UNIVERSITI TEKNOLOGI MARA

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

UNIVERSITI TEKNOLOGI MARA (UiTM)

CAWANGAN KEDAH, KAMPUS SUNGAI PETANI

PROGRAMMING FOR LIBRARIES (IML208)

INDIVIDUAL PROJECT: CATERING PACKAGE CALCULATION

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SUBMISSION DATE:

4TH JANUARY 2024

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ACKNOWLEDGEMENT

On this great occasion of successful completion of my assignment on Individual Project, I would like to thank my lecturer Sir. Airul Shazwan Bin Norshahimi who has guided and assisted me to complete the assignment. Without her support I would not have finished the assignment within time.

I would also like to take this opportunity to thank my friends and family members, without them this assignment could not have been completed in a short duration. Thank for all the motivation given when I need it.

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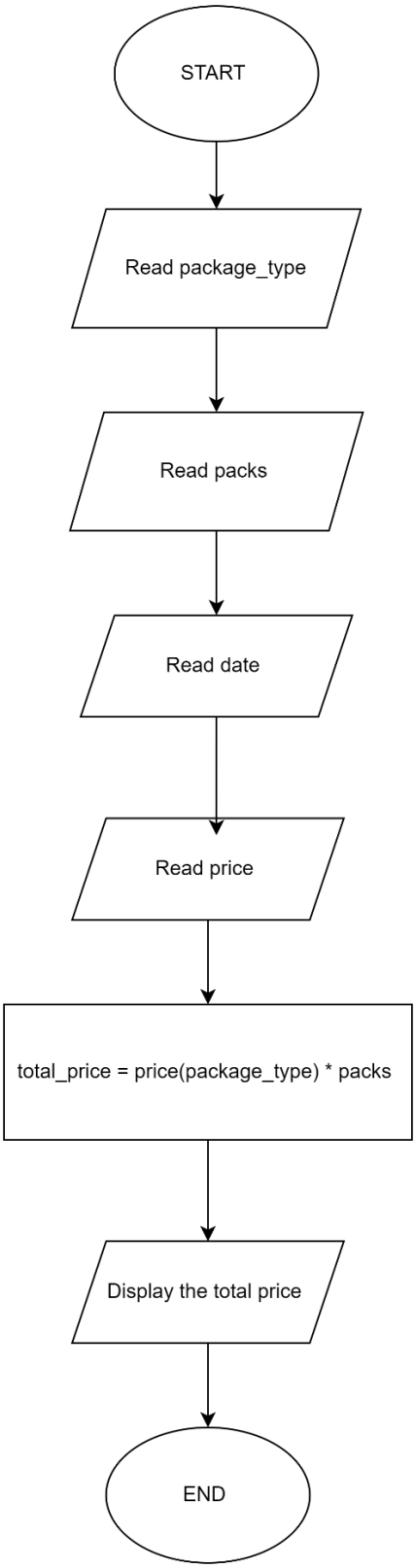
1.0 INTRODUCTION

The catering package calculation module is a Python GUI application designed to assist users in calculating the total cost of catering packages based on user inputs. The program offers a user-friendly interface where individuals can select a catering package from a dropdown menu, input the number of packs they require, and choose a date for the event using a date picker. The application provides a detailed description of available packages along with their respective prices. Three different types of packages with various types of food are offered for selection: Package A, Package B, and Package C. Customers has the option to select their preferred packages based on food and price.

When the "Calculate" button is clicked, the application dynamically calculates and displays the total price of the chosen catering package while accounting for the quantity of packs selected. Additionally, the program incorporates a disabled text box that presents a comprehensive list of available packages along with corresponding details and price.

The primary features of the catering program include a visually appealing GUI, package selection, user input validation, a date picker for event scheduling, and real-time calculation and display of the total price. The program serves as a practical tool for users involved in event planning, allowing them to quickly and efficiently determine the cost of catering services based on their specific requirements.

2.0 FLOWCHART



3.0 SNAPSHOT OF PYTHON CODE

Catering_package.py > ...

```python
import tkinter as tk
from tkinter import messagebox
from datetime import datetime
import mysql.connector

# To connect the database Mysql with the code
mydb = mysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="catering_package"
)

# Create a cursor object to execute SQL queries
mycursor = mydb.cursor()

```

```python
# Function to handle database and calculation of the data
def customer_data ():
    package_type = package_var.get()
    date_str = date_entry.get()

    try:
        # Convert the date string to a datetime object
        date_obj = datetime.strptime(date_str, "%Y/%m/%d")
        formatted_date = date_obj.strftime("%d %b %Y")  # Format as per your requirement
    except ValueError:
        messagebox.showerror("Error", "Invalid date format. Please enter date in the format yyyy/mm/dd")
        return

    packs = int(packs_entry.get())
```

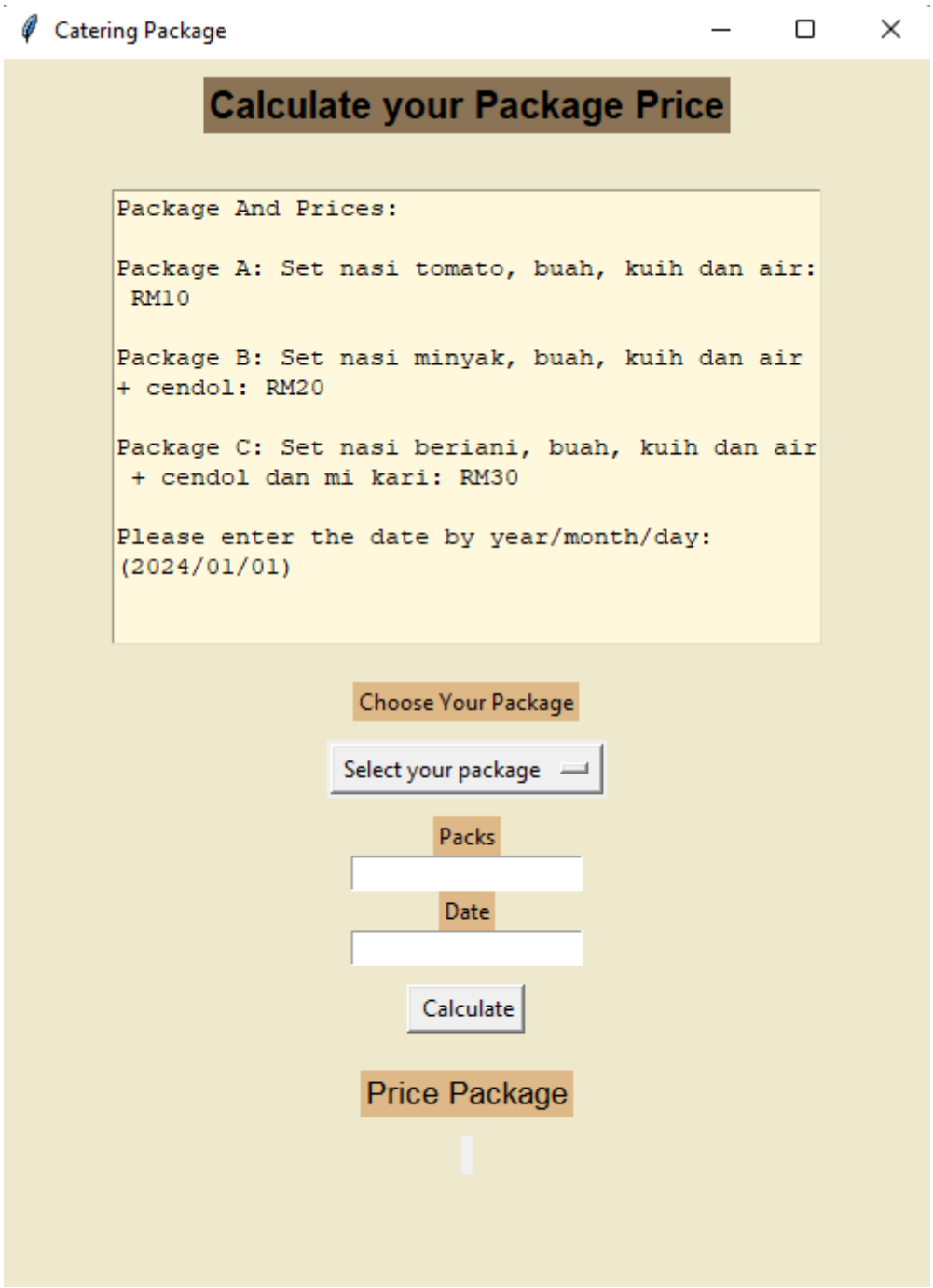
```python
    # List of the price of all package
    price = {
    "Package A": 10,
    "Package B": 20,
    "Package C": 30,
    }

    # To calculate the total price of the customer package
    total_price = (price[package_type] * packs)

    # To insert the data into the database with 4 attributes.( 3 Attributes from the selection(package, date and packs) and for the total price (price) is a derived attributes)
    sql = "INSERT INTO package (Package_Type, Package_Date, Package_Packs, Package_Price) VALUES (%s, %s, %s, %s)"
    val = (package_type, formatted_date, packs, total_price)
    mycursor.execute(sql, val)
    mydb.commit()

    # To display the output of the customer data
    output_label.config(text=f"On: {formatted_date} Package: {package_type}, Packs: {packs}, Total Price: RM{total_price}")

# The Main Window
root = tk.Tk()
root.title("Catering Package")
root.geometry('500x700')

# Set the background color of the main window
root.configure(bg='#EEE8CD')  # Nude colour is the background
```

```
# Title of the page in the main window
label = tk.Label(root, text='Calculate your Package Price', font=("Arial", 15, "bold"), bg='#8B7355') #Brown colour for the backhround
label.pack(padx=10, pady=10)

# List of the price by using textbox
price_text= tk.Text(root,height=15, width=47, bg= '#FFF8DC') # Nude colour for the background
price_text.pack(pady=20)

# The package description and price
price_text.insert(tk.END, "Package And Prices: \n\n")
price_text.insert(tk.END, "Package A: Set nasi tomato, buah, kuih dan air: RM10\n\n")
price_text.insert(tk.END, "Package B: Set nasi minyak, buah, kuih dan air + cendol: RM20\n\n")
price_text.insert(tk.END, "Package C: Set nasi beriani, buah, kuih dan air + cendol dan mi kari: RM30\n\n")
price_text.insert(tk.END, "Please enter the date by year/month/day:\n(2024/01/01)\n\n")
price_text.configure(state="disabled")

# Label for the package type
packs_label= tk.Label(root, text="Choose Your Package" , bg='#DEB887') # Soft brown for the backgound colour
packs_label.pack()
```

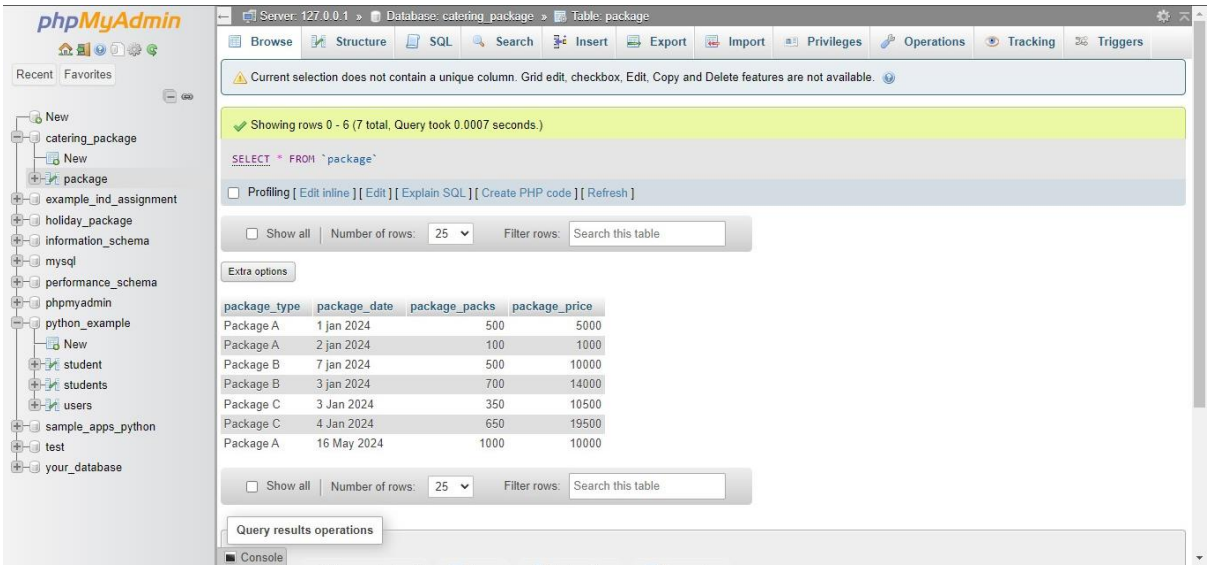
```
# For selecting the package
package_var= tk.StringVar(root)
package_var.set("Select your package")
trip_dropdown = tk.OptionMenu(root, package_var, "Package A", "Package B", "Package C")
trip_dropdown.pack(pady=10)

# Packs Entry, label and user can insert data
packs_label = tk.Label(root, text="Packs" , bg='#DEB887') # Soft brown for the backgound colour
packs_label.pack()
packs_entry = tk.Entry(root)
packs_entry.pack()

# Date confirmation from the customer
date_label = tk.Label(root, text= "Date", bg='#DEB887') # Soft brown for the backgound colour
date_label.pack()
date_entry = tk.Entry (root)
date_entry.pack()

# The save button to save to data
save_button = tk.Button(root, text=" Calculate", command = customer_data)
save_button.pack(pady=10)
```

```
# The output label
label = tk.Label(root, text="Price Package", font=("Arial",13 ), bg='#DEB887') # Soft brown for the backgound colour
label.pack(padx=10, pady=10)
output_label = tk.Label(root, text= "")
output_label.pack()

root.mainloop()
```

4.0 SNAPSHOT OF GUI INTERFACE



5.0 SNAPSHOT OF DATABASE



package_type	package_date	package_packs	package_price
Package A	1 jan 2024	500	5000
Package A	2 jan 2024	100	1000
Package B	7 jan 2024	500	10000
Package B	3 jan 2024	700	14000
Package C	3 Jan 2024	350	10500
Package C	4 Jan 2024	650	19500
Package A	16 May 2024	1000	10000