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SCHOOL OF INFORMATION SCIENCE

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

DIPLOMA IN LIBRARY INFORMATICS (CDIM144)

PROGRAMMING FOR LIBRARIES

(IML208)

REPORT ON INDIVIDUAL PROJECT:

TIKITAKA CAFÉ SYSTEM

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SUBMISSION DATE:

17TH JANUARY 2024

PROJECT NAME:

TIKITAKA CAFE SYSTEM

FILE NAME:

TIKITAKACAFESYSTEM.py

ACKNOWLEDGEMENT

We want to start by expressing our heartfelt gratitude to The Almighty God for His help and mercy in enabling us to complete this assignment. Without His willingness and guidance, we wouldn't have been able to accomplish it. We are truly grateful for His blessings throughout this journey. We would also like to extend a special thank you to our lecturer, Sir Firdaus for his constant support and guidance. His expertise and dedication were instrumental in helping us navigate through the assignment. We are truly thankful for his patience and willingness to answer our questions, which greatly contributed to our understanding of the subject matter.

Furthermore, we want to acknowledge the assistance and support we received from our classmates in KCDIM1443C. Their advice, motivation, and availability played a significant role in our successful completion of the assignment. Whenever we faced difficulties or had questions, they were always ready to lend a helping hand. We are truly grateful for their camaraderie and collaborative spirit.

Lastly, we would like to express our sincere appreciation to University Technology Mara (UITM) Cawangan Kedah for providing us with the opportunity to undertake this writing report assignment. The resources and facilities available at the university were crucial in conducting research and gathering relevant information. We are thankful for the education and experiences we have gained from UITM, which have contributed immensely to our academic and personal growth.

TABLE OF CONTENT

ACKNOWLEDGEMENT	i
TABLE OF CONTENT	ii
1.0 BACKGROUND OF THE SYSTEM	1
2.0 PROBLEM STATEMENT	1
3.0 FLOWCHART AND PSEUDOCODE	2
4.0 STRENGTH OF THE SYSTEM	4
5.0 KAIZEN (ROOM OF IMPROVEMENT)	5
6.0 GRAPHIC USER INTERFACE (GUI)	6
7.0 RESULT OF THE SYSTEM	6
8.0 PROMPT DATA	13
9.0 FUNCTION DATA	13
10.0 CONDITIONAL STATEMENT	13

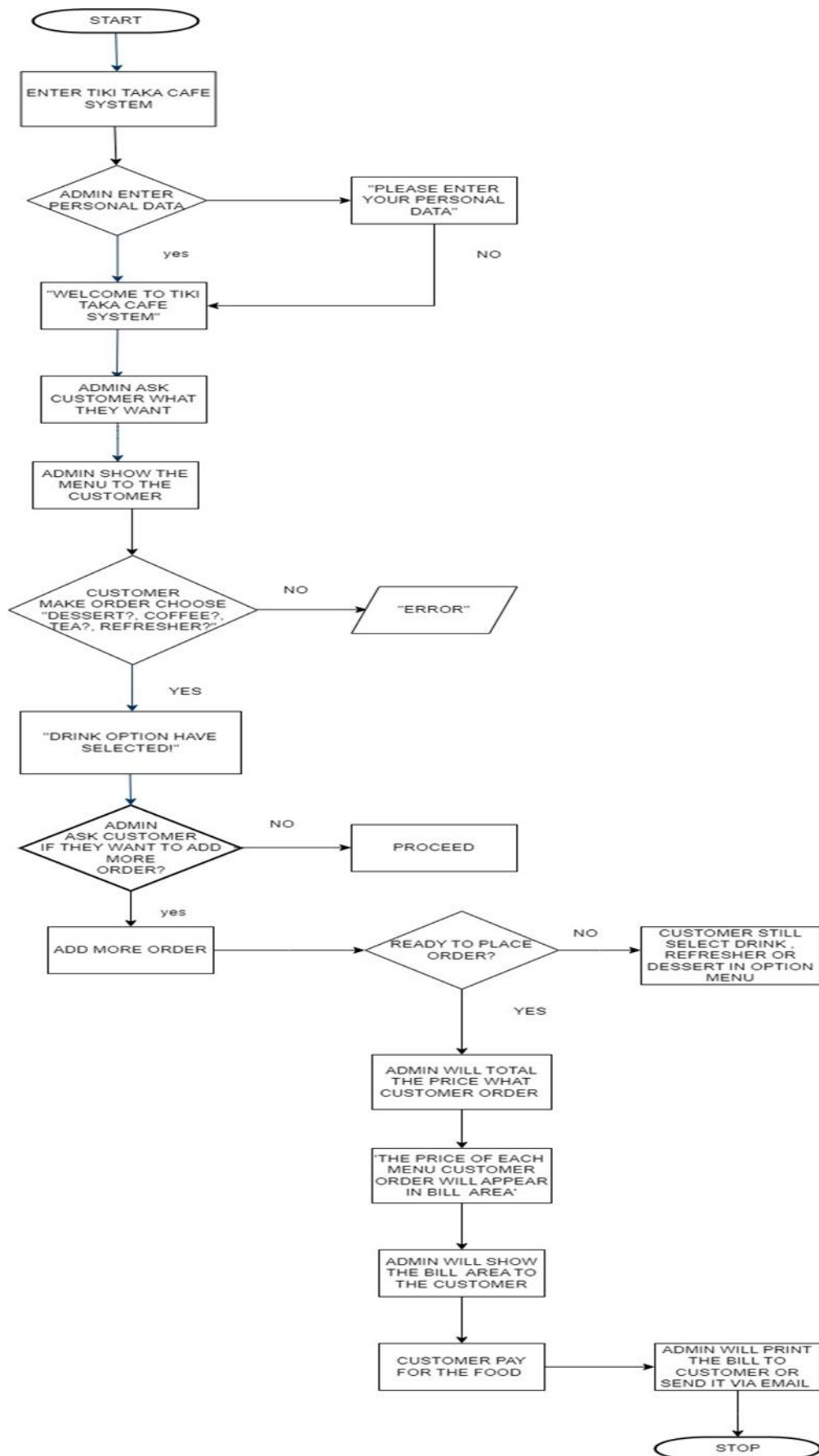
1.0 BACKGROUND OF THE SYSTEM

The TIKITAKA café system is a web-based tool that primarily focus on how admin manage the order of the food and beverage to the customer. Smoothies, coffee, desserts, and so on are a few examples. Admin are first required to enter customer's personal data, like name and phone number to take an order. Additionally, admin can utilize this system to place customer's orders and choose the menu they want. It is also easy for admin calculate the price through this system because it will automatically calculate the entire cost of the customer's purchases including the tax. Admin and customer are two components that make up the system. Apart from that, admin will send the receipt to the customer via email or print. Customers just need to enter their email address, and admin will send it to them. Admin also can search the receipt by entering the bill number and the receipt will view in the bill area.

2.0 PROBLEM STATEMENT

1. Difficult to track back-order menu due to doesn't have any bill number.
2. Lack of organized ordering system causing difficulties in record management.
3. Inefficient payment calculation leading to the profit loss.

3.0 FLOWCHART AND PSEUDOCODE



START

ENTER TIKI TAKA CAFÉ SYSTEM

ADMIN ENTER PERSONAL DATA

IF NO

"PLEASE ENTER YOUR PERSONAL DATA"

IF YES

"WELCOME TO TIKI TAKA CAFÉ SYSTEM"

ADMIN ASK CUSTOMER WHAT THEY WANT

ADMIN SHOW THE MENU TO THE CUSTOMER

CUSTOMER MAKE ORDER CHOOSE "DESSERT?, COFFEE?, TEA?, REFRESHER?"

IF NO

"OUTPUT: ERROR"

IF YES

"DRINK OPTION HAVE SELECTED!"

ADMIN ASK CUSTOMER IF THEY WANT TO ADD MORE ORDER

IF NO

PROCEED

IF YES

"ADD MORE ORDER AND QUANTITY"

READY TO PLACE ORDER?

IF NO

"CUSTOMER STILL SELECT DRINK, REFRESHER OR DESSERT IN OPTION MENU"

IF YES

"ADMIN WILL TOTAL THE PRICE WHAT CUSTOMER ORDER"

"THE PRICE OF EACH MENU CUSTOMER ORDER WILL APPEAR IN BILL AREA"

"ADMIN WILL SHOW THE BILL AREA TO THE CUSTOMER"

"CUSTOMER PAY FOR THE FOOD"

"ADMIN WILL PRINT THE BILL TO CUSTOMER OR SEND IT VIA EMAIL"

STOP

4.0 STRENGTH OF THE SYSTEM

1. Colourful styling for visual appeal

The programme looks better since buttons, entry widgets, and labels have vibrant styling. The user experience may be enhanced by this attention to design.

2. Readability of Data

The pricing of each meal and drink that a customer order will be shown in the bill area of this Tiki-Taka café system.

3. Dropdown Selections Option Menu

Users can choose from established alternatives in a convenient and visually appealing way by using the Option Menu for food, drink they want and quantity.

4. Verification and Error Management

Before submitting the order, the programme incorporates validation tests to make sure that all required fields are filled out. When there are problems, error messages give users helpful feedback.

5. Functionality:

Expense tracking, tax calculation, and email notification capability are all demonstrated by your code. Also, taxes and costs seem to be computed using the right rationale.

5.0 KAIZEN (ROOM OF IMPROVEMENT)

1. GUI Design:

Maybe next time we can use a more streamlined, contemporary GUI design if possible. We would like to consider enhancing our GUI system to make it more visually appealing with use of different colours, fonts, or images, or even use a GUI library that provides more advanced widgets.

2. Error Handling:

Put in place stronger error-handling procedures. For example, give users clear error warnings and respond more tactfully to unexpected problems.

3. Security Consideration:

Security should always be considered when working with user input or other services. Inputs should be cleaned, sensitive data should be handled securely, and secure coding best practices should be followed. By any chance, we want to make user accounts which we could add user accounts with different permissions. Thus, our system will be more secure.

4. Gmail verification improvement

As every time we need send the data, we always need to do 2 step verification. Therefore, we think we need to set up our café personal Gmail account which is make user easier and quickly send the data through the email without 2 step verification.

6.0 GRAPHIC USER INTERFACE (GUI) – YES

The screenshot shows the 'Tiki Taka Cafe' application window. The title bar reads 'Tiki Taka Cafe System'. The main header is a dark blue bar with the text 'Tiki Taka Cafe' in yellow. Below the header is a section titled 'CUSTOMER DETAILS' in red. It contains three input fields: 'Name', 'Phone Number', and 'Bill Number', each followed by a text box. To the right of these fields is a 'SEARCH' button. Below the 'CUSTOMER DETAILS' section are three columns of menu items, each with a quantity input field set to '0'. The first column is titled 'REFRESHERs' and includes Watermelon Sparkle, Mojito Lime, Cooling Mint, Blue Moon, Pop Soda Berry, and Grass Honey. The second column is titled 'COFFEES' and includes Ca Macci, Matcha Whimp, Berry Cano, Vanilla Fe Te, Cookies Moc, and Seasalt Fe. The third column is titled 'DESSERTs' and includes Moni Roll, Croissant, Macaroon, Egg Tart, Croffle, and Pancake. To the right of these columns is a large white area labeled 'Bill Area'. Below the menu items is a 'BILL MENU' section with input fields for 'Refresher Price', 'Refresher Tax', 'Coffee Price', 'Coffee Tax', 'Dessert Price', and 'Dessert Tax'. At the bottom right of the 'BILL MENU' section are five buttons: 'Total', 'Bill', 'Email', 'Print', and 'Clear'.

Figure 1.0: Interface of the system

7.0 RESULT OF THE SYSTEM

1. Admin can enter the details such as name and phone number in “Customer Details” section.

This screenshot shows the same 'Tiki Taka Cafe' application window, but with the 'CUSTOMER DETAILS' section filled out. The 'Name' field now contains 'Nedlyna' and the 'Phone Number' field contains '0187652835'. The 'Bill Number' field remains empty. The 'SEARCH' button is still present. The menu items and the 'BILL MENU' section are identical to the previous screenshot.

Figure 2.0: “Customer Details” are filled by admin

- After admin fill the customer details, admin will choose any menu in “Refresher”, “Coffee” and “Desserts” section based on customer option.

Tiki Taka Cafe

CUSTOMER DETAILS

Name: Nedlyna Phone Number: 0187652835 Bill Number: SEARCH

REFRESHERs

Watermelon Sparkle	<input type="text" value="0"/>
Mojito Lime	<input type="text" value="0"/>
Cooling Mint	<input type="text" value="0"/>
Blue Moon	<input type="text" value="1"/>
Pop Soda Berry	<input type="text" value="0"/>
Grass Honey	<input type="text" value="4"/>

COFFEES

Ca Macchi	<input type="text" value="5"/>
Matcha Whimp	<input type="text" value="0"/>
Berry Cano	<input type="text" value="2"/>
Vanilla Fe Te	<input type="text" value="0"/>
Cookies Moc	<input type="text" value="0"/>
Seasalt Fe	<input type="text" value="2"/>

DESSERTs

Moni Roll	<input type="text" value="0"/>
Croissant	<input type="text" value="0"/>
Macaroon	<input type="text" value="0"/>
Egg Tart	<input type="text" value="0"/>
Croffle	<input type="text" value="8"/>
Pancake	<input type="text" value="6"/>

Bill Area

BILL MENU

Refresher Price	<input type="text"/>	Refresher Tax	<input type="text"/>
Coffee Price	<input type="text"/>	Coffee Tax	<input type="text"/>
Dessert Price	<input type="text"/>	Dessert Tax	<input type="text"/>

Total Bill Email Print Clear

Figure 3.0: User choose the menu

- Then, after admin click total button, price for refresher, coffee and dessert will be total up including with tax for each section.

Tiki Taka Cafe

CUSTOMER DETAILS

Name: Nedlyna Phone Number: 0187652835 Bill Number: SEARCH

REFRESHERs

Watermelon Sparkle	<input type="text" value="0"/>
Mojito Lime	<input type="text" value="0"/>
Cooling Mint	<input type="text" value="0"/>
Blue Moon	<input type="text" value="1"/>
Pop Soda Berry	<input type="text" value="0"/>
Grass Honey	<input type="text" value="4"/>

COFFEES

Ca Macchi	<input type="text" value="5"/>
Matcha Whimp	<input type="text" value="0"/>
Berry Cano	<input type="text" value="2"/>
Vanilla Fe Te	<input type="text" value="0"/>
Cookies Moc	<input type="text" value="0"/>
Seasalt Fe	<input type="text" value="2"/>

DESSERTs

Moni Roll	<input type="text" value="0"/>
Croissant	<input type="text" value="0"/>
Macaroon	<input type="text" value="0"/>
Egg Tart	<input type="text" value="0"/>
Croffle	<input type="text" value="8"/>
Pancake	<input type="text" value="6"/>

Bill Area

BILL MENU

Refresher Price	RM100	Refresher Tax	RM40.0
Coffee Price	RM206	Coffee Tax	RM82.4
Dessert Price	RM280	Dessert Tax	RM112.0

Total Bill Email Print Clear

Figure 4.0: The total price of refresher, coffee and dessert

- Next, admin need to click bill button and the message box “ Do you want to save the bill?” will appear.

The screenshot shows the Tiki Taka Cafe System interface. At the top, the title "Tiki Taka Cafe" is displayed. Below it, the "CUSTOMER DETAILS" section includes fields for Name (Nedlyna), Phone Number (0187652835), and Bill Number, along with a SEARCH button. The main area is divided into three columns: REFRESHERS, COFFEES, and DESSERTS, each with a list of items and their quantities. A "BILL AREA" section on the right displays the Bill Number (655), Customer Name (Nedlyna), and Phone Number (0187652835). Below this, a table lists the items ordered: Blue Moon (1), Grass Honey (4), Caramel Macchiato (5), Berry Cano (2), Sea Salt Creame (2), Croffle (8), and Pancake (6), along with their respective prices and a Refresher Tax of RM40.0. A "BILL MENU" section at the bottom shows the total prices and taxes for each category. A confirmation dialog box is overlaid on the interface, asking "Do you want to save the bill?" with "Yes" and "No" buttons.

Figure 5.0: The message box “Do you want to save the bill?” are shown

- If admin click “Yes”, the message box “ Bill numberXXX is saved succesfully !” will appear and it will auto save in “Bill Area” ,and if admin click “No” then nothing happen.

The screenshot shows the Tiki Taka Cafe System interface after the bill has been saved successfully. The layout is identical to Figure 5.0, but the confirmation dialog box is replaced by a "Success" message box stating "bill number655 is saved successfully" with an "OK" button. The "BILL AREA" section on the right now displays the saved Bill Number (655) and the same customer details and item list as before.

Figure 6.0: The bill receipt saved successfully in the “Bill Area”

- After done click yes or no for the save receipt bill, this will show up. If admin want to print the receipt, admin can click the print button.

The screenshot shows the 'Tiki Taka Cafe' application window. At the top, there's a header with the cafe's name. Below it, a 'CUSTOMER DETAILS' section contains input fields for Name (Nedlyna), Phone Number (0187652835), and Bill Number, along with a SEARCH button. The main area is divided into three columns: REFRESHERS, COFFEES, and DESSERTS, each with a list of items and their respective quantities. To the right, a 'Bill Area' section displays the bill details, including the Bill Number (655), Customer Name (Nedlyna), and Phone Number (0187652835). Below this, a table lists the products, quantities, and prices. At the bottom, a 'BILL MENU' section shows the total prices for refreshers, coffee, and desserts, along with their respective taxes. A row of buttons (Total, Bill, Email, Print, Clear) is located at the bottom right, with the 'Print' button highlighted by a red box and an arrow pointing to it.

Figure 7.0: Admin need to click print button to print receipt

- After admin click the print button, the receipt will show up in notes.

The screenshot shows the 'Tiki Taka Cafe' application window with a notes window open in the foreground. The notes window displays the bill receipt for Bill Number 655, Customer Name Nedlyna, and Phone Number 0187652835. The receipt includes a table of products, quantities, and prices, as well as a summary of the total bill (RM820.4) and taxes. The notes window is titled '655' and has a menu bar with File, Edit, and View options. The background application window shows the same interface as Figure 7.0, but the 'Print' button is no longer highlighted.

Figure 8.0: The bill receipt is shown in the notes

8. Additionally, admin can send the receipt to email by clicking the email button. Admin need to fill the sender's details such as sender email and password and admin also need to fill the recipient's email to send the receipt to customer. Then, click send button.

The screenshot shows the 'Tiki Taka Cafe' system interface. A modal form for sending an email is open, with fields for 'SENDER' (Email: nuredlynarania@gmail.com, Password: *****), 'RECIPIENT' (Email Address: lavenderblo0mss14@gmail), and a 'Message' field containing a bill receipt. The 'SEND' button is highlighted with a red box. In the background, the main interface shows a 'DESSERTS' menu with items like Moon Roll, Croissant, Macaroon, Egg Tart, Croffle, and Pancake, and a 'Bill Area' displaying a receipt for Bill Number 655, Customer Name Nedlyna, and Phone Number 0187652835. The receipt lists items like Blue Moon, Grass Honey, Caramel Macchiato, Berry Cano, Sea Salt Creame, Croffle, and Pancake with their quantities and prices, totaling RM280.00 for desserts and RM112.00 for taxes, with a total bill of RM392.00.

Figure 9.0: Bill receipt will be sent through email

9. As we can see here, the customer successfully received the receipt file through email.

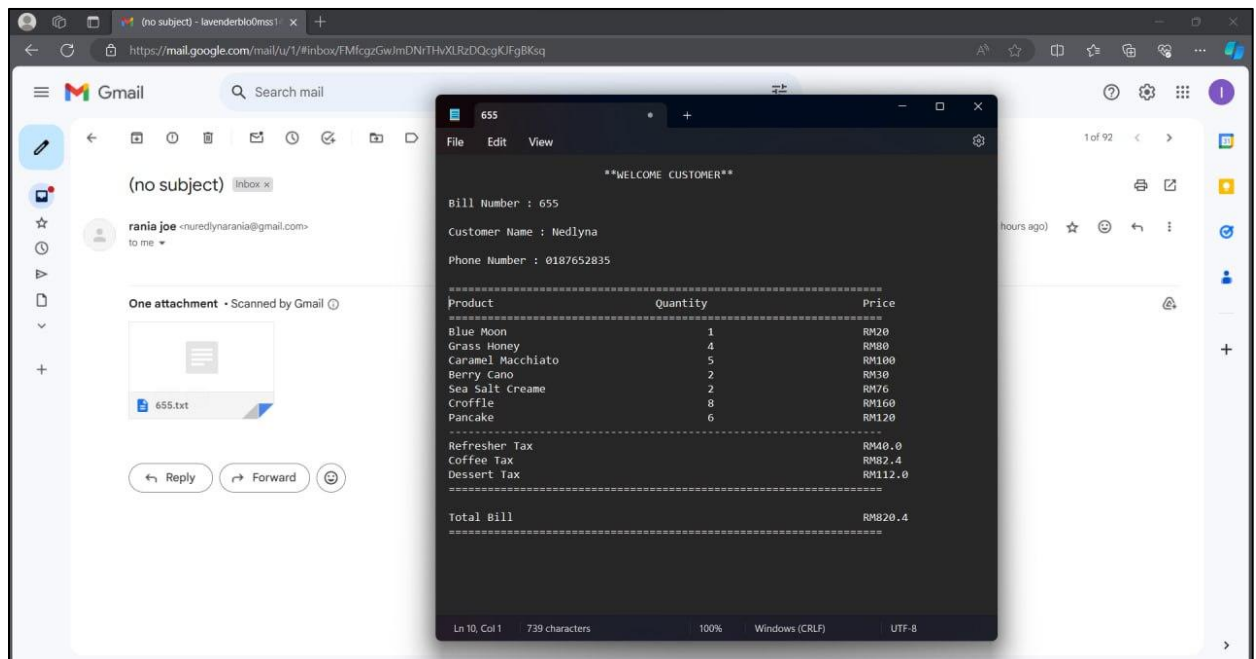


Figure 10.0: The receipt file received through email

10. Furthermore, if admin want to clear the data, admin can click the clear button.

The screenshot shows the Tiki Taka Cafe application interface. At the top, there's a header with the cafe's name. Below it, the 'CUSTOMER DETAILS' section includes input fields for Name (Nedlyna), Phone Number (0187652835), and Bill Number, along with a SEARCH button. The main area is divided into three columns: REFRESHERS, COFFEES, and DESSERTS, each with a list of items and their respective quantities. The REFRESHERS column includes items like Watermelon Sparkle, Mojito Lime, Cooling Mint, Blue Moon, Pop Soda Berry, and Grass Honey. The COFFEES column includes Ca Macci, Matcha Whimp, Berry Cano, Vanilla Fe Te, Cookies Moc, and Seasalt Fe. The DESSERTS column includes Moni Roll, Croissant, Macaroon, Egg Tart, Croffle, and Pancake. To the right of these columns is a 'Bill Area' section displaying the bill details, including the Bill Number (655), Customer Name (Nedlyna), Phone Number (0187652835), and a table of items with their quantities and prices. At the bottom, there's a 'BILL MENU' section with input fields for Refresher Price, Refresher Tax, Coffee Price, Coffee Tax, Dessert Price, and Dessert Tax. A row of buttons (Total, Bill, Email, Print, Clear) is located at the bottom right, with the 'Clear' button highlighted by a red box and an arrow.

Figure 11.0: Clear button used for clear all data

11. After admin click the clear button, all data will be clear.

The screenshot shows the Tiki Taka Cafe application interface after the 'Clear' button has been clicked. All data has been cleared, including the customer details, the item quantities in the REFRESHERS, COFFEES, and DESSERTS columns, the bill details in the 'Bill Area' section, and the prices and taxes in the 'BILL MENU' section. The 'Clear' button in the bottom right corner remains highlighted with a red box.

Figure 12.0: The all data has been cleared

12. Lastly, admin can search the data in the system by key in the bill number.

Tiki Taka Cafe

CUSTOMER DETAILS

Name Phone Number Bill Number

REFRESHERs

Watermelon Sparkle	<input type="text" value="0"/>
Mojito Lime	<input type="text" value="0"/>
Cooling Mint	<input type="text" value="0"/>
Blue Moon	<input type="text" value="0"/>
Pop Soda Berry	<input type="text" value="0"/>
Grass Honey	<input type="text" value="0"/>

COFFEES

Ca Macchi	<input type="text" value="0"/>
Matcha Whimp	<input type="text" value="0"/>
Berry Cano	<input type="text" value="0"/>
Vanilla Fe Te	<input type="text" value="0"/>
Cookies Moc	<input type="text" value="0"/>
Seasalt Fe	<input type="text" value="0"/>

DESSERTs

Moni Roll	<input type="text" value="0"/>
Croissant	<input type="text" value="0"/>
Macaroon	<input type="text" value="0"/>
Egg Tart	<input type="text" value="0"/>
Croffle	<input type="text" value="0"/>
Pancake	<input type="text" value="0"/>

Bill Area

BILL MENU

Refresher Price	<input type="text"/>	Refresher Tax	<input type="text"/>
Coffee Price	<input type="text"/>	Coffee Tax	<input type="text"/>
Dessert Price	<input type="text"/>	Dessert Tax	<input type="text"/>

Figure 13.0: Admin search data by key in the bill number

13. After that, the data will show up in the “Bill Area”. It will make easier for admin to find the data in the system.

Tiki Taka Cafe

CUSTOMER DETAILS

Name Phone Number Bill Number

REFRESHERs

Watermelon Sparkle	<input type="text" value="0"/>
Mojito Lime	<input type="text" value="0"/>
Cooling Mint	<input type="text" value="0"/>
Blue Moon	<input type="text" value="0"/>
Pop Soda Berry	<input type="text" value="0"/>
Grass Honey	<input type="text" value="0"/>

COFFEES

Ca Macchi	<input type="text" value="0"/>
Matcha Whimp	<input type="text" value="0"/>
Berry Cano	<input type="text" value="0"/>
Vanilla Fe Te	<input type="text" value="0"/>
Cookies Moc	<input type="text" value="0"/>
Seasalt Fe	<input type="text" value="0"/>

DESSERTs

Moni Roll	<input type="text" value="0"/>
Croissant	<input type="text" value="0"/>
Macaroon	<input type="text" value="0"/>
Egg Tart	<input type="text" value="0"/>
Croffle	<input type="text" value="0"/>
Pancake	<input type="text" value="0"/>

Bill Area

****WELCOME CUSTOMER****

Bill Number : 655
Customer Name : Nedlyna
Phone Number : 0187652835

Product	Quantity	Price
Blue Moon	1	RM20
Grass Honey	4	RM20
Caramel Macchiato	5	RM100
Berry Cano	2	RM30
Sea Salt Creame	2	RM76
Croffle	8	RM160
Pancake	1	RM120
Refresher Tax		RM40.0

BILL MENU

Refresher Price	<input type="text"/>	Refresher Tax	<input type="text"/>
Coffee Price	<input type="text"/>	Coffee Tax	<input type="text"/>
Dessert Price	<input type="text"/>	Dessert Tax	<input type="text"/>

Figure 14.0: The data show up in the “Bill Area”

8.0 PROMPT DATA

- i. Name
- ii. Phone Number
- iii. Total Price
- iv. Bill
- v. Email
- vi. Print
- vii. Clear
- viii. Search

9.0 FUNCTION DATA

- i. Create data
- ii. Read data
- iii. Update data
- iv. Delete existing data
- v. Calculate data
- vi. Search data
- vii. Print data
- viii. Send data

10.0 CONDITIONAL STATEMENT – YES

```
6
7 def save_bill():
8     global billnumber
9     result=messagebox.askyesno('Confirm', 'Do you want to save the bill?')
10    if result:
11        bill_content=textarea.get(1.0, END)
12        file=open(f'bills/{billnumber}.txt', 'w')
13        file.write(bill_content)
14        file.close()
15        messagebox.showinfo('Success', f'bill number{billnumber} is saved successfully')
16        billnumber = random.randint (500,1000)
17
18
19    billnumber=random.randint(500,1000)
20
21 def bill_area():
22     if nameEntry.get()==' ' or phoneEntry.get()=='':
23         messagebox.showerror('Error', 'Customer Details Are Required')
24     elif refresherpriceEntry.get()==' ' and coffeepriceEntry.get()==' ' and dessertpriceEntry.get()=='':
25         messagebox.showerror('Error', 'No Product Are Selected')
26     elif refresherpriceEntry.get()=='RM 0' and coffeepriceEntry.get()=='RM 0' and dessertpriceEntry.get()=='RM 0':
27         messagebox.showerror('Error', 'No Products Are Selected')
28     else:
29         textarea.delete(1.0, END)
30
```

Figure 15.0: Conditional statement used in python