= DISABLED,textvariable=E_Lassi)
txtLassi.grid(row=2,column=1)
txtG_Halwa =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_G_Halwa)
txtG_Halwa.grid(row=3,column=1)
txtKK = Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_KK)
txtKK.grid(row=4,column=1)
txtLadoo =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_Ladoo)
txtLadoo.grid(row=5,column=1)
txtM_Cake =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_M_Cake)
txtM_Cake.grid(row=6,column=1)
txtM_Barfi =
Entry(Drinks_F,font=('calibri',15),bd=7,width=6,justify=LEFT,state =
DISABLED,textvariable=E_M_Barfi)
txtM_Barfi.grid(row=7,column=1)
=====CAKES=====

```

```

DISPLAY=====#
def btnClick(numbers):
    global operator
    operator = operator + str(numbers)
    text_Input.set(operator)
def btnClear():
    global operator
    operator=""
    text_Input.set("")
def btnEquals():
    global operator
    sumup = str(eval(operator))
    text_Input.set(sumup)
    operator = ""

txtDisplay = Entry(Cal_F,
width=45,bg="white",bd=4,font=('Vrinda',12,'bold'),textvariable=text_Input,ju
stify=RIGHT)
txtDisplay.grid(row=0,column=0,columnspan=4,pady=1)
txtDisplay.insert(0,"0")
#=====Calcu
lator
Buttons=====
===#
btn7=Button(Cal_F,padx=16, pady=1,fg="powder blue",
font=('calibri',19,'bold'),width=4,text="7",
bg="white",command=lambda:btnClick(7)).grid(row=2,column=0)
btn8=Button(Cal_F,padx=16, pady=1,fg="powder blue",

```

```

-----#
btn1=Button(Cal_F,padx=16, pady=1,fg="powder blue",
font=('calibri',19,'bold'),width=4,text="1",
bg="white",command=lambda:btnClick(1)).grid(row=4,column=0)
btn2=Button(Cal_F,padx=16, pady=1,fg="powder blue",
font=('calibri',19,'bold'),width=4,text="2",
bg="white",command=lambda:btnClick(2)).grid(row=4,column=1)
btn3=Button(Cal_F,padx=16, pady=1,fg="powder blue",
font=('calibri',19,'bold'),width=4,text="3",
bg="white",command=lambda:btnClick(3)).grid(row=4,column=2)
btnMultiply=Button(Cal_F,padx=16, pady=1,fg="white",
font=('calibri',19,'bold'),width=4,text="x", bg="powder
blue",command=lambda:btnClick("*")).grid(row=4,column=3)
#-----#
-----#
btn0=Button(Cal_F,padx=16, pady=1,fg="white",
font=('calibri',19,'bold'),width=4,text="0", bg="powder
blue",command=lambda:btnClick(0)).grid(row=5,column=0)
btnClear=Button(Cal_F,padx=16, pady=1,fg="white",
font=('calibri',19,'bold'),width=4,text="C", bg="powder
blue",command=btnClear).grid(row=5,column=1)
btnEquals=Button(Cal_F,padx=16, pady=1,fg="white",
font=('calibri',19,'bold'),width=4,text="=", bg="powder
blue",command=btnEquals).grid(row=5,column=2)
btnDivision=Button(Cal_F,padx=16, pady=1,fg="white",
font=('calibri',19,'bold'),width=4,text="/", bg="powder
blue",command=lambda:btnClick("/")).grid(row=5,column=3)
#=====
=====#
root.mainloop()

```

10 Implementation of Coding:-

Shubham Sweet Shop Billing System

<input checked="" type="checkbox"/> Samosa	3
<input type="checkbox"/> Kachori	0
<input checked="" type="checkbox"/> Lassi	7
<input type="checkbox"/> Gajar Halwa	0
<input type="checkbox"/> Kaju Katli	0
<input type="checkbox"/> Ladoo(Besan)	0
<input type="checkbox"/> Milk Cake	0
<input type="checkbox"/> Mawa Barfi	0

<input type="checkbox"/> Misri Mawa	0
<input type="checkbox"/> Cold Drinks	0
<input type="checkbox"/> CHIPS	0
<input type="checkbox"/> Ladoo(Bundi)	0
<input type="checkbox"/> Bengali Sweets	0
<input type="checkbox"/> Doodh Peda	0
<input type="checkbox"/> Chach	0
<input type="checkbox"/> Dhai	0

Cost Of List1	Rs. 164.00	Paid Tax	Rs. 0.00
Cost Of List2	Rs. 0.00	Sub Total	Rs. 164.00
Service Charge	Rs. 0.00	Total Cost	Rs. 164.00

13

7	8	9	+
4	5	6	-
1	2	3	x
0	C	=	/

Receipt Ref:	SS7047 15/04/2023
Item:	Cost of Items
Samosa:	3
Kachori:	0
Lassi:	7
Halwa(Gajar):	0
Kaju Katli:	0
Ladoo(Besan):	0
Milk Cake:	0
Mawa Barfi:	0
Misri Mawa:	0
Cold Drinks:	0

Total
Receipt
Reset
Exit

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11 Features of Sweet Shop Billing System:-

- i. Profit growth will be sweeter by using confectionery and sweet shop billing software.
- ii. This sweet shop billing software will help traders to keep a track of payment modes and status.
- iii. The sweet pos will reconcile all payment modes and will notify user whether payment is due or not.
- iv. Just Billing sweet shop billing software ensures real-time connectivity among stores and central kitchen.
- v. So that, production can take place based on order and customer demand on the sweet.

12 Applications:-

- 1) Accounting
- 2) Legal
- 3) SAAS (software-as-a-service)
- 4) Retail+
- 5) Manufacturing
- 6) Recurring billing

13 Advantages :-

- i) Reduces material costing that comes with manual billing and filing.
- ii) Combined with external software that will help in smoother tracking of the business
- iii) Automatic update features keep business deals, changes, and offers in the loop within customers.
- iv) Helps in GST Tax calculation.

14 Disadvantages :-

It is not cost-effective for small scale business owners. Reaching offline customers who do not access the internet makes the process difficult

15 Future Scope:-

Reduce entry work. Easy retrieval of information. Reduce error due to less intervention. User friendly scheme to better data. Fast finding of information requested.

16 Conclusion:-

Sweet Shop Billing System is better in its flexibility. Ease of manipulation of information. Easy access of details in form of Receipt.

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