COLLEGE OF COMPUTING, INFORMATICS AND MEDIA,

UNIVERSITI TEKNOLOGI MARA,

CAWANGAN KEDAH

DIPLOMA IN LIBRARY INFORMATICS

(CDIM144)

PROGRAMMING FOR LIBRARIES

(IML208)

“INDIVIDUAL PROJECT: MEAL BOX”

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CLASS:

KIM1443F

PREPARED FOR:

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SUBMISSION DATE:

4TH JANUARY 2024

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ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest appreciation and respect to those who provided me the possibility and gave me the chance to complete this assignment. A special gratitude to my lecturer for the Programming for Libraries (IML208) subject Sir Airul Shazwan bin Norshahimi for giving me clear and concise instructions to make it easier for me to proceed with this assignment smoothly, he also assisted me with encouragement and guidance to make this assignment succeed. A very huge thank you to my classmates in the KIM1443F class for giving each other cooperation and support while I was working on my assignment. Their attitude and willingness helped me complete this review article within just a couple of weeks. An extraordinary thanks to my friends for the cooperation they gave me so that I could complete the assigned task quickly and smoothly. Lastly, I would like to thank my family for being supportive and never stop motivating me to keep continuing my work.

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Course Code : IML208

Programme Code : CDIM144

Faculty / Campus : UiTM Kampus Sungai Petani

1.0 INTRODUCTION

For my assignment, I need to design and develop a simple computer interface that includes create and read operations. To fulfill this task, I have created a program called "Meal Box" to simplify the food ordering process and users can easily calculate the cost based on the number of boxes they wish to order. I have prepared three types of food boxes with different types of contents at different prices. The program is easy to use and requires only basic information. There are several inputs that the user needs to enter. First, users have to choose the meal box they want from the 3 types of boxes provided. The 3 types of boxes are Box A, Box B, and Box C. Then, users need to enter the number of boxes they want and it has been stated that they need to enter numbers only to avoid errors when the calculation is carried out. After that, users need to enter their first and last names in the boxes provided. After ensuring all the information has been correctly filled in, the user can initiate the calculation by pressing the 'Calculate' button. The calculation formula used is, that the price of a box will be multiplied by the number of boxes to get the actual price to be paid by the buyer or user. Once the calculation is made, the output that will be received by the user is their name, the box type that has been selected, the total box that they have entered, and the actual price of the food box that needs to be paid.

1.1 Flowchart

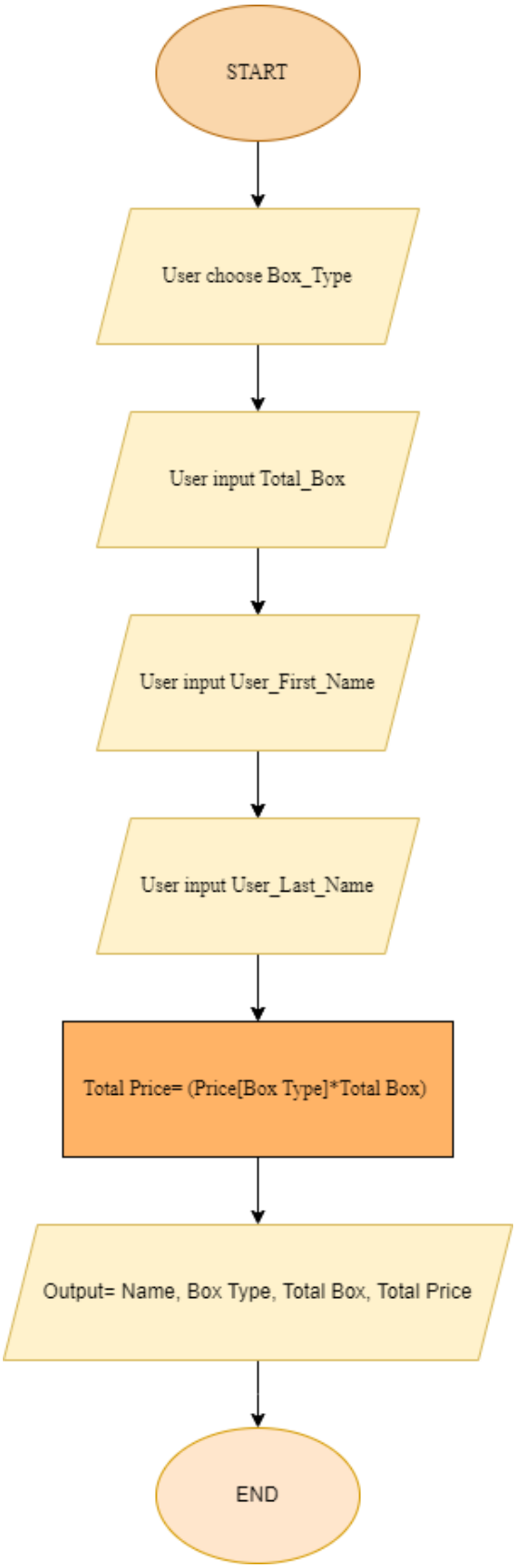


Figure 1: Flowchart Meal Box

1.2 Snapshot Code

Meal_Box.py

```python
import tkinter as tk
import mysql.connector

# Connect MySQL database
mydb = mysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="Meal_Box"
)

mycursor = mydb.cursor()

# Coding and Calculation
def collect_data():
    Box_Type =box_var.get()
    Total_Box = int(box_entry.get())
    User_First_Name = str(user_first_name_entry.get())
    User_Last_Name= str(user_last_name_entry.get())

    # The price
    Price = {
        "Box A": 15,
        "Box B": 25,
        "Box C": 28,
    }


    # Calculate the total price.
    Total_Price = (Price[Box_Type] * Total_Box)
```

Figure 2: Snapshot Code

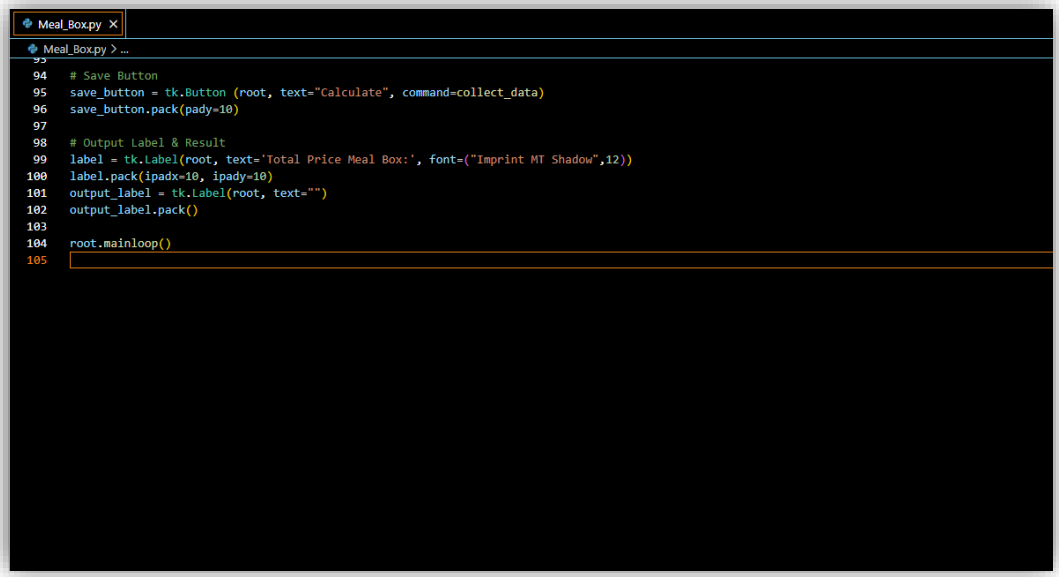
Meal_Box.py

```python
    # To insert Data to database
    sql = "INSERT INTO `meal_box` (User_First_Name, User_Last_Name, Box_Type, Total_Box, Price) VALUES (%s, %s, %s, %s, %s)"
    val = (User_First_Name, User_Last_Name, Box_Type, Total_Box, Total_Price)
    mycursor.execute(sql, val)
    mydb.commit()

    # To Print back the output.
    output_label.config(text=f"Name: { User_First_Name} {User_Last_Name} \nBox Type: {Box_Type} \nTotal Box: {Total_Box} \nTotal Price: RM{Total_


# Main window.
root = tk.Tk()
root.title("Meal Box")
root.geometry('600x700')


# Page Title
label = tk.Label(root, text='Order Meal Box Prices', font=("Imprint MT Shadow",14, "bold"))
label.pack(ipadx=20, ipady=20)


# Prices List
prices_text = tk.Text(root, height=13, width=62)
prices_text.pack(pady=20)

# The defined list
prices_text.insert(tk.END, "Box Type & Prices:\n\n")
prices_text.insert(tk.END, "Box A: 2 Chicken Sandwich, Mix Fruits, Salad \nPrice: RM15\n\n")
prices_text.insert(tk.END, "Box B: Chicken Rice, Crispy Wanton, Mix Fruits \nPrice: RM25\n\n")
prices_text.insert(tk.END, "Box C: Spaghetti Aglio Olio, 3 pieces of Chicken Wings, Salad \nPrice: RM28\n\n")
prices_text.insert(tk.END, "Important!\nState the order amount in the box pack using numbers only")
```

Figure 3: Snapshot Code

```
Meal_Box.py
Meal_Box.py > ...
63  prices_text.configure(state='disabled')
64
65  # Box Type Dropdown (Label)
66  box_label = tk.Label(root, text="Choose your box type:")
67  box_label.pack()
68
69  # Box Type Dropdown
70  box_var = tk.StringVar(root)
71  box_var.set("Select Meal Box")
72  box_dropdown = tk.OptionMenu(root, box_var, "Box A", "Box B", "Box C")
73  box_dropdown.pack(pady=10)
74
75
76  # Box Entry. Label and user can insert data thru entry
77  box_label = tk.Label(root, text="Total Box:")
78  box_label.pack()
79  box_entry = tk.Entry(root)
80  box_entry.pack()
81
82  #User First Name Type Dropdown
83  user_first_name_entry=tk.Label(root, text="Insert your first name:")
84  user_first_name_entry.pack()
85  user_first_name_entry=tk.Entry(root)
86  user_first_name_entry.pack()
87
88  #User Last Name Type Dropdown
89  user_last_name_entry=tk.Label(root, text="Insert your last name:")
90  user_last_name_entry.pack()
91  user_last_name_entry=tk.Entry(root)
92  user_last_name_entry.pack()
93
```

Figure 4: Snapshot Code



```
Meal_Box.py
Meal_Box.py > ...
94  # Save Button
95  save_button = tk.Button (root, text="Calculate", command=collect_data)
96  save_button.pack(pady=10)
97
98  # Output Label & Result
99  label = tk.Label(root, text='Total Price Meal Box:', font=("Imprint MT Shadow",12))
100 label.pack(ipadx=10, ipady=10)
101 output_label = tk.Label(root, text="")
102 output_label.pack()
103
104 root.mainloop()
105
```

Figure 5: Snapshot Code

1.3 Snapshot GUI

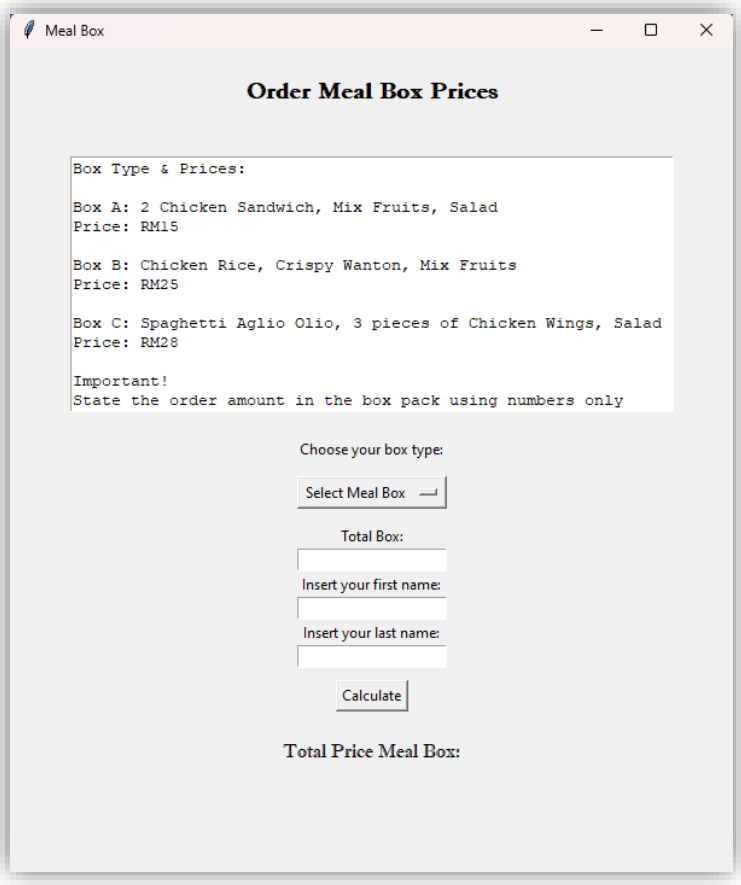


Figure 6: Snapshot GUI Meal Box

1.4 Snapshot Database

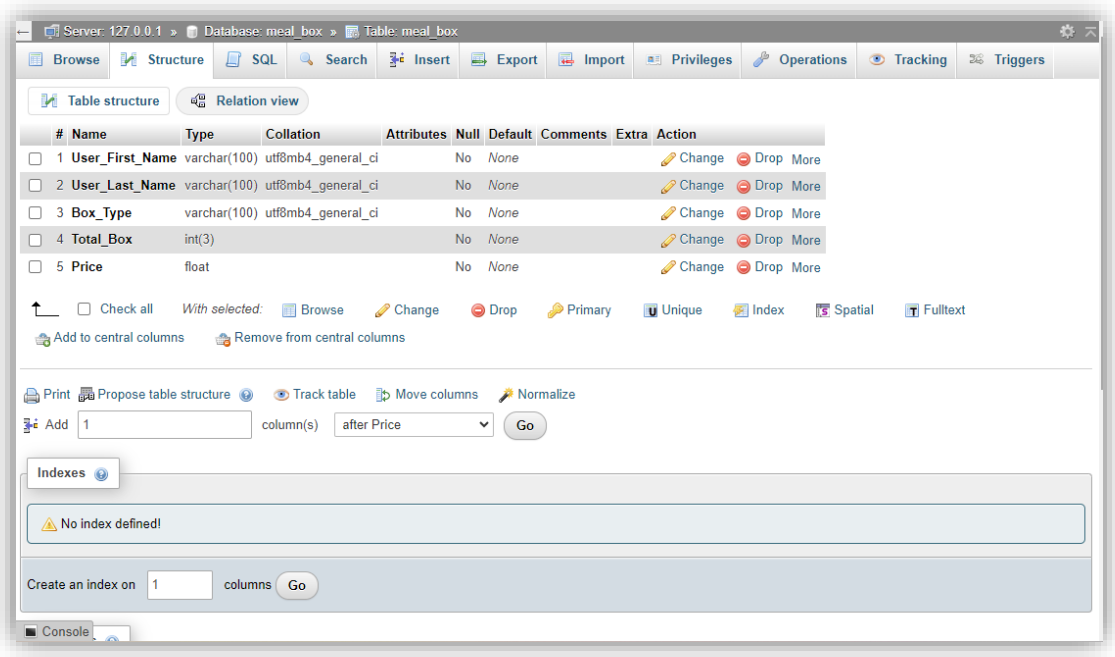


Figure 7: Snapshot Structure Database

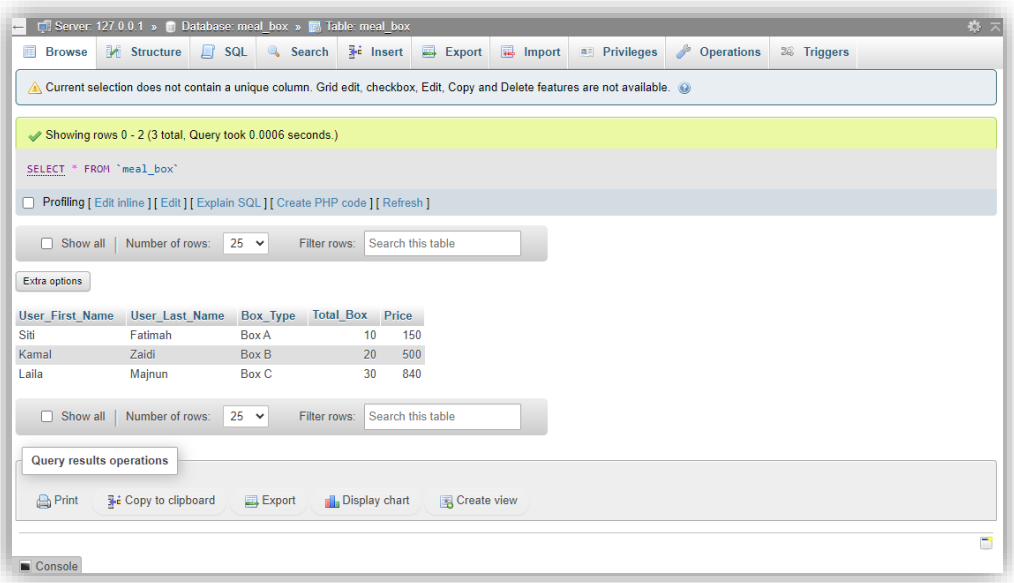


Figure 8: Snapshot Database Table

2.0 CONCLUSION

Based on this assignment, what can be concluded is that the process will be seen more clearly using a flowchart. Next, various things can be learned during coding, such as exploring the different types of coding to be improved, trying and fixing the coding until it is successful, and entering the data as desired. In addition, I can also create a database so that user information and others can be recorded through the GUI. I was also able to create 5 attributes and was able to generate the correct calculation formula. Therefore, I feel that coding is not easy, but by continuing to try without stopping, things become easy. I also feel that coding is a programming that can simplify business and save data more easily along with the development of technology nowadays. I hope that I can understand more existing coding codes so that my skills can be further developed.