UNIVERSITI TEKNOLOGI MARA

KEDAH BRANCH

SCHOOL OF INFORMATION SCIENCE

COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

DIPLOMA IN LIBRARY INFORMATICS (IM 144)

IML 208: PROGRAMMING FOR LIBRARIES

INDIVIDUAL PROJECT: 5K RUN REGISTRATION

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5K RUN REGISTRATION

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IM144 – DIPLOMA IN INFROMATIC LIBRARY

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AKNOWLEDGEMENT

First and foremost, in the name of Allah, the Most Gracious and the Most Merciful, all praises to Allah for his blessing and strengths, I can complete this assignment in time.

I would like to thank Sir Airul Shazwan bin Norshahimi for his guidance and supervision that gave me courage and idea for me to complete this assignment. I appreciate how passionate he worked to teach and give us new knowledge about this subject which is Programming for Libraries (IML208)

Moreover, I also want to praise to my parents and family because they always give me motivation. They are the important person in my life, without them, I don't think that I can survive in this university life. And also thanks to all of my friends because they always release my stress by listening to all my problems. Only Allah AWT can repay their kindness.

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1.0 INTRODUCTION

This project is focused on running event registration called “5K Run Registration Form”. The main objective of creating this program is to make it easy for someone who likes to engage in running activities. This running event will attract people from various age levels to join because of the discount that has been providing for the fee registration.

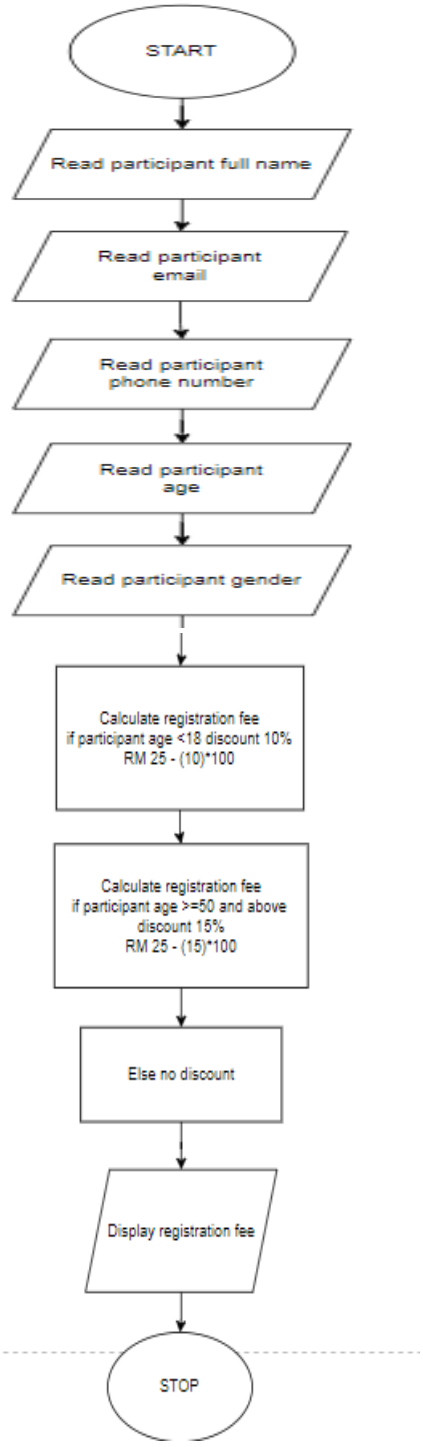
The fee registration for the 5K Run is only RM 25 but participants aged under 18 will get a 10% discount and a 15% discount for participants aged 50 and above.

To make this programme I use 6 attributes to save all the information about participants and also the required registration fee. The example of attributes that I used is participant full name, email, phone number, age, gender and registration fee.

The calculation of fee registration in this registration form was based on participant age. The fee registration for the 5K Run is only RM 25 but participants aged under 18 will get a 10% discount and a 15% discount for participants aged 50 and above. This registration form is open for participant age 12 until 70.

2.0 FLOWCHART

This flowchart shows the process of registration of the 5K Run Registration event. The calculation include in the registration process is a 10% discount on participants age under 18 and a 15% discount on participants aged 50 and above.



3.0 SNAPSHOOT OF PROGRAMME CODE

```python
#firstly, import tkinter as tk,
#and then import tkinter as ttk to use the comobox for gender
#and lastly import mysql.connector to make sure it will connect to database
import tkinter as tk
from tkinter import ttk
import mysql.connector
# Connect to your MySQL database
mydb = mysql.connector.connect(
        host="localhost",
        user="root",
        password="",
        database="5k_run_registration_form"
    )

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

```

Figure 1

```python

def collect_data():
    participant_full_name = participant_full_name_entry.get()
    print("Full Name: ", participant_full_name)
    participant_email = participant_email_entry.get()
    print("Email: ", participant_email)
    participant_phone_no = int (participant_phone_no_entry.get())
    print ("Phone Number: ", participant_phone_no )
    participant_age = int(participant_age_spinbox.get())
    print("Age: ", participant_age)
    participant_gender = participant_gender_combobox.get()
    print("Gender:", participant_gender)
    registration_fee = 25 #registration fee
    print ("Your registration fee is RM", registration_fee)


    # Function to calculate fee based on age
    def calculate_fee():
        registration_fee = 25  # Default registration fee
        if participant_age < 18:
            registration_fee = 25 - (0.1 * 25)  # 10% discount for participant age under 18
        elif participant_age >= 50:
            registration_fee = 25 - (0.15 * 25)  # 15% discount for participant age 50 and above
        return registration_fee

    fee_value = calculate_fee()
```

Figure 2

```
    # Display the registration fee in the label
    registration_fee_label.config(text=f'Your registration fee is RM {fee_value:.2f}')

# Insert data into the database
    sql = "INSERT INTO 5K_run (participant_full_name, participant_email, participant_phone_no. participant_age, participant_gender, registration_fee) VALUES (%s, %s, %s, %s, %s, %s)"
    values = (participant_full_name, participant_email, participant_phone_no,  participant_age, participant_gender, registration_fee)

    mycursor.execute(sql, values)

    # Commit the changes to the database
    mydb.commit()

    # Close the database connection
    mydb.close()

# Create GUI
root = tk.Tk()
root.configure(background="light blue")
root.title("5K Run Registration Form")
root.geometry('400x510')
# To center the root on the screen
screen_width = root.winfo_screenwidth()
screen_height = root.winfo_screenheight()

x_coordinate = (screen_width - 500) // 0.5
y_coordinate = (screen_height - 540) // 0.5
```

Figure 3

```
# the big title for the form page
label = tk.Label(root, text='5K RUN REGISTRATION', font=("Baskerville Old Face", '14', "bold"), bg="light blue")
label.grid(row=0, column=0, padx=10, pady=10)

frame = tk.Frame(root, bg="light blue")
frame.grid(row=1, column=0)

# Participant Information Frame
participant_info_frame = tk.LabelFrame(frame, text="Participant Information", font=("Times New Roman", 11), bg="gray", width=300)
participant_info_frame.grid(row=0, column=0, padx=10, pady=20 , rowspan=3, columnspan=7, sticky="nsew")

participant_full_name = tk.Label(participant_info_frame, text="Full Name", font=("Times New Roman", 11), bg="gray")
participant_full_name.grid(row=1, column=0, padx=(0,5))
participant_full_name_entry = tk.Entry(participant_info_frame, width=27)
participant_full_name_entry.grid(row=1, column=5)

participant_email = tk.Label(participant_info_frame, text="Email", font=("Times New Roman", 11), bg="gray")
participant_email.grid(row=2, column=0, padx=(0,5))
participant_email_entry = tk.Entry(participant_info_frame, width=27)
participant_email_entry.insert(0, "@gmail.com")  # this value will show up at the emial entry box
participant_email_entry.grid(row=2, column=5)

participant_phone_no = tk.Label(participant_info_frame, text="Number Phone ", font=("Times New Roman", 11), bg="gray")
participant_phone_no.grid (row=3, column=0, padx=(0,5))
participant_phone_no_entry =tk.Entry (participant_info_frame, width=27)
participant_phone_no_entry.grid (row=3, column=5)

participant_age = tk.Label(participant_info_frame, text="Age", font=("Times New Roman", 11), bg="gray")
participant_age.grid(row=4, column=0, padx=(0,5) )
participant_age_spinbox = tk.Spinbox(participant_info_frame, width=25, from_=12, to=70) #open for 12 years old until 70 years old
participant_age_spinbox.grid(row=4, column=5)
```

Figure 4

```
participant_gender = tk.Label(participant_info_frame, text="Gender", font=("Times New Roman", 11), bg="gray")
participant_gender.grid(row=5, column=0, padx=(0,5))
participant_gender_combobox = ttk.Combobox(participant_info_frame, width=25, values=["Male", "Female"])
participant_gender_combobox.grid(row=5, column=5)

for widget in participant_info_frame.winfo_children():
    widget.grid_configure(padx=10, pady=6)


# Registration Fee and Discount Frame
registration_fee_and_discount_frame = tk.LabelFrame(frame, text="Registration Fee and Discount", font=("Times New Roman", 11), bg="gray")
registration_fee_and_discount_frame.grid(row=5, column=0, padx=20, pady=10, rowspan=3, sticky="nsew")

registration_fee = tk.StringVar()
registration_fee_info = (
    "The registration fee is only RM25\n"
    "Participant age under 18 will get 10% discount\n"
    "Participant age 50 and above will get 15% discount\n"
)
label = tk.Label(registration_fee_and_discount_frame, textvariable=registration_fee, justify=tk.LEFT, font=("Times New Roman", 11), bg="white")
label.grid(row=0, column=0, padx=10, pady=5)
registration_fee.set(registration_fee_info)
```

Figure 5

```
126
127  # Label to display the calculated registration fee
128  registration_fee_label = tk.Label(registration_fee_and_discount_frame, text="", font=("Times New Roman", 11), bg="gray")
129  registration_fee_label.grid(row=1, column=0, padx=10, pady=5)
130
131  # Register button for user to complete their registration process
132  register_button = tk.Button( text="Register", font=("Times New Roman", 11), bg="gray", command=collect_data)
133  register_button.grid(row=6, pady=20)
134  register_button.config
135
136  # Configure grid weights to make the frames expandable
137  frame.columnconfigure(0, weight=1)
138  frame.rowconfigure(0, weight=1)
139
140  root.mainloop()
```

Figure 6

4.0 SNAPSHOOT OF GUI

This GUI shows the form of 5K Run Registration. The participant information will save information about the user who wants to register. In participant information, the user needs to insert their full name, email, phone number, age, and gender.

After that, the participants can see the description of the registration fee and discount. This this part, it showed if the participant or user aged under 18 will get a 10% discount for the registration fee. Meanwhile, participants aged 50 and above will get a 15% discount for the registration fee. The use of this description is to let participant know the value of fee registration for the 5K Run and what kind of discount they will get.

When user click the “Register” button, it will automatically show the registration fee that the participant needs to pay and the registration process will be complete.

Figure 7: GUI of 5K Run Registration Form

5.0 SNAPSHOOT OF DATABASE

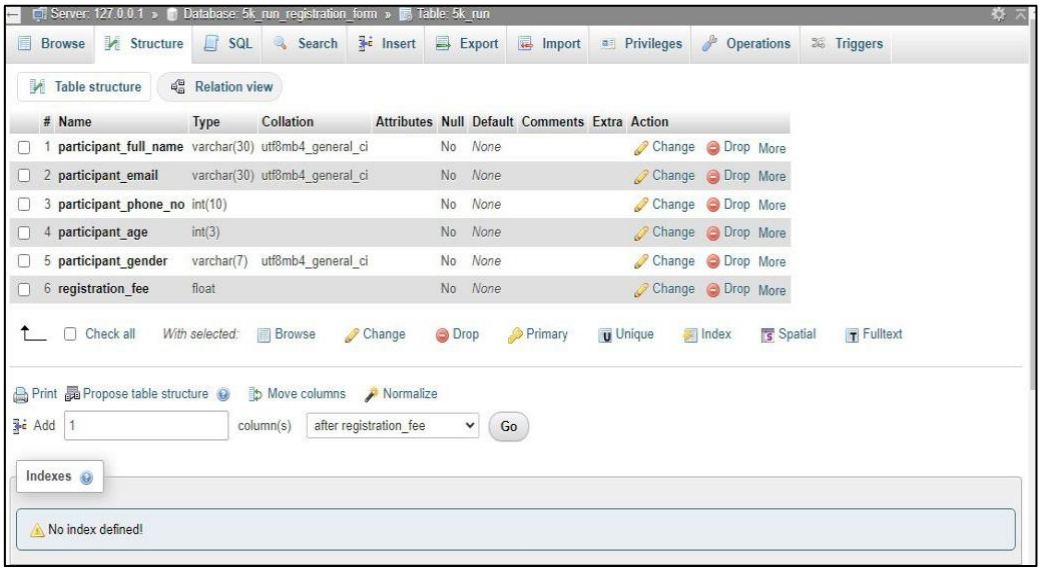


Figure 8: Structure of attributes in the table

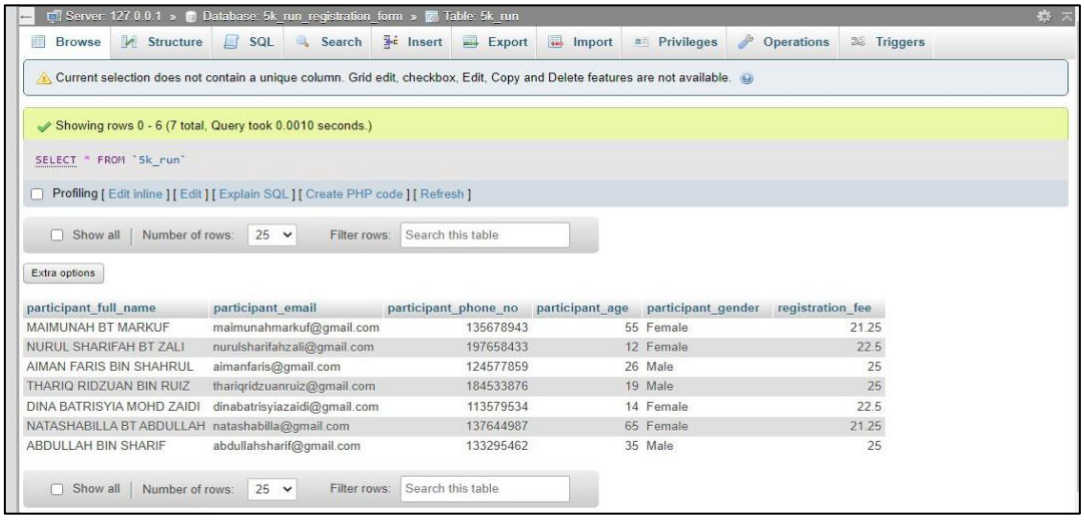


Figure 9: Participant Information

6.0 CONCLUSION

In the conclusion, this 5K Run Registration form will make someone who likes to engage in running event more active to join this kind of activity. This is because, this registration form will make their work easy to join because it's only need a few information and within single click they already successful to join the event.

Moreover, with various level of age that open within 12 years old until 100 years old citizen are open for this event. With this it will make the event very lively. The discount of fee registration is also will bring a good feedback by citizen who want to join.