TEA SPILLERS | Billing System

A System Development Documentation
Submitted to the Faculty
of the Department of Information Technology
Cavite State University - Imus Campus
City of Imus, Cavite

In partial fulfillment of the requirements in the subject, DCIT 23 Computer Programming 2

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System Description

This GUI application called Tea Spillers is designed to provide a user-friendly interface for customers visiting a coffee shop. With this application, customers can easily enter their details, browse the available products, calculate the total price of their order, and generate a receipt.

System Features

Here are the features of Tea Spillers Billing System:

1. Login and Sign-Up Functionality:

- Users can log in using predefined usernames and passwords.
- Users can sign up to create a new account.

2. Menu Section:

- Display names and prices of different coffee items.
- Prices are read-only and cannot be directly edited.

3. Order Section:

- You can click the images of the products to add quantity of different drinks.
- It has minus buttons, trash buttons, and billing area.

4. Receipt Section:

- Display the final bill or order details.
- Supports scrolling for longer receipts.

5. Action Buttons:

- Calculate Total: Calculate the total bill amount based on the entered quantities.
- Receipt: Generate and display the bill or order details in the receipt area.
- Print: Print the receipt.
- Reset: Clear all entered quantities and the receipt area.
- Exit: Close the application or go back to the login screen.

These features collectively provide functionality for logging in, choosing quantities of

desserts and drinks, calculating the total bill, generating a receipt, and performing actions such as printing and resetting the order.

System Information

The system sets up a GUI application for a coffee shop where customers can enter their details, select products, calculate the total price, and print a receipt. The receipt can be displayed on the screen for the customer to review and, if desired, printed for their convenience.

System Future Suggestion

If you have any recommendations or face any problems while using the system, consider offering feedback to the system's creators or support team. Your suggestions can help us enhance the system for all users in the future.

System Codes

```
from tkinter import *
from tkinter import messagebox
from PIL import Image, ImageTk
from fpdf import FPDF
root = Tk()
root.title('Tea Spillers | Sign in')
root.geometry("951x500+300+200")
root.configure(bg="#fff")
root.resizable(False, False)
img = PhotoImage(file='logongteaspillers.png')
Label(root, image=img, bg='white').place(x=10, y=10)
coffee shop = 'Tea Spillers'
shop_address = 'Dream Villa Imus'
number = '930 870 0299'
message = 'May kape kana, may tsismis kapa. Arat na!'
import datetime
now = datetime.datetime.now()
date time = now.strftime("%Y-%m-%d %H:%M:%S")
receipt_complete = False
def login():
```

```
global selected option
   log = Toplevel()
   log.title("Tea Spillers")
   log.geometry("1355x650+100+140")
   log.resizable(width=False, height=False)
   frame = Frame(log, pady=250, padx=250)
   frame.pack()
   headerLabel = Label(log, text="Tea Spillers",
                     font=("times new roman", 30, "bold"),
bg="RosyBrown", bd=12, relief=GROOVE)
   headerLabel.pack(fill=X)
   customer Details Frame = LabelFrame(log, text="Customer Details",
                                   font=("times new roman", 15,
"bold"), bg="RosyBrown", bd=12, relief=GROOVE)
   customer Details Frame.pack(fill=X)
   cstmr name = Label(customer Details Frame, text="Nickname",
font=("times new roman", 15, "bold"), bg="RosyBrown")
   cstmr name.grid(row=0, column=0, padx=20, pady=5)
   cstmr = "Enter a nickname"
   cstmr_entry = Entry(customer_Details_Frame, font=('arial', 15),
bd=7, width=18)
   cstmr_entry.insert(0, cstmr)
   cstmr_entry.grid(row=0, column=1, padx=8)
   cstmr_entry.bind('<Button-1>', lambda event: delete_zero(event,
cstmr entry))
   phone num = Label(customer Details Frame, text="Phone No.",
font=('times new roman', 15, 'bold'),
                   bg='RosyBrown')
   phone_num.grid(row=0, column=2, padx=20, pady=5)
   phone = "Enter a number"
   phone num entry = Entry(customer Details Frame, font=('arial', 15),
bd=7, width=18)
   phone_num_entry.insert(0, phone)
   phone num entry.grid(row=0, column=3, padx=8)
   phone_num_entry.bind('<Button-1>', lambda event: delete_zero(event,
phone_num_entry))
   bill_num = Label(customer_Details_Frame, text="Status Type",
font=('times new roman', 15, 'bold'),
                  bg='RosyBrown')
   bill_num.grid(row=0, column=5, padx=20, pady=5)
   selected option = StringVar(customer Details Frame)
   # Create a list of options
   options = ["Student", "Regular", "N/A"]
   def check option(*args):
```

```
selected = selected option.get()
       if selected not in options:
           messagebox.showerror("Invalid User Type", "Please select a
valid User Type.")
           return
   # Set the default selected option
   selected_option.trace('w', check_option)
   # Create the OptionMenu widget
   option menu = OptionMenu(customer Details Frame, selected option,
*options)
   option_menu.config(width=25)
   option menu.grid(row=0, column=6)
   # Product Details
   prod_container = Frame(log)
   prod container.pack()
   product frame = LabelFrame(prod container, text="Menu",
                            font=("times new roman", 18, "bold"),
bd=8, relief=GROOVE, bg='RosyBrown', padx=25)
   product frame.grid(row=0,column=0, rowspan=1)
   def delete_zero(event, entry):
       entry.delete(0, 'end')
   origIcedCoffeePrice = 120.00
   origMatchaPrice = 145.00
   origAmericanoPrice = 160.00
   origCaffucinoPrice = 150.00
   cinnamonPrice = StringVar()
   churrosPrice = StringVar()
   muffinsPrice = StringVar()
   chocolatepiePrice = StringVar()
   cinnamonPrice.set(origIcedCoffeePrice)
   churrosPrice.set(origMatchaPrice)
   muffinsPrice.set(origAmericanoPrice)
   chocolatepiePrice.set(origCaffucinoPrice)
   def reset():
       # Clear other fields and variables
       cstmr entry.delete(0, END)
       matchaPrice.delete(0, END)
       textArea.config(state='normal')
       textArea.delete(1.0, END)
       textArea.config(state='disabled')
       americanoPrice.delete(0, END)
       caffucinoPrice.delete(0, END)
```

```
cstmr_entry.insert(0, cstmr)
       ice.set(0)
       matcha.set(0)
       americano0.set(0)
       caffucino0.set(0)
       global receipt complete
       receipt complete = False
       receiptButton.configure(state=DISABLED)
       # Reset the add_to_cart() functionality
       global total_price, billing_complete
       total_price = 0
       billing complete = False
       receipt text widget.config(state='normal')
       receipt_text_widget.delete('1.0', END)
       receipt text widget.config(state='disabled')
       CashAmt.place forget()
       paymentBtn.place forget()
       CashAmt.config(text="Cash:")
       textArea.config(state='normal')
       textArea.delete(1.0, END)
       textArea.config(state='disabled')
   def print():
       global receipt complete
       global cash_amount
       global payment_entry, selected_option
       # Check if the receipt is done
       if not receipt complete:
           messagebox.showerror("Error", "Please complete the receipt
first.")
           return
       p = Toplevel()
       p.title("Tea Spillers | Your Receipt")
       p.geometry("1001x550+300+170")
       p.resizable(width=False, height=False)
       p.configure(bg="#fff")
       img = PhotoImage(file='logongteaspillers.png')
       Label(p, image=img, border=0, bg='white').place(x=5, y=15)
       p_frame = Frame(p, width=350, height=390, bg='white')
       p_frame.place(x=550, y=10)
       receiptHeader = Label(p_frame, text='Please check your folder
for the updated receipt copy.', bg='white', fg="salmon3",
font=('Helvetica', 12, 'bold'), wraplength=340)
       receiptHeader.place(x=130, y=10)
       prod_container = Frame(p, bg="RosyBrown")
```

```
prod_container.place(x=540, y=70)
        receiptFrame = Frame(prod container, bd=8, relief=GROOVE,
bg='RosyBrown')
        receiptFrame.grid(row=0, column=5, padx=10)
        receiptArea = Label(receiptFrame, text="Bill Area",
font=('times new roman', 15, 'bold'), bd=8, relief=GROOVE,
                            bg='RosyBrown')
        receiptArea.pack(fill=X)
        scrollbar = Scrollbar(receiptFrame, orient=VERTICAL)
        scrollbar.pack(side=RIGHT, fill=Y)
        textArea = Text(receiptFrame, width=50, height=25,
yscrollcommand=scrollbar.set)
        textArea.pack()
        scrollbar.config(command=textArea.yview)
        totalFrame = LabelFrame(root, font=("times new roman", 15,
"bold"), bg="RosyBrown", bd=15, relief=GROOVE)
        totalFrame.pack(fill=X)
        buyer_name = cstmr_entry.get()
        phone_numm = phone_num_entry.get()
        textArea.config(state='normal')
        textArea.delete(1.0, END)
        receipt text =
'\t\t{}\n\t\t{}\n'.format(coffee_shop.title(),
shop_address.title(), number.title())
        textArea.insert(END, receipt_text)
        receipt_text1 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text1)
        receipt_text2 = f"{date_time[0:10]}\t\t\t\t{date_time[10:]}\n"
        textArea.insert(END, receipt_text2)
        if phone_numm.strip():
            receipt_phone = f"Customer no. {phone_numm}\n"
            textArea.insert(END, receipt_phone)
        else:
            receipt_phone1 = "Customer no.\n"
            textArea.insert(END, receipt_phone1)
        receipt_text3 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text3)
```

```
receipt text4 = '{}\n'.format(message.title())
        textArea.insert(END, receipt text4)
        receipt text5 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text5)
        receipt_text6 = "CAFE AND RESTAURANT\n\n"
        textArea.insert(END, receipt_text6)
        receipt_text7 = 'Quantity\t\tProduct Name\t\tProduct Price\n'
        textArea.insert(END, receipt text7)
        # Retrieve the quantities from Entry widgets
        iced coffee quantity = int(ice.get())
        matcha quantity = int(matcha.get())
        americano_quantity = int(americano0.get())
        caffucino_quantity = int(caffucino0.get())
        # Calculate the total price for each product
        iced_coffee_price = iced_coffee_quantity * origIcedCoffeePrice
        matcha_price = matcha_quantity * origMatchaPrice
        americano_price = americano_quantity * origAmericanoPrice
        caffucino_price = caffucino_quantity * origCaffucinoPrice
        # Include the quantities in the receipt if greater than zero
        if iced_coffee_quantity > 0:
            receipt_text8 = f'{iced_coffee_quantity}\t\tIced
Coffee\t\t{iced_coffee_price}\n'
            textArea.insert(END, receipt_text8)
        if matcha_quantity > 0:
            receipt_text9 =
f'{matcha_quantity}\t\tMatcha\t\t{matcha_price}\n'
            textArea.insert(END, receipt_text9)
        if americano_quantity > 0:
            receipt text10 =
f'{americano_quantity}\t\tAmericano\t\t{americano_price}\n'
            textArea.insert(END, receipt_text10)
        if caffucino_quantity > 0:
            receipt_text11 =
f'{caffucino_quantity}\t\tCaffucino\t\t{caffucino_price}\n'
            textArea.insert(END, receipt_text11)
        receipt_text21 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text21)
```

```
# Define the original prices as a dictionary
       original prices = {
            'Iced Coffee': 120.00,
           'Matcha': 145.00,
           'Americano': 160.00,
           'Caffucino': 150.00
       }
       # Convert the quantity values to integers
       try:
           iced_coffee_quantity = int(iced_coffee_quantity)
           matcha quantity = int(matcha quantity)
           americano_quantity = int(americano_quantity)
           caffucino_quantity = int(caffucino_quantity)
       except ValueError:
           messagebox.showerror("Valid Quantity Error", "Please enter
a valid quantity for each drink.")
           return
       # Calculate the subtotals
       iced_coffee_subtotal = iced_coffee_quantity *
original_prices['Iced Coffee']
       matcha_subtotal = matcha_quantity * original_prices['Matcha']
       americano_subtotal = americano_quantity *
original_prices['Americano']
       caffucino_subtotal = caffucino_quantity *
original_prices['Caffucino']
       # Calculate the total price
       total price = iced_coffee_subtotal + matcha_subtotal +
americano subtotal + caffucino subtotal
       # Calculate the discount based on the user type
       user_type = selected_option.get()
       discount = 0
       if user_type == "Student":
           discount = 0.05 # 5% discount for students
       elif user_type == "Regular":
           discount = 0.1 # 10% discount for regular users
   # Check if an option is selected
       if not selected option.get():
           textArea.delete(1.0, END) # Clear the textArea
           messagebox.showerror("Option Not Selected", "Please select
an option.")
           return
       # Apply the discount to the total price
       discounted_price = total_price - (total_price * discount)
       textArea.insert(END, receipt_text12)
       receipt_text13 = f'Discount: \t\t\t\t\t\t\discount * 100}%\n'
       textArea.insert(END, receipt_text13)
```

```
receipt_text14 = f'Discounted Price:
\t\t\t\t\t₱{discounted price:.2f}\n'
        textArea.insert(END, receipt text14)
        receipt text15 = ""
        payment method = selected option1.get()
        cash amount = 0.0 # Default value
        receiptButton.config(state=DISABLED)
        if payment_method == "Cash" and payment_entry:
            cash_amount = payment_entry.get()
            try:
                cash amount = float(cash amount)
            except ValueError:
                messagebox.showerror("Valid Cash Amount Error", "Please
enter a valid cash amount.")
                return
            receipt_text15 = f'Cash:\t\t\t\t\t\t\f\f\end{cash_amount:.2f}\n'
        receipt_text15 += f"Payment Method: \t\t\t\t\t
{payment_method}\n"
        textArea.insert(END, receipt_text15)
        receipt_text16 = ""
        if payment_method == "Cash" and cash_amount >=
discounted_price:
            change = cash_amount - discounted_price
            receipt_text16 = f'Change:\t\t\t\t\t\t\f\f\change:.2f\\n'
            textArea.insert(END, receipt_text16)
        receipt_text17 = f'Total:\t\t\t\t\t\t\f\f\discounted_price:.2f\\n'
        textArea.insert(END, receipt_text17)
        receipt_text18 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text18)
        if buyer_name != cstmr:
            ending_message = f"Thank you for buying {buyer_name}!"
        else:
            ending_message = f"Thank you for your purchase!"
        ending_message_1 = " Find out about Tea Spillers at
teaspillers.com!"
        ending_message_text = '{}\t\t\t{}'.format(ending_message_1,
ending_message)
        receipt_text19 = f"{ending_message_text}\n"
        textArea.insert(END, receipt_text19)
```

```
textArea.insert(END, receipt text20)
       textArea.config(state='disabled')
       receipt complete = True
       #Generating PDF
       pdf = FPDF()
       pdf.add_page()
       pdf.set_font("Arial", size=12)
       txt = (
           receipt text +
           receipt_text1 +
           receipt_text2 +
           receipt text3 +
           receipt phone +
           receipt_text4 +
           receipt_text5 +
           receipt text6 +
           receipt_text7 +
           receipt_text8 +
           receipt_text9 +
           receipt_text10 +
           receipt_text11 +
           receipt_text12 +
           receipt_text13 +
           receipt_text14 +
           receipt_text15 +
           receipt text16 +
           receipt_text18 +
           receipt_text19 +
           receipt_text20 +
           receipt_text21
       txt = textArea.get("1.0", "end")
       txt = txt.encode("latin-1", "replace").decode("latin-1")
       pdf.multi_cell(0,10, txt=txt)
       pdf.output("receipt.pdf")
       p.mainloop()
   Receipt Page
   def receipt():
       check_option()
       global receipt_complete, billing_complete, selected_option1
       buyer_name = cstmr_entry.get()
       phone_numm = phone_num_entry.get()
```

receipt_text20 = "=" * 50 + "\n"

```
textArea.config(state='normal')
       textArea.delete(1.0, END)
       receipt text =
'\t\t{}\n\t\t{}\n'.format(coffee shop.title(),
shop_address.title(), number.title())
       textArea.insert(END, receipt_text)
       receipt_text1 = "-" * 50 + "\n"
       textArea.insert(END, receipt_text1)
       receipt text2 = f"{date time[0:10]}\t\t\t\t{date time[10:]}\n"
       textArea.insert(END, receipt_text2)
       if phone numm.strip():
            receipt phone = f"Customer no. {phone numm}\n"
            textArea.insert(END, receipt_phone)
       else:
            receipt_phone1 = "Customer no.\n"
            textArea.insert(END, receipt_phone1)
       receipt text3 = "-" * 50 + "\n"
       textArea.insert(END, receipt_text3)
       receipt_text4 = '{}\n'.format(message.title())
       textArea.insert(END, receipt_text4)
       receipt_text5 = "-" * 50 + "\n"
       textArea.insert(END, receipt_text5)
       receipt_text6 = "CAFE AND RESTAURANT\n\n"
       textArea.insert(END, receipt_text6)
       receipt_text7 = 'Quantity\t\tProduct Name\t\tProduct Price\n'
       textArea.insert(END, receipt_text7)
       # Retrieve the quantities from Entry widgets
       iced_coffee_quantity = int(ice.get())
       matcha_quantity = int(matcha.get())
       americano_quantity = int(americano0.get())
       caffucino_quantity = int(caffucino0.get())
       # Calculate the total price for each product
       iced_coffee_price = iced_coffee_quantity * origIcedCoffeePrice
       matcha_price = matcha_quantity * origMatchaPrice
       americano_price = americano_quantity * origAmericanoPrice
       caffucino_price = caffucino_quantity * origCaffucinoPrice
```

```
# Include the quantities in the receipt if greater than zero
        if iced coffee quantity > 0:
            receipt text8 = f'{iced coffee quantity}\t\tIced
Coffee\t\t{iced_coffee_price}\n'
            textArea.insert(END, receipt text8)
        if matcha_quantity > 0:
            receipt_text9 =
f'{matcha_quantity}\t\tMatcha\t\t{matcha_price}\n'
            textArea.insert(END, receipt_text9)
        if americano quantity > 0:
            receipt_text10 =
f'{americano_quantity}\t\tAmericano\t\t{americano_price}\n'
            textArea.insert(END, receipt text10)
        if caffucino_quantity > 0:
            receipt_text11 =
f'{caffucino quantity}\t\tCaffucino\t\t{caffucino price}\n'
            textArea.insert(END, receipt_text11)
        receipt text18 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text18)
        # Define the original prices as a dictionary
        original prices = {
            'Iced Coffee': 120.00,
            'Matcha': 145.00,
            'Americano': 160.00,
            'Caffucino': 150.00
        }
        # Convert the quantity values to integers
        try:
            iced_coffee_quantity = int(iced_coffee_quantity)
            matcha_quantity = int(matcha_quantity)
            americano_quantity = int(americano_quantity)
            caffucino_quantity = int(caffucino_quantity)
        except ValueError:
            messagebox.showerror("Valid Quantity Error", "Please enter
a valid quantity for each drink.")
            return
        # Calculate the subtotals
        iced coffee subtotal = iced coffee quantity *
original_prices['Iced Coffee']
        matcha_subtotal = matcha_quantity * original_prices['Matcha']
        americano_subtotal = americano_quantity *
original_prices['Americano']
        caffucino_subtotal = caffucino_quantity *
original_prices['Caffucino']
```

```
# Calculate the total price
       total price = iced coffee subtotal + matcha subtotal +
americano subtotal + caffucino subtotal
       # Calculate the discount based on the user type
       user type = selected option.get()
       discount = 0
       if user_type == "Student":
           discount = 0.05 # 5% discount for students
       elif user type == "Regular":
           discount = 0.1 # 10% discount for regular users
       if not selected option.get():
           textArea.delete(1.0, END) # Clear the textArea
           messagebox.showerror("Option Not Selected", "Please select
an option.")
           return
       # Apply the discount to the total price
       discounted_price = total_price - (total_price * discount)
       textArea.insert(END, receipt_text12)
       receipt_text13 = f'Discount: \t\t\t\t\t\t\discount * 100}%\n'
       textArea.insert(END, receipt_text13)
       receipt text14 = f'Discounted Price:
\t\t\t\t\t₱{discounted_price:.2f}\n'
       textArea.insert(END, receipt_text14)
       receipt text15 = ""
       payment_method = selected_option1.get()
       cash_amount = 0.0 # Default value
       if payment_method == "Cash" and payment_entry:
           cash_amount = payment_entry.get()
           try:
               cash_amount = float(cash_amount)
           except ValueError:
               messagebox.showerror("Valid Cash Amount Error", "Please
enter a valid cash amount.")
               receiptButton.configure(state=NORMAL)
               return
           receipt_text15 = f'Cash:\t\t\t\t\t\t\t\t\f\f\eta\cash_amount:.2f\\n'
       receipt_text15 += f"Payment Method:
      \t\t\t\t\t{payment_method}\n"
       textArea.insert(END, receipt_text15)
```

```
if payment_method == "Cash" and cash_amount >=
discounted price:
            change = cash amount - discounted price
            receipt_text16 = f'Change:\t\t\t\t\t\t\f\f\change:.2f\\n'
            textArea.insert(END, receipt text16)
        receipt_text17 = f'Total:\t\t\t\t\t\t\f\f\discounted_price:.2f\\n'
        textArea.insert(END, receipt_text17)
        receipt_text18 = "-" * 50 + "\n"
        textArea.insert(END, receipt_text18)
        if buyer name != cstmr:
            ending_message = f"Thank you for buying {buyer_name}!"
        else:
            ending message = f"Thank you for your purchase!"
        ending_message_1 = " Find out about Tea Spillers at
teaspillers.com!"
        ending_message_text = '{}\t\t\t{}'.format(ending_message_1,
ending_message)
        receipt_text19 = f"{ending_message_text}\n"
        textArea.insert(END, receipt_text19)
        receipt_text20 = "=" * 50 + "\n"
        textArea.insert(END, receipt_text20)
        textArea.config(state='disabled')
        receipt complete = True
    # Desserts
    quantity1 = 0
    quantity2 = 0
    quantity3 = 0
    quantity4 = 0
    ice = StringVar()
    ice.set(str(quantity1))
   matcha = StringVar()
   matcha.set(str(quantity2))
    americano0 = StringVar()
    americano0.set(str(quantity3))
    caffucino0 = StringVar()
    caffucino0.set(str(quantity4))
      # Set an initial value for the StringVar
    def increment_quantity(quantity_var):
        current_quantity = int(quantity_var.get())
        new_quantity = current_quantity + 1
        quantity_var.set(str(new_quantity))
```

```
def decrement quantity(quantity var1):
        current quantity = int(quantity var1.get())
        if current_quantity > 0:
            new quantity = current quantity - 1
            quantity var1.set(str(new quantity))
    def reset quantities():
        global quantity1, quantity2, quantity3, quantity4
        global option label, payment entry
        quantity1 = 0
        ice.set(str(quantity1))
        quantity2 = 0
        matcha.set(str(quantity2))
        quantity3 = 0
        americano0.set(str(quantity3))
        quantity4 = 0
        caffucino0.set(str(quantity4))
    # Clear the receipt text
        receipt_text_widget.config(state="normal") # Set the state to
normal to enable modifications
        receipt_text_widget.delete("1.0", END) # Clear the text area
        receipt_text_widget.config(state="disabled") # Set the state
to disabled to make it read-only
        paymentBtn.place_forget()
        CashAmt.place_forget()
        CashAmt.config(text="Cash:")
    def create_options():
        global payment_entry, cash, billing_complete
        cash = Toplevel()
        cash.title("Tea Spillers | Payment Method")
        cash.geometry("900x500+300+200")
        cash.configure(bg="#fff")
        cash.resizable(width=False, height=False)
        img_path = 'logongteaspillers.png'
        image = Image.open(img_path)
        imguli = ImageTk.PhotoImage(image)
        label = Label(cash, image=imguli, bg='white')
        label.image = imguli # Save a reference to the image to
prevent it from being garbage collected
        label.place(x=10, y=10)
        receiptButton.config(state=DISABLED)
```

```
cash_frame = Frame(cash, width=350, height=420, bg='white')
        cash frame.place(x=550, y=50)
        payHeader = Label(cash frame, text='Payment Method',
fg="salmon3", bg='white', font=('Helvetica', 23, 'bold'))
        payHeader.place(x=70, y=20)
        totalis = Label(cash frame, text=f"Your Total Price is :
{total_price}", bg='white').place(x=40,y=120)
        global option label, payment entry, selected option1
        selected_option1 = StringVar(cash_frame)
   # Create a list of options
        option_label = Label(cash_frame, text="Type of
Payment:",bg="white").place(x=40,y=155)
        options = ["Cash", "E-Wallet(GCash)"]
    # Set the default selected option
        selected_option1.set(options[0])
        def option selected(*args):
            global payment_entry, gcash_entry
            selected = selected_option1.get()
            if selected == "Cash":
                textt = "Enter payment Amount..."
                payment_entry = Entry(cash_frame, font=("Arial", 12),
width=25)
                payment_entry.insert(0, textt)
                payment_entry.place(x=50, y=220)
                doneBtn = Button(cash_frame, text="Done", bg="salmon3",
command=done clicked).place(x=70, y=250)
                payment_entry.bind('<Button-1>', lambda event:
delete_zero(event, payment_entry))
            elif selected == "E-Wallet(GCash)":
                textt = "Enter 11-digit number..."
                gcash_entry = Entry(cash_frame, font=("Arial", 12),
width=25) # Use gcash_entry instead of payment_entry
                gcash_entry.insert(0, textt)
                gcash entry.place(x=50, y=220)
                doneBtn = Button(cash_frame, text="Done", bg="salmon3",
command=done_clicked).place(x=70, y=250)
                def delete text(event):
                    gcash_entry.delete(0, END)
                gcash_entry.bind('<Button-1>', delete_text)
                gcash_entry.bind('<FocusOut>', validate_gcash_number)
        def validate gcash number(event):
```

```
gcash_number = gcash_entry.get() # Use gcash_entry instead
of payment entry
            if len(gcash number) != 11 or not gcash number.isdigit():
                messagebox.showerror("Invalid GCash Number", "Please
enter a valid 11-digit GCash number.")
                gcash entry.delete(0, END)
                gcash entry.insert(0, "Enter 11-digit number...")
                cash_frame.focus_force()
                CashAmt.config(text="") # Clear the CashAmt label
            else:
                CashAmt.config(text="Paid by GCash") # Update the
CashAmt label
        def done_clicked():
            receiptButton.config(state=DISABLED)
            global cash_amt, total_price, payment_entry
            if selected_option1.get() == "Cash":
                cash amt = payment entry.get()
            elif selected_option1.get() == "E-Wallet(GCash)":
                cash_amt = gcash_entry.get()
            CashAmt.config(text=f"Cash: {cash_amt}")
            if CashAmt.cget("text") == "Cash: ": # Check if CashAmt
label text is empty
                receiptButton.config(state=DISABLED) # Disable the
receipt button
            else:
                try:
                    cash_amt = float(cash_amt)
                    if cash amt >= total price:
                        # Payment is sufficient, proceed with further
actions
                        cash.withdraw() # Hide the cash window
                    else:
                        # Insufficient payment, display error message
                        messagebox.showerror("Insufficient Payment",
"The payment amount is insufficient.")
                        if selected_option1.get() == "Cash":
                            payment_entry.delete(0, 'end') # Reset the
payment entry field
                            payment_entry.insert(0, "Enter payment
amount...")
                        elif selected option1.get() == "E-
Wallet(GCash)":
                            gcash_entry.delete(0, 'end') # Reset the
GCash entry field
```

```
gcash_entry.insert(0, "Enter 11-digit
number...")
                        CashAmt.config(text="") # Clear the CashAmt
label
                except ValueError:
                    # Invalid payment amount, display error message
                    messagebox.showerror("Invalid Payment", "Please
enter a valid payment amount.")
                    if selected_option1.get() == "Cash":
                        payment_entry.delete(0, 'end') # Reset the
payment entry field
                        payment_entry.insert(0, "Enter payment
amount...")
                    elif selected option1.get() == "E-Wallet(GCash)":
                        gcash entry.delete(0, 'end') # Reset the GCash
entry field
                        gcash_entry.insert(0, "Enter 11-digit
number...")
                    CashAmt.config(text="") # Clear the CashAmt label
            receiptButton.config(state=NORMAL) # Enable the receipt
button
    # Bind the option_selected function to the OptionMenu widget
        selected_option1.trace("w", option_selected)
    # Create the OptionMenu widget
        option_menu = OptionMenu(cash_frame, selected_option1,
*options)
        option_menu.config(width=20)
    # Place the OptionMenu widget below the receipt text widget
        option_menu.place(x=150,y=150)
        billing_complete = False
        #TotalFrame
    coffee_frame = Frame(prod_container)
    coffee_frame.grid(row=0, column=1, sticky="ns")
    drinks_frame = LabelFrame(coffee_frame, text="Billing Area",
font=("times new roman", 18, "bold"), bd=8,
                              relief=GROOVE, bg='RosyBrown', padx=0,
width=280, height=200)
    drinks frame.grid()
    receipt_text7 = 'Quantity\tProduct Name\t\tProduct Price\n'
```

```
receipt_text_widget = Text(drinks_frame, font=("Times New Roman",
12), bg="RosyBrown", width=38, height=18)
    receipt text widget.insert("1.0", receipt text7)
    paymentBtn = Button(drinks frame, text="Click here to select
payment method", bg="salmon3",command=create options)
    CashAmt = Label(drinks frame, text="Cash:",font=("Times New Roman",
12), bg="RosyBrown")
    receipt_text_widget.grid(padx=5, pady=10)
    original_prices = {
        'Iced Coffee': 120.00,
        'Matcha': 145.00,
        'Americano': 160.00,
        'Caffucino': 150.00
    }
    def add_to_cart():
        global total_price, billing_complete
        quantities = [int(ice.get()), int(matcha.get()),
int(americano0.get()), int(caffucino0.get())]
        products = ["Iced Coffee", "Matcha", "Americano", "Caffucino"]
        receipt_text = "Quantity\tProduct Name\t\tProduct Price\n"
        global total_price
        total_price = 0
        for i in range(len(quantities)):
            if quantities[i] > 0:
                product_name = products[i]
                quantity = quantities[i]
                product_price = original_prices[product_name]
                line_total = product_price * quantity
                receipt_text +=
f"{quantity}\t{product_name}\t\t{line_total:.2f}\n"
                total_price += line_total
        receipt_text += f"\nTotal Price: {total_price:.2f}"
        CashAmt.place(x=8,y=150)
        paymentBtn.place(x=70,y=180)
        billing_complete = TRUE
        receipt_text_widget.config(state="normal")
        receipt_text_widget.delete("1.0", END)
        receipt_text_widget.insert(END, receipt_text)
        receipt_text_widget.config(state="disabled")
```

```
#Menu
    cinnamonLabel = Button(product frame,
                          bg="beige", borderwidth=10,command=lambda:
increment quantity(ice))
    icedImg = PhotoImage(file="match.png")
    res = icedImg.subsample(2)
    cinnamonLabel.config(image=res, compound=LEFT)
    cinnamonLabel.config(width=70,height=50)
    cinnamonLabel.grid(row=1, column=0, sticky="w", padx=20)
    icedLabel = Label(product_frame, text="Iced Coffee", font=("times
new roman", 15, "bold"),
                         bg="RosyBrown")
    icedLabel.grid(row=1, column=1, sticky="w",padx=20)
   prodLabel = Label(product_frame, text="Products", font=('arial',
15, 'bold'), bg='RosyBrown').grid(row=0, column=1)
    priceLabel = Label(product_frame, text="Price", font=('arial', 15,
'bold'), bg='RosyBrown').grid(row=0,column=2)
   quantLabel = Label(product_frame, text="Quantity", font=('arial',
15, 'bold'), bg='RosyBrown').grid(row=0, column=3)
    cinnamonPriceEntry = Entry(product_frame, font=("arial", 15,),
bd=10, width=5, justify='center',
                               textvariable=cinnamonPrice,
state='readonly')
    cinnamonPriceEntry.grid(row=1, column=2, padx=10)
    icedCoffeePrice = Entry(product_frame, font=("arial", 15), bd=10,
width=3, justify='center', textvariable=ice)
    icedCoffeePrice.grid(row=1, column=3, padx=8, pady=8)
    icedCoffeePrice.bind('<Button-1>', lambda event: delete_zero(event,
icedCoffeePrice))
    minusBtn = Button(product_frame,text="-", bd=10, width=3,
justify='center', bg="tomato3",command=lambda:
decrement_quantity(ice)).grid(row=1, column=4)
    matchaLabel = Button(product_frame, font=("times new roman", 15,
"bold"),
                         bg="beige", borderwidth=10,command=lambda:
increment_quantity(matcha))
    matchaLabel.grid(row=2, column=0, sticky="w", padx=20)
   matchImg = PhotoImage(file="glass.png")
    res1 = matchImg.subsample(2)
```

```
matchaLabel.config(image=res1, compound=LEFT)
    matchaLabel.config(width=70, height=50)
   matchaaLabel = Label(product_frame, text="Matcha", font=("times new
roman", 15, "bold"),
                         bg="RosyBrown")
    matchaaLabel.grid(row=2, column=1, sticky="w", padx=20)
    matchaPriceEntry = Entry(product frame, font=("arial", 15), bd=10,
width=5, justify='center',
                              textvariable=churrosPrice,
state='readonly')
   matchaPriceEntry.grid(row=2, column=2, padx=10, pady=10)
    matchaPrice = Entry(product_frame, font=("arial", 15), bd=10,
width=3, justify='center', textvariable=matcha)
   matchaPrice.grid(row=2, column=3, padx=8, pady=8)
    matchaPrice.bind('<Button-1>', lambda event: delete_zero(event,
matchaPrice))
    minusBtn = Button(product_frame, text="-", bd=10, width=3,
justify='center', bg="tomato3",command=lambda:
decrement_quantity(matcha)).grid(row=2, column=4)
    AmericanoLabel = Button(product_frame, font=("times new roman", 15,
"bold"),
                         bg="beige", borderwidth=10,command=lambda:
increment quantity(americano0))
   AmericanoLabel.grid(row=3, column=0, sticky="w", padx=20)
    ameImg = PhotoImage(file="americano.png")
    res2 = ameImg.subsample(2)
   AmericanoLabel.config(image=res2, compound=LEFT)
   AmericanoLabel.config(width=70, height=50)
   AmeLabel = Label(product_frame, text="Americano", font=("times new
roman", 15, "bold"),
                         bg="RosyBrown")
    AmeLabel.grid(row=3, column=1, sticky="w", padx=20)
    muffinsPriceEntry = Entry(product_frame, font=("arial", 15), bd=10,
width=5, justify='center',
                              textvariable=muffinsPrice,
state='readonly')
   muffinsPriceEntry.grid(row=3, column=2, padx=10, pady=10)
```

```
americanoPrice = Entry(product_frame, font=("arial", 15), bd=10,
width=3, justify='center', textvariable=americano0)
    americanoPrice.grid(row=3, column=3, padx=8, pady=8)
    americanoPrice.bind('<Button-1>', lambda event: delete_zero(event,
americanoPrice))
    minusBtn = Button(product_frame, text="-", bd=10, width=3,
justify='center', bg="tomato3",command=lambda:
decrement_quantity(americano0)).grid(row=3, column=4)
    chocolatepieLabel = Button(product_frame, font=("times new roman",
15, "bold"),
                              bg="beige",
borderwidth=10,command=lambda: increment_quantity(caffucino0))
    chocolatepieLabel.grid(row=4, column=0, sticky="w", padx=20)
    cafImg = PhotoImage(file="coffee.png")
    res3 = cafImg.subsample(2)
    chocolatepieLabel.config(image=res3, compound=LEFT)
    chocolatepieLabel.config(width=70, height=50)
   CafLabel = Label(product_frame, text="Caffucino", font=("times new
roman", 15, "bold"),
                         bg="RosyBrown")
    CafLabel.grid(row=4, column=1, sticky="w", padx=20)
    chocolatepiePriceEntry = Entry(product_frame, font=("arial", 15),
bd=10, width=5, justify='center',
                                   textvariable=chocolatepiePrice,
state='readonly')
    chocolatepiePriceEntry.grid(row=4, column=2, padx=10, pady=10)
    caffucinoPrice = Entry(product_frame, font=("arial", 15), bd=10,
width=3, justify='center', textvariable=caffucino0)
    caffucinoPrice.grid(row=4, column=3, padx=8, pady=8)
    caffucinoPrice.bind('<Button-1>', lambda event: delete_zero(event,
caffucinoPrice))
    minusBtn = Button(product_frame, text="-", bd=10, width=3,
justify='center', bg="tomato3",command=lambda:
decrement_quantity(caffucino0)).grid(row=4, column=4)
    RemoveLabel = Button(product frame, font=("times new roman", 15,
"bold"),width=5,padx=5, pady=5,
bg="RosyBrown",command=reset_quantities, borderwidth=0)
    binImg = PhotoImage(file="bin.png")
    res5 = binImg.subsample(22)
    RemoveLabel.config(image=res5, compound=LEFT)
```

```
RemoveLabel.config(width=50,height=50)
   RemoveLabel.grid(row=5, column=4, sticky="w")
   addBtn = Button(product frame, text="Add", font=("times new roman",
15, "bold"), width=5, padx=5, pady=5, bg="beige",
command=add_to_cart).grid(row=5, column=3, sticky="w")
   receiptFrame = Frame(prod_container, bd=8, relief=GROOVE)
   receiptFrame.grid(row=0, column=2, padx=10, sticky='n')
   receiptArea = Label(receiptFrame, text="Click Receipt to view your
Bill", font=('times new roman', 15, 'bold'),
                      bd=8, relief=GROOVE)
   receiptArea.pack(fill=X)
   scrollbar = Scrollbar(receiptFrame, orient=VERTICAL)
   scrollbar.pack(side=RIGHT, fill=Y)
   textArea = Text(receiptFrame, width=50, height=20,
yscrollcommand=scrollbar.set)
   textArea.pack()
   scrollbar.config(command=textArea.yview)
   totalFrame = LabelFrame(log, font=("times new roman", 15, "bold"),
bg="RosyBrown", bd=15, relief=GROOVE, height=50)
   totalFrame.pack(fill=X)
   def Exit():
       result = messagebox.askyesnocancel("Billing System", "Do you
want to order again?")
       if result is None:
           return # User clicked on the 'Cancel' button, do nothing
       elif result:
           log.withdraw() # Destroy the current window
           log.deiconify() # Show the login window again
           reset()
           entry1.config(show="")
       else:
           log.withdraw()
           root.deiconify()
          reset()
           entry1.config(show="")
```

```
totalButton = Button(totalFrame, text="Total", font=("times new
roman", 15, "bold"), bg="beige", fg="black",
                        width=10, padx=5, pady=5, command=add to cart)
   totalButton.grid(row=0, column=0, padx=80, pady=10)
   billing complete = False
    receiptButton = Button(totalFrame, text="Receipt", font=("times new
roman", 15, "bold"), bg="beige", fg="black",
                         width=10, padx=5, pady=5, command=receipt,
state=DISABLED)
    receiptButton.grid(row=0, column=1, padx=50, pady=10)
   printButton = Button(totalFrame, text="Print", font=("times new
roman", 15, "bold"), bg="beige", fg="black",
                        width=10, padx=5, pady=5, command=print)
   printButton.grid(row=0, column=2, padx=50, pady=10)
    resetButton = Button(totalFrame, text="Reset", command=reset,
font=("times new roman", 15, "bold"), bg="beige",
                        fg="black", width=10, padx=5, pady=5)
    resetButton.grid(row=0, column=3, padx=50, pady=10)
   exitButton = Button(totalFrame, text="Exit", command=Exit,
font=("times new roman", 15, "bold"), bg="beige",
                       fg="black", width=10, padx=5, pady=5)
   exitButton.grid(row=0, column=4, padx=50, pady=10)
    log.mainloop()
# Creating Label, Entries, and button
user_accounts = {
   "user": "Admin12345",
    "1": "2"
}
def reset():
   entry.delete(0, END)
   entry.insert(0, "Username") # Set the default username value
   entry1.delete(0, END)
   entry1.insert(0, "Password") # Set the default password value
def signin():
   entered username = entry.get()
   entered_password = entry1.get()
   if entered_username in user_accounts and
user_accounts[entered_username] == entered_password:
       messagebox.showinfo("Login", "You have successfully log in!")
       root.withdraw()
```

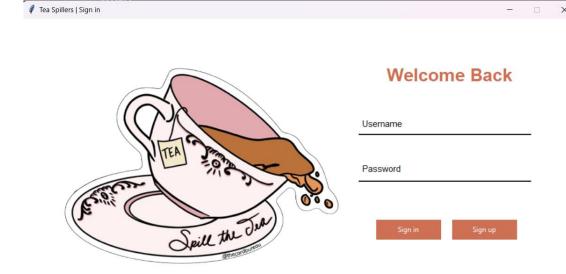
```
reset()
       login()
   else:
       messagebox.showerror("Login", "Invalid username or password.")
       reset()
# LOGIN
def clear_username(event):
   entry.delete(0, END)
def clear_password(event):
   entry1.delete(0, END)
   entry1.config(show="*")
frame = Frame(root, width=350, height=350, bg='white')
frame.place(x=550, y=70)
signinHeader = Label(frame, text='Welcome Back', fg="salmon3",
bg='white', font=('Helvetica', 23, 'bold'))
signinHeader.place(x=70, y=5)
entry = Entry(frame, width=25, fg='black', border=0, bg='white',
font=('Helvetica', 11))
entry.place(x=30, y=100)
entry.insert(0, 'Username')
entry.bind("<Button-1>", clear_username)
Frame(frame, width=295, height=2, bg='black').place(x=25, y=127)
entry1 = Entry(frame, width=25, fg='black', border=0, bg='white',
font=('Helvetica', 11))
entry1.place(x=30, y=177)
entry1.insert(0, 'Password')
entry1.bind("<Button-1>", clear_password)
Frame(frame, width=295, height=2, bg='black').place(x=25, y=207)
SigninBtn = Button(frame, width=15, pady=7, text='Sign in',
bg='salmon3', fg='white', border=0, command=signin).place(
   x=55, y=274)
def signupp():
   root.withdraw()
   signup = Toplevel()
   signup.title("Sign up | Tea Spillers")
   signup.geometry("951x550+300+200")
   signup.resizable(width=False, height=False)
```

```
signup.configure(bg="#fff")
    def create account():
        entered username = user.get()
        entered_password = password.get()
        entered email = email.get()
        entered_confirm_password = password1.get()
        if entered_username == "" or entered password == "" or
entered_email == "" or entered_confirm_password == "":
            messagebox.showerror("Registration", "Please fill in all
the fields.")
        elif entered_password != entered_confirm_password:
            messagebox.showerror("Registration", "Passwords do not
match.")
            password.config(show="")
            password1.config(show="")
            reset1()
            signup.deiconify()
        elif not is_password_strong(entered_password):
            messagebox.showerror("Registration", "Password is not
strong enough.")
            password.config(show="")
            password1.config(show="")
            reset1()
        elif entered_username in user_accounts:
            messagebox.showerror("Registration", "Account already
exists with this username.")
            password1.config(show="")
            reset1()
        else:
            user_accounts[entered_username] = entered_password
            messagebox.showinfo("Registration", "Account created
successfully! You can now log in.")
            signup.withdraw()
            root.deiconify()
   def is password strong(password):
        # Check if password meets the required strength criteria
        # At least 8 characters long, contains at least one uppercase
letter, one lowercase letter, and one digit
        if len(password) < 8:</pre>
            return False
        has_lowercase = False
        has uppercase = False
        has_digit = False
        for char in password:
            if char.islower():
```

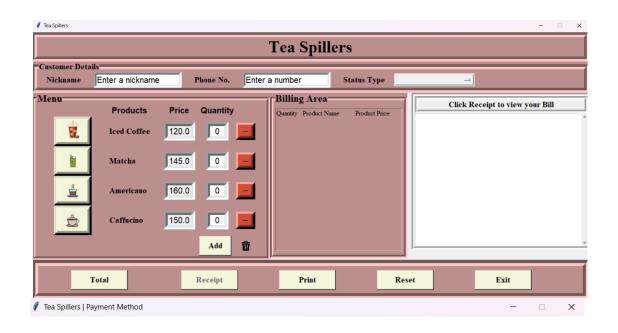
```
has_lowercase = True
            elif char.isupper():
                has uppercase = True
            elif char.isdigit():
                has digit = True
        return has_lowercase and has_uppercase and has_digit
    img_signup = PhotoImage(file='logongteaspillers.png')
    Label(signup, image=img_signup, border=0, bg='white').place(x=20,
y=20)
    signup frame = Frame(signup, width=350, height=420, bg='white')
    signup_frame.place(x=550, y=50)
    signinHeader = Label(signup frame, text='Create Account',
fg="salmon3", bg='white', font=('Helvetica', 23, 'bold'))
    signinHeader.place(x=70, y=20)
    def clear username1(event):
        user.delete(0, END)
   def clear_email1(event):
        email.delete(0, END)
    def clear_password1(event):
        password.delete(0, END)
        password.config(show="*")
   def clear confirmpassword1(event):
        password1.delete(0, END)
        password1.config(show="*")
    def reset1():
        user.delete(0, END)
        user.insert(0, "Username")
        email.delete(0, END)
        email.insert(0, "Email")
        password.delete(0, END)
        password.insert(0, "Password")
        password1.delete(0, END)
        password1.insert(0, "Confirm Password")
    user = Entry(signup_frame, width=25, fg='black', border=0,
bg='white', font=('Helvetica', 11))
    user.place(x=30, y=80)
    user.insert(0, 'Username')
    user.bind("<Button-1>", clear_username1)
```

```
Frame(signup_frame, width=295, height=2, bg='black').place(x=25,
y=117)
    email = Entry(signup_frame, width=25, fg='black', border=0,
bg='white', font=('Helvetica', 11))
    email.place(x=30, y=150)
    email.insert(0, 'Email')
    email.bind("<Button-1>", clear_email1)
    Frame(signup_frame, width=295, height=2, bg='black').place(x=25,
y=187)
    password = Entry(signup_frame, width=25, fg='black', border=0,
bg='white', font=('Helvetica', 11))
    password.place(x=30, y=220)
    password.insert(0, 'Password')
    password.bind("<Button-1>", clear_password1)
    Frame(signup frame, width=295, height=2, bg='black').place(x=25,
y = 257)
    password1 = Entry(signup_frame, width=25, fg='black', border=0,
bg='white', font=('Helvetica', 11))
    password1.place(x=30, y=290)
    password1.insert(0, 'Confirm Password')
    password1.bind("<Button-1>", clear_confirmpassword1)
    Frame(signup_frame, width=295, height=2, bg='black').place(x=25,
y = 327)
    Label(signup_frame, text="The password should be at least 8
characters, 1 uppercase, 1 lowercase, and 1 digit.", font=('Arial', 8),
bg="white", wraplength=305).place(x=25, y=330)
    SubmitBtn = Button(signup_frame, width=15, pady=7, text='Submit',
bg='salmon3', fg='white', border=0,
                       command=create_account)
   SubmitBtn.place(x=45, y=389)
   def cancel():
        signup.withdraw()
        reset()
       root.deiconify()
       reset()
        entry1.config(show="")
    CancelBtn = Button(signup_frame, width=15, pady=7, text='Cancel',
bg='salmon3', fg='white', border=0,
```

System Output

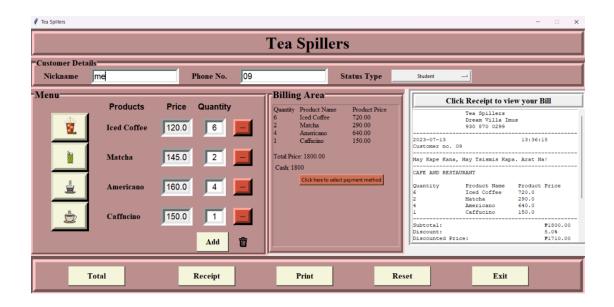


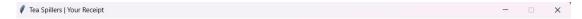












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