



COLLEGE OF COMPUTING, INFORMATICS AND MATHEMATICS

UNIVERSITI TEKNOLOGI MARA (UiTM)
CAWANGAN KEDAH, KAMPUS SUNGAI PETANI

DIPLOMA IN LIBRARY INFORMATIC (CDIM144)

PROGRAMMING FOR LIBRARIES (IML208)

“INDIVIDUAL ASSIGNMENT: REPORT”

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CLASS: KCDIM144 3E

PREPARED FOR:

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SUBMISSION DATE: 4th JANUARY 2024

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ACKNOWLEDGEMENT

Assalamualaikum w.b.t

First and foremost, I want to thank Allah (SWT) for giving me the strength and patience I needed to do this assignment. I would not have made it this far without the help of the Almighty. I always put up a lot of effort to provide a quality assignment, with all of my responsibilities and devotion.

Next, my assignment would not have been finished correctly without the advice of my lecturer, Sir Airul Shazwan bin Norshahimi, thus I would like to show my gratitude to him. He is always there to help and advise me on how to do my assignment successfully. As I worked on this project, He served as a great source of inspiration for me. I also want to thank him for the lessons he gave me in this course. I also want to thank my roommates for the minor assistance they provided me with this assignment.

Lastly, I would like to express my gratitude to my supportive family especially my mother and eldest brother for their support and prayers, which have helped me to this point. I hope that my final grades will reflect that our effort was worthwhile. I've gained fresh information from this assignment that I didn't know before. I'm hoping to use this knowledge in the future.

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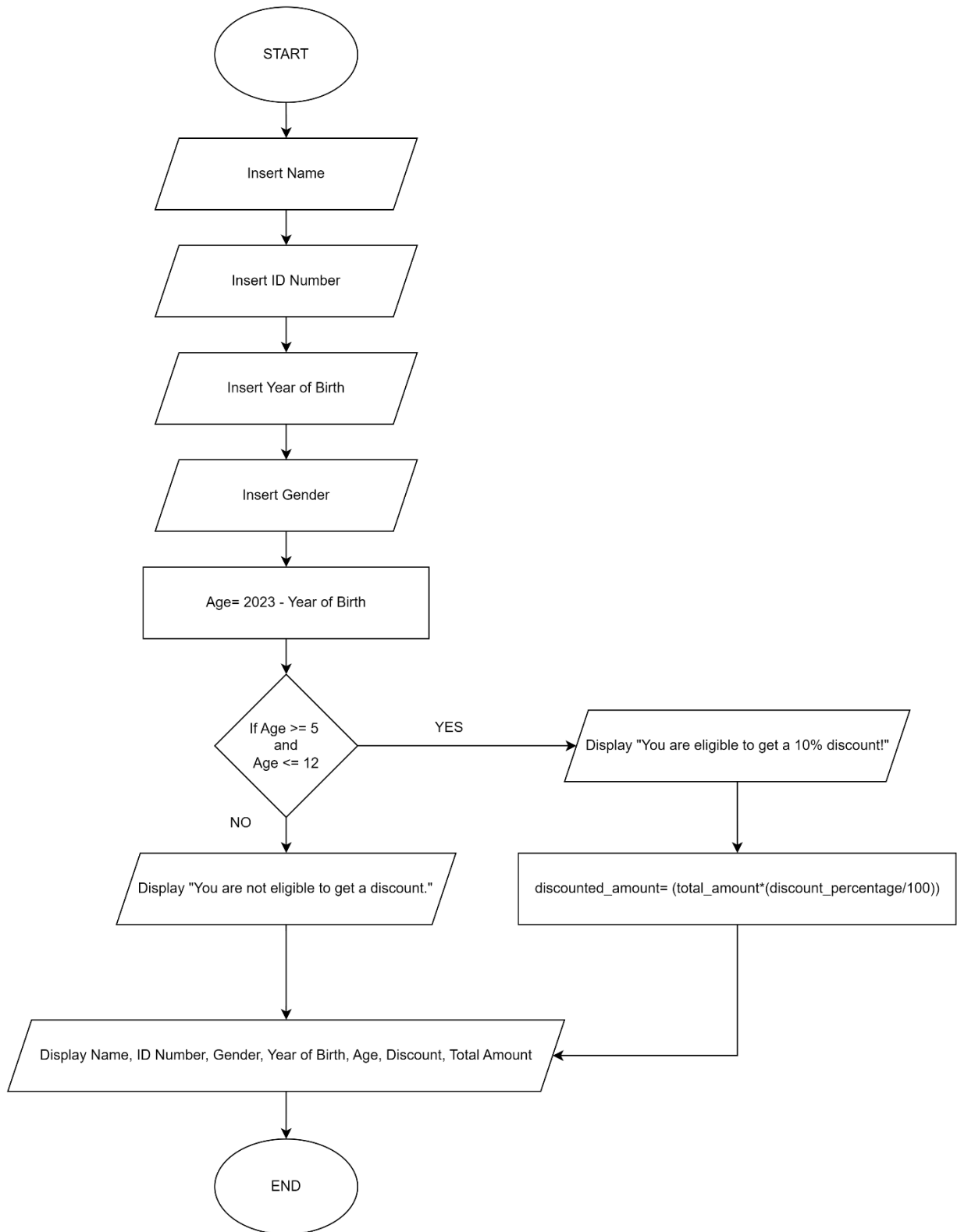
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1.0 INTRODUCTION

For this individual assignment, I create a taekwondo registration form system for the user that contains attributes like name, ID number, gender, year of birth, age, discount, and total amount. This system required the user to insert all the member information in the form to register. There is indeed a calculation after the user submits the information, whereby the year of birth generates age for the user without the need to insert it out in the form. Other than that, after the age is generated, the discount will be calculated to determine whether the age is eligible to get a discount. For the discount, only members between 5 to 12 years old can get a discount of 10%. If the age of the member is 13 or older, they are not eligible to get the discount. Please note that this registration does not accept children under the age of 5.

After all the processes are complete, all the member's information will be added and saved into the database for the owner's records. Therefore, this system will simplify and smooth the member registration process for both users and owners.

2.0 FLOWCHART



3.0 SNAPSHOT OF PYTHON CODE

```
File Edit Selection View Go Run ... Search
ind_assign.py IND_ASS.py
C:\Users\Ummi Kalsum\Desktop> IML 208 > ind_assign.py > ...
1 import tkinter as tk
2 import mysql.connector
3
4 # Connect to your MySQL database
5 mydb = mysql.connector.connect(
6     host="localhost",
7     user="root",
8     password="",
9     database="taekwondo_registration"
10 )
11
12 # Create a cursor object to execute SQL queries
13 mycursor = mydb.cursor()
14
15 # Function to calculate the total amount
16 def calculate_total_amount():
17     # For simplicity, let's assume a fixed registration fee of RM50
18     registration_fee = 50
19     return registration_fee
20
21 def collect_data():
22     Name= Member_Name_entry.get()
23     ID = int (Member_ID_entry.get())
24     Gender = Member_Gender_var.get()
25     YoB= int (Member_YoB_entry.get())
26
27     # Calculate the age. This will be derived from your selection (Year of birth).
28     Age = 2023 - YoB
29
30
31 # Apply a 10% discount for kids between 5 to 12 years old
32 if Age >= 5 and Age <= 12:
33     discount_percentage = 10 # 10% discount
34     eligibility_message = "You are eligible to get a {}% discount!".format(discount_percentage)
35 else:
36     discount_percentage = 0 # No discount
37     eligibility_message = "You are not eligible to get a discount."
38
39 # Calculate the total amount
40 total_amount = calculate_total_amount()
41
42 # Calculate the discounted amount directly using the percentage value
43 discounted_amount = total_amount - (total_amount * (discount_percentage / 100))
44
45 #4 Attributes from your selection (Name, ID Number, Gender, Year of born) and 7 attributes that derived from your attributes (age, discount, total amount)
46 sql = "INSERT INTO Member_Information (Name, ID_Number, Gender, Year_of_Born, Age, Discount, Total_Amount) VALUES (%s, %s, %s, %s, %s, %s, %s)"
47 val = (Name, ID, Gender, YoB, Age, discount_percentage, discounted_amount)
48 mycursor.execute(sql, val)
49 mydb.commit()
```

Connection to “sql” that does not fit in the snapshot.

```
44 # your selection (Name, ID Number, Gender, Year of born) and 7 attributes that derived from your attributes (age, discount & total amount)
45 # Member_Information (Name, ID_Number, Gender, Year_of_Born, Age, Discount, Total_Amount) VALUES (%s, %s, %s, %s, %s, %s, %s)"
46 iender, YoB, Age, discount_percentage, discounted_amount)
47 iql, val)
```

```

50     # To Print back The output. It will happen in the function collect_data(). The f before the string indicates an f-string in Python.
51     output_label.config(text=f"{eligibility_message}\n\n")
52     f"Name: {Name}, ID Number: {ID}, Gender: {Gender}\n"
53     f"Year of Born: {YoB}, Age: {Age}, Discount: {discount_percentage}%, Total Amount: RM {discounted_amount}\n\n"
54     f"THANK YOU")
55
56 # Your Main window, You need to have the title, geometry (MUST)
57 root = tk.Tk()
58 root.title("Registration Form")
59 frame = tk.Frame(root)
60 frame.grid(row=0, column=0)
61
62 # Page Title
63 Label1 = tk.Label(root, text= "Taekwondo Registration Form", font=("Impact", 20), bg= "lightseagreen")
64 Label1.grid(row= 0, column= 0, sticky= "n", padx= 55)
65
66 #Member info
67 Member_Info = tk.LabelFrame(root, text="Member Information", font=("Impact", 10))
68 Member_Info.grid(row= 1, column= 0, padx= 20, pady=10)
69
70 Member_Name_label = tk.Label(Member_Info, text="Name")
71 Member_Name_label.grid(row= 1, column=0)
72 Member_Name_entry = tk.Entry(Member_Info)
73 Member_Name_entry.grid(row= 1, column= 1)

```

```

74 Member_ID_label = tk.Label(Member_Info, text="ID Number")
75 Member_ID_label.grid(row= 2, column= 0)
76 Member_ID_entry = tk.Entry(Member_Info)
77 Member_ID_entry.grid(row= 2, column= 1)
78
79
80 # Gender Dropdown (Label)
81 Gender_label = tk.Label(Member_Info, text="Gender")
82 Gender_label.grid(row= 2, column= 2)
83
84 # Trip Type Dropdown
85 Member_Gender_var = tk.StringVar(Member_Info)
86 Member_Gender_var.set("Choose your Gender") # Default value before your selection
87 Member_Gender_dropdown = tk.OptionMenu(Member_Info, Member_Gender_var, "Male", "Female")
88 Member_Gender_dropdown.grid(row= 3, column= 2, pady=10)
89
90 Member_YoB_label = tk.Label(Member_Info, text="Year of Birth")
91 Member_YoB_label.grid(row= 3, column= 0)
92 Member_YoB_entry = tk.Entry(Member_Info)
93 Member_YoB_entry.grid(row= 3, column= 1)
94
95 for widget in Member_Info.winfo_children():
96     widget.grid_configure(padx= 10, pady= 5)

```

```

97
98 # Only to inform those who fill out this form
99 information_text = tk.Text(root, height=3, width=49)
100 information_text.grid(row= 4, column= 0)
101 information_text.insert(tk.END, "Registration Fee : RM 50 \n\n")
102 information_text.insert(tk.END, "Discount for kids between 5 to 12 years old ONLY")
103
104 # Button
105 button = tk.Button(root, text="Submit", command= collect_data, bg= "lightseagreen")
106 button.grid(row= 5, column= 0, sticky="news", padx= 20, pady= 10)
107
108 # Output Label & result
109 label = tk.Label(root, text='Member Information', font=("Impact",13))
110 label.grid(ipadx=10, ipady=10)
111 output_label = tk.Label(root, text="")
112 output_label.grid()
113
114
115 root.mainloop()

```

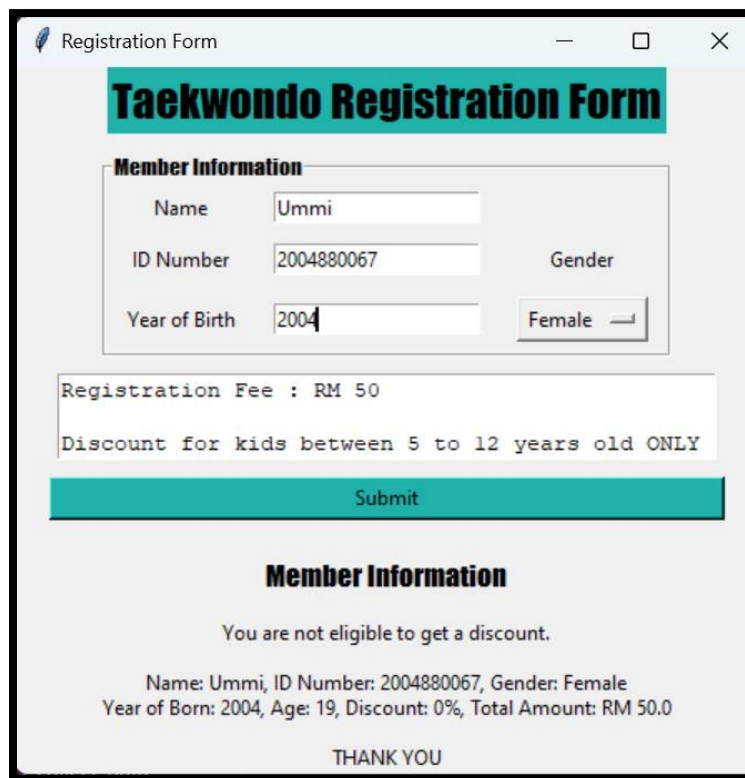

4.0 SNAPSHOT OF GRAPHICAL USER INTERFACE (GUI)

4.1 GUI before the form is inserted with the member's information



The image shows a window titled "Registration Form" with a teal header "Taekwondo Registration Form". Below the header is a section titled "Member Information" containing four input fields: "Name", "ID Number", "Year of Birth", and "Gender". The "Gender" field is a dropdown menu currently showing "Choose your Gender". Below these fields is a text area displaying "Registration Fee : RM 50" and "Discount for kids between 5 to 12 years old ONLY". At the bottom of this section is a teal "Submit" button. Below the form is a label "Member Information".

4.2 GUI after inserting a member who is not eligible to get a discount



The image shows the same "Registration Form" window after data entry. The "Name" field contains "Ummi", "ID Number" contains "2004880067", "Year of Birth" contains "2004", and the "Gender" dropdown is set to "Female". The "Submit" button is still present. Below the form, a message states "You are not eligible to get a discount." followed by a summary: "Name: Ummi, ID Number: 2004880067, Gender: Female Year of Born: 2004, Age: 19, Discount: 0%, Total Amount: RM 50.0". At the very bottom, it says "THANK YOU".

4.3 GUI after inserting a member who is eligible to get a 10% discount

The screenshot shows a window titled "Registration Form" with a teal header bar containing the text "Taekwondo Registration Form". Below the header is a section titled "Member Information" containing three input fields: "Name" with the value "Izzati", "ID Number" with the value "2013559990", and "Year of Birth" with the value "2013". To the right of the "ID Number" field is a "Gender" label, and below it is a dropdown menu showing "Female". Below the input fields is a text area displaying "Registration Fee : RM 50" and "Discount for kids between 5 to 12 years old ONLY". A teal "Submit" button is located below the text area. Below the "Submit" button is another section titled "Member Information" which contains the message "You are eligible to get a 10% discount!". Below this message is a summary of the member's information: "Name: Izzati, ID Number: 2013559990, Gender: Female" and "Year of Born: 2013, Age: 10, Discount: 10%, Total Amount: RM 45.0". At the bottom of the window is the text "THANK YOU".

Registration Form

Taekwondo Registration Form

Member Information

Name: Izzati

ID Number: 2013559990

Year of Birth: 2013

Gender: Female

Registration Fee : RM 50

Discount for kids between 5 to 12 years old ONLY

Submit

Member Information

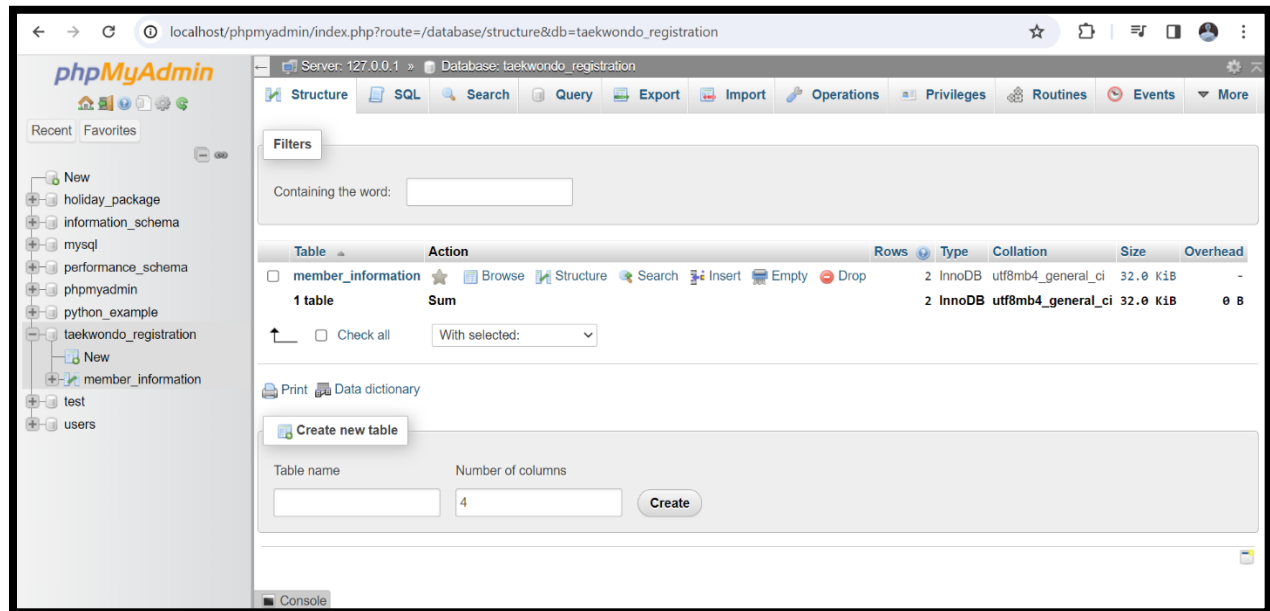
You are eligible to get a 10% discount!

Name: Izzati, ID Number: 2013559990, Gender: Female
Year of Born: 2013, Age: 10, Discount: 10%, Total Amount: RM 45.0

THANK YOU

5.0 SNAPSHOT OF DATABASE

Database of taekwondo_registration



Attributes in the member_information table

