

COLLEGE OF COMPUTING, INFORMATICS AND MEDIA UNIVERSITI TEKNOLOGI MARA, MERBOK, KEDAH

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GROUP PROJECT: TUITION MANAGEMENT SYSTEM

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ASSALAMUALAIKUM W.B.T,

First and foremost, praises and thanks to Allah SWT, for His showers of blessings throughout our group project to complete until the end. This project is really difficult and complex to do, however everything gets lot easier because of Allah's blessings. He provides us with strength and guidance, Alhamdulillah.

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1.0 Introduction

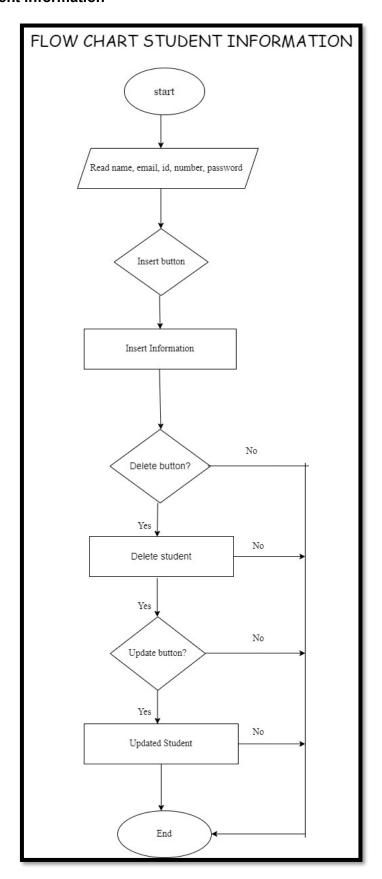
For this project, we are developing a tuition management system, that we called Brainnies Tuition Centre, which is a software solution that are designed to speed up and improve the administrative procedures that involved in managing tuition's subject packages, and feerelated activities throughout educational institutions. This system operates as an integrated framework for functions such as student enrolment, fee payment, and tuition branching. Tuition Brainnies eliminates repetitive operations, reduces administrative stress, and reduces the possibility of errors by combining capabilities, including payment process. We have 3 interfaces in total in our database, which are tuition branch, student information, and subject packages.

The first interface is student information. Students are essential to insert their information so that the tutors may see the student information without having any misunderstanding. They need to provide their name, email, phone number, student ID, and password. As a result, no one can access into the website without the student's consent. If there is an error, students have the option to update or delete the data. The second interface are tuition branch. Students have been given the option of taking lessons by online or physical class. Student that chooses online class, they are required to download Webex or Zoom applications in order to participate in the class. It's the only platforms for tutor to instruct the students. Meanwhile, the tuition centre is located in 3 different states, which are Johor, Kedah and Selangor. Each centre has a total of two branches.

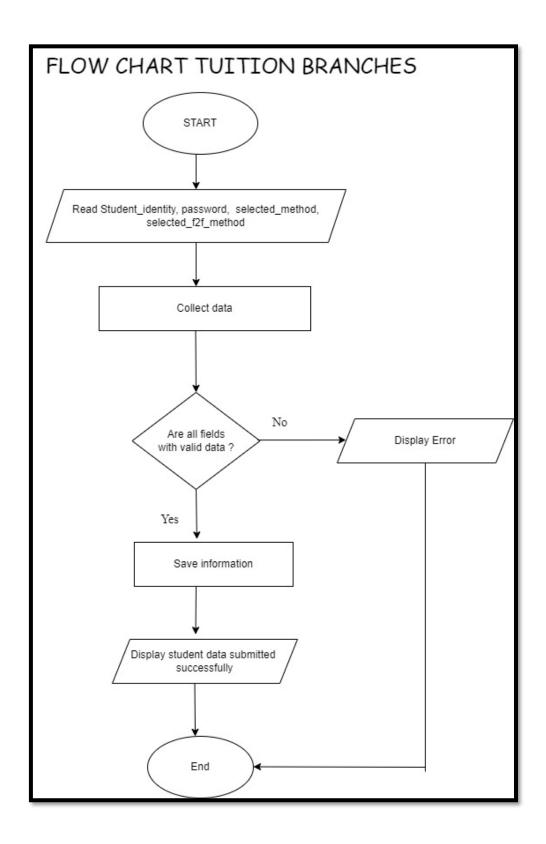
The last interface are the subject packages. There are 5 subjects in total in Brainnies Tuition Centre, which are Bahasa Melayu, English, Mathematics, Science, and History. There have been divided into 5 packages. Each students have to pay RM450 for tuition fees once they registered in Brainnies Tuition Centre. Moreover, students can get 15% off by choosing package 5 since they take all of the subject.

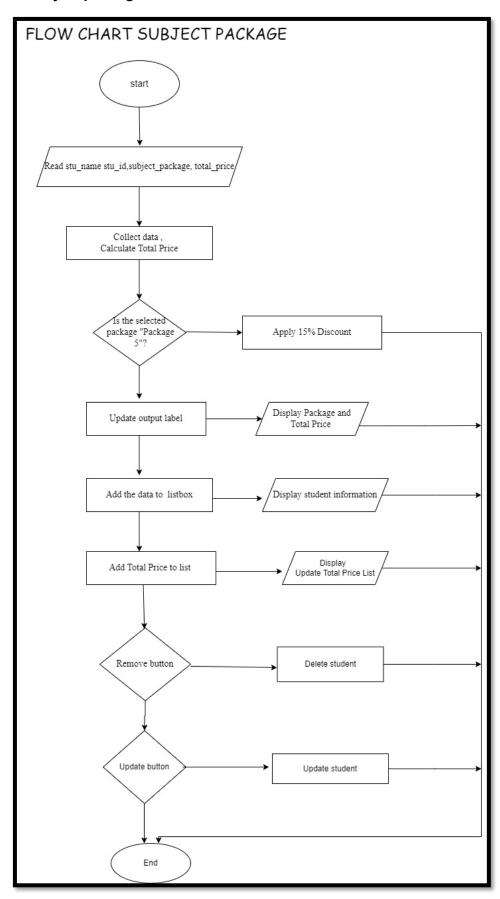
2.0 Flowchart

2.1 Student information



2.2 Tuition branches





3.0 Snapshot of coding

3.1 Student information

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

# Connect to your PySQL database
swydb = mysql.connector.connect(
host="localbost",
usen="root",
y password="",
database="tuition_management"

# Create a cursor object to execute SQL queries

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# Create a cursor object to execute SQL queries

# Create
```

```
def delete_student():
         student_id = int(student_id_entry.get())
        # Assuming student_id is the primary key for deletion
sql = "DELETE FROM student_information WHERE student_id = %s"
val = (student_id, )
        mycursor.execute(sql, val)
        mydb.commit()
        messagebox.showinfo("Success", "Data deleted successfully.")
         messagebox.showerror("Error", "Invalid input.")
         messagebox.showerror("Error", str(e))
def update_student():
        student_id = int(student_id_entry.get())
        new_phone_number = no_phone_entry.get()
new_email = email_entry.get()
       val = (new_phone_number, new_email, student_id)
        mycursor.execute(sql, val)
        mydb.commit()
        messagebox.showinfo("Success", "Student information updated!")
         messagebox.showerror("Error", str(e))
```

```
root = tk.Tk()
root.geometry('1000x900')
root.configure(bg="salmon1")
frame = tk.Frame(root,bg="salmon1")
frame.pack()
frame.config()
stu_info_frame = tk.LabelFrame(frame, text="Student Information")
stu_info_frame.grid(row=3, column=0, ipadx=20, ipady=5)
stu_info_frame.configure(bg="salmon1", fg="saddle brown", font=("Helvatica",20, "bold"))
name_label = tk.Label(stu_info_frame, text="name")
name_label.grid(row=0, column=0)
name_label.configure(fg="brown", font=("Arial",12, "bold"))
name_entry = tk.Entry(stu_info_frame, width=50)
name_entry.grid(row=1, column=0, padx=60, pady=10)
email_label = tk.Label(stu_info_frame, text="email")
email_label.grid(row=2, column=0)
email_label.configure(fg="brown", font=("Arial",12, "bold"))
email_entry.grid(row=3, column=0, padx=60, pady=10)
student_id_label= tk.Label(stu_info_frame, text="student identification")
student_id_label.grid(row=0, column=1)
student_id_label.configure(fg="brown", font=("Arial",12, "bold"))
student_id_entry = tk.Entry(stu_info_frame, width=50)
student_id_entry.grid(row=1, column=1, padx=60, pady=10)
```

```
no_phone_label= tk.Label(stu_info_frame, text="phone number")
no_phone_label.grid(row=2, column=1)
no_phone_label.configure(fg="brown", font=("Arial",12, "bold"))
no_phone_entry = tk.Entry(stu_info_frame, width=40)
no phone entry.grid(row=3, column=1, padx=60, pady=10)
password_label= tk.Label(stu_info_frame, text="password")
password label.grid(row=4, column=0)
password_label.configure(fg="brown", font=("Arial",12, "bold"))
password_entry = tk.Entry(stu_info_frame, width=40)
password_entry.grid(row=5, column=0, padx=60, pady=10)
insert_button = tk.Button(stu_info_frame, text="Register", command=student_information)
insert_button.grid(row=5, column=1)
insert_button.configure(bg="chocolate3", fg="peach puff", font=("Arial", 12 , "bold"))
delete_button = tk.Button(stu_info_frame, text="delete", command=delete_student)
delete_button.grid(row=5, column=0, columnspan=5, pady=10)
delete_button.configure(bg="chocolate3", fg="peach puff", font=("Arial", 12 , "bold"))
update_button = tk.Button(stu_info_frame, text="update", command=update_student)
update_button.grid(row=5, column=2, columnspan=4, pady=10)
update_button.configure(bg="chocolate3", fg="peach puff", font=("Arial", 12 , "bold"))
        root.update()
root.mainloop()
```

3.2 Tuition branch

```
C: > Users > thira > Downloads > Telegram Desktop > 🏓 mine_3.py > 🗘 collect_data
      import tkinter as tk
       from tkinter import messagebox
      import mysql.connector
      mydb = mysql.connector.connect(
          host="localhost",
          user="root",
          password="",
          database="tuition_management"
      mycursor = mydb.cursor()
      total prices list = []
      def collect data():
           stu_name = stu_name_entry.get()
           stu id = stu id entry.get()
           subject_package = package_var.get()
           prices = {
               "Package 1": 58,
               "Package 2": 58,
               "Package 3": 68,
               "Package 4": 78,
               "Package 5": 98,
           total_price = prices[subject_package] + 450
           if subject_package == "Package 5":
 34
               discount amount = 0.15 * total price
               disc price = total price - discount amount
               output_label.config(text=f"Total Price: RM{disc_price:.2f}")
```

```
disc_price = total_price
output_label.config(text=f"Total Price: RM{disc_price:.2f}")
    sql = "INSERT INTO subject_information (stu_name, stu_id, sub_package, total_price) VALUES (%s, %s, %s, %s)"
val = (stu_name, stu_id, subject_package, disc_price)
    mycursor.execute(sql, val)
    mydb.commit()
    output_label.config(text=f"Package: {subject_package}, Total Price: RM{disc_price:.2f}")
def remove_student():
        stu_id = int(stu_id_entry.get())
        # Delete data from the database
sql = "DELETE FROM subject_information WHERE stu_id=%s"
        val = (stu_id,)
        mycursor.execute(sql, val)
        mydb.commit()
        messagebox.showinfo("Success", "Student data deleted successfully")
        messagebox.showerror("Error", "Invalid input for student ID.")
        print(e)
        messagebox.showerror("Error", "An error occurred while deleting the student data.")
def student_update():
        stu_id = int(stu_id_entry.get())
        new_subject_package = package_var.get()
         if not new_subject_package:
             messagebox.showerror("Error", "Please select a subject package.")
```

```
return
             sql = "UPDATE subject information SET sub package=%s WHERE stu id=%s"
             val = (new subject package, stu id)
             mycursor.execute(sql, val)
            mydb.commit()
             messagebox.showinfo("Success", "Student information updated!")
       except ValueError:
            messagebox.showerror("Error", "Invalid input for student ID.")
       except Exception as e:
            messagebox.showerror("Error", str(e))
# Create Window
root = tk.Tk()
root.title("Tuition Management System")
root.geometry("800x800")
root.configure(bg="salmon1")
 label = tk.Label(root, text="Package Price", font=("", 10, "bold"), bg= "salmon1")
 label.grid(ipadx=10, ipady=10)
 prices_text = tk.Text(root, height=17, width=85, font=("Helvetica", 10))
prices_text.grid(row=2, column=0)
prices_text.insert(tk.END, "Package & Fees:\n\n")
prices_text.insert(tk.END, "Package 1: BM & BI \nPrice: RM58\n\n")
prices_text.insert(tk.END, "Package 2: MATHS & SCIENCE \nPrice: RM58\n\n")
prices_text.insert(tk.END, "Package 3: BM & HISTORY \nPrice: RM68\n\n")
prices_text.insert(tk.END, "Package 4: MATHS, SCIENCE, HISTORY \nPrice: RM78\n\n")
prices_text.insert(tk.END, "Package 5: BM, BI, MATHS, SCIENCE, HISTORY \nPrice: RM98\n\n")
prices_text.insert(tk.END, "Fees: RM450 per person\n\n")
```

```
# Frame
frame = tk.Frame(root)
frame.grid()
stu_info_frame.grid(row=0, column=0, padx=20, pady=10)
stu_name_label = tk.Label(stu_info_frame, text="Student Name:", width=50)
stu_name_label.grid(row=0, column=0)
stu_name_entry = tk.Entry(stu_info_frame, width=50)
stu name entry.grid(row=1, column=0)
stu_id_label = tk.Label(stu_info_frame, text="Student Identification Number:", width=50)
stu_id_label.grid(row=0, column=1)
stu_id_entry = tk.Entry(stu_info_frame, width=50)
stu_id_entry.grid(row=1, column=1)
package_label = tk.Label(stu_info_frame, text="Subject Package:", width=50)
package_label.grid(row=3, column=0)
package_var = tk.StringVar(stu_info_frame)
package_var.set("select Subject Package")
package_dropdown = tk.OptionMenu(stu_info_frame, package_var, "Package 1", "Package 2", "Package 3", "Package 4", "Package 5")
package_dropdown.grid(row=4, column=0)
add_button = tk.Button(root, text="Add Student", command=collect data)
add button.grid(pady=10)
button_frame = tk.LabelFrame(root, text="")
```

```
button_frame.grid(row=10, column=0, padx=10, pady=10)

delete_button = tk.Button(button_frame, text="Remove", command=remove_student)

delete_button.grid(row=10, column=1, pady=15)

# Update Button

update_button = tk.Button(button_frame, text="Update", command= student_update)

update_button.grid(row=10, column=0, pady=10)

# Total Price Label

label = tk.Label(root, text='Total Price', font=("Times New Romans", 12), bg="salmon1")

label.grid(ipadx=10, ipady=10)

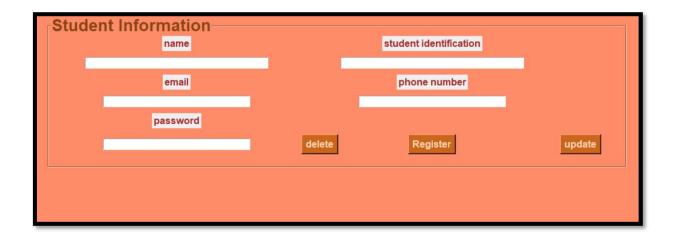
output_label = tk.Label(root, text="")

output_label.grid()

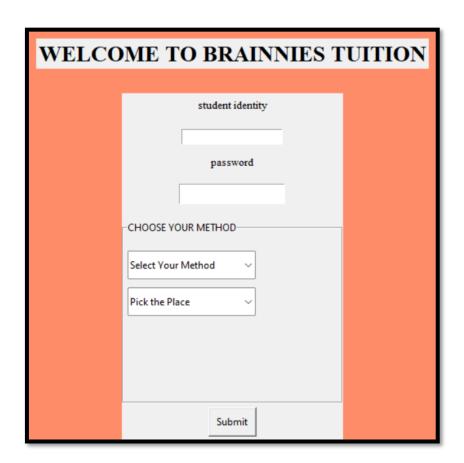
root.mainloop()
```

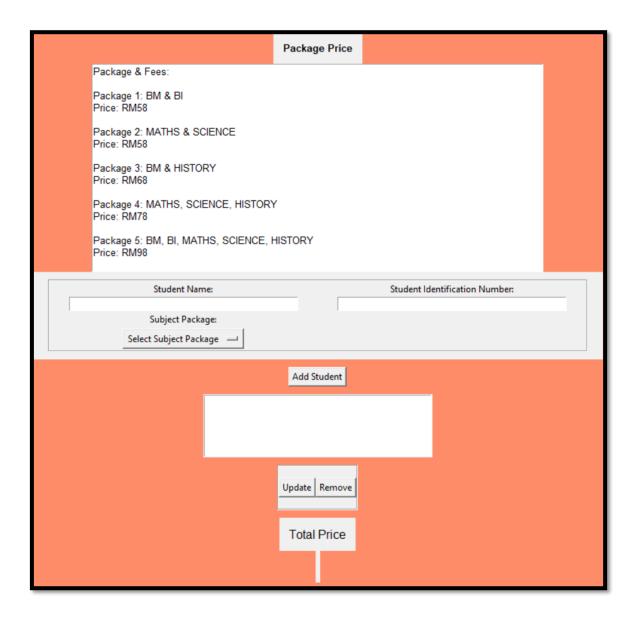
4.0 Snapshot of GUI

4.1 Student Information



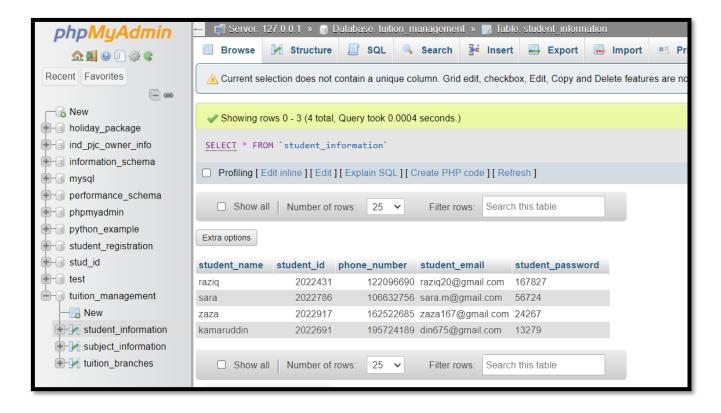
4.2 Tuition branches



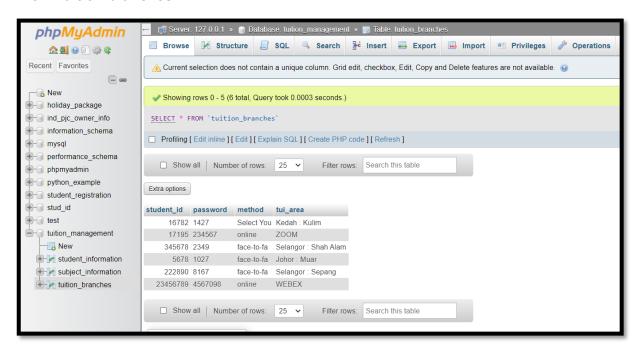


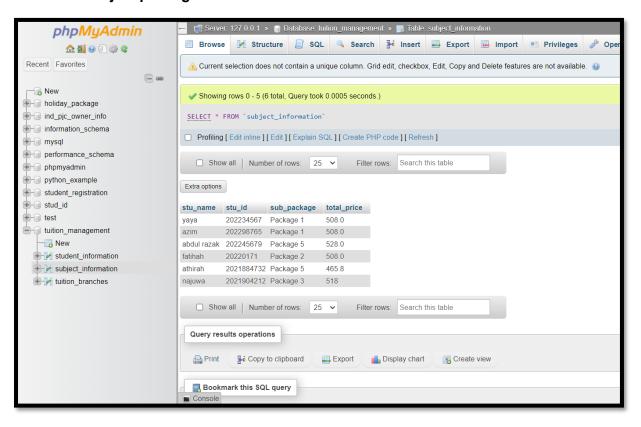
5.0 Snapshot of database

5.1 Student information



5.2 Tuition branches





6.0 Conclusion

In conclusion, we create an interactive GUI using Tkinter for students to enter their information and also for owner to calculate the total price and average price. In subject information and student information, we added buttons like add, remove and update as a function for users and owners to add data, remove it or update information. The GUI interface have connected to database where the information is stored, this is a very simple and straightforward project making it easy for owners to record student information as well as their subject information. There is also calculation to calculate the total price of the chosen subject pack.

However, there are several flaws in this system that should be addressed. The existing interface could cause difficulties for students, perhaps leading to dissatisfaction and delays. Addressing these difficulties by incorporating students' information, organizing navigation, and improving the overall design can lead to a more efficient and satisfying registration experience. For instance, having an improved instructed and well-organized interface to ensure that students and owner are able to comprehend and utilize the interface more easily. In the evolving world of academic registration systems, it is critical to consider the students' perspective and implement modifications that not only fulfil present expectations but also anticipate future requirements.