COURSE CODE: DFP40203	COURSE NAME: PYTHON PROGRAMMING	
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REGISTRATION NO: 10DDT21F1022	CLASS:DDT5A	DURATION: 2 HOURS
CLO1: Construct Python application based on given scenario (P4,PLO3)		

ANSWER : CODES

Question 1:

```
Traceback (most recent call last):
  File "C:\Users\gurmit\OneDrive\Desktop\10DDT21F1022\main.py", line 1, in <module>
    from parcel_calculator import calculate_price
ModuleNotFoundError: No module named 'parcel_calculator'

***Repl Closed***
```

    i)   Yes, I have encounter the error.
    ii)   It means that the module that it has imported doesn't exist in the folder.

main.py

```python
from parcel_calculator import calculate_price

# Get user input for parcel dimensions and weight
length = float(input("Enter parcel length in centimeters: "))
width = float(input("Enter parcel width in centimeters: "))
height = float(input("Enter parcel height in centimeters: "))
weight = float(input("Enter parcel weight in kilograms: "))

# Calculate parcel price using imported function
price = calculate_price(length, width, height, weight)

# Print parcel price to user
print("The price of your parcel is: $", price)
```

    iii)   **parcel_calculator.py**

```python
def calculate_price(length, width, height, weight):
    volume = length * width * height

    if weight<=1:
        if volume<=5000:
            price = 3
```

```
        elif volume>=5001 and volume<=10000:
            price = 5
        elif volume>10000:
            price = 7
    elif weight>1 and weight <=5:
        if volume>=0 and volume <=5000:
            price = 5
        elif volume>=5001 and volume<=10000:
            price = 7
        elif volume>10000:
            price = 9
    elif weight>5:
        if volume<=5000:
            price = 7
        elif volume>=5001 and volume<=10000:
            price = 9
        elif volume>10000:
            price = 11
    return price
```

Question 2:
gui_parcel.py

```python
import tkinter  as tk
import parcel_calculator
from database import *
from tkinter import messagebox

class ParcelCalculatorGUI:
    def __init__(self, master):
        self.master = master
        master.title("Parcel Calculator")
        master.geometry("600x300")
        master.configure(bg="purple")
        font = ("Arial",15)
        font2 = ("Arial",25)

        # Create length input label and entry field
        self.length_label = tk.Label(master, text="Welcome to
Lelemove",font=font2,bg="purple",fg="white")
        self.length_label.grid(row=0, column=0,columnspan=2)

        # Create length input label and entry field
        self.length_label = tk.Label(master, text="Length
(cm):",font=font,bg="purple",fg="white")
        self.length_label.grid(row=1, column=0)
        self.length_entry = tk.Entry(master,width=40,font=font)
        self.length_entry.grid(row=1, column=1)

        # Create width input label and entry field
```

```python
        self.width_label = tk.Label(master, text="Width
(cm):",font=font,bg="purple",fg="white")
        self.width_label.grid(row=2, column=0)
        self.width_entry = tk.Entry(master,width=40,font=font)
        self.width_entry.grid(row=2, column=1)

        # Create height input label and entry field
        self.height_label = tk.Label(master,
text="Height:",font=font,bg="purple",fg="white")
        self.height_label.grid(row=3, column=0)
        self.height_entry = tk.Entry(master,width=40,font=font)
        self.height_entry.grid(row=3, column=1)

        # Create weight input label and entry field
        self.weight_label = tk.Label(master, text="Weight
(kg):",font=font,bg="purple",fg="white")
        self.weight_label.grid(row=4, column=0)
        self.weight_entry = tk.Entry(master,width=40,font=font)
        self.weight_entry.grid(row=4, column=1)

        # Create weight input label and entry field
        self.id_label = tk.Label(master, text="Item
id:",font=font,bg="purple",fg="white")
        self.id_label.grid(row=5, column=0)
        self.id_entry = tk.Entry(master,width=40,font=font)
        self.id_entry.grid(row=5, column=1)


       # Create calculate button
        self.calculate_button = tk.Button(master, text="Calculate",
command=self.calculate_price,width=15)
        self.calculate_button.grid(row=7, column=0, columnspan=2)


        #Create insert button
        self.calculate_button = tk.Button(master,
text="Insert",command=self.insert_data,width=15)
        self.calculate_button.grid(row=8, column=0, columnspan=2)

        # Create price label
        self.price_label = tk.Label(master, text="")
        self.price_label.grid(row=6, column=0, columnspan=2)



    def calculate_price(self):
        # Get parcel dimensions and weight from entry fields
        global length
        global width
```

```python
            global height
            global weight
            global price
            global itemId
            global volume
            length = float(self.length_entry.get())
            width = float(self.width_entry.get())
            height = float(self.height_entry.get())
            weight = float(self.weight_entry.get())
            itemId = self.id_entry.get()
            volume = length * width * height


            # Calculate parcel price using imported function
            price =
parcel_calculator.calculate_price(length,width,height,weight)


            # Update price label with calculated price
            self.price_label.config(text="The price of your parcel is: $" +
str(price))
    def insert_data(self):
        try:
            sql = "INSERT INTO package VALUES (%s,%s,%s,%s,%s,%s)"
            data =
(str(itemId),str(height),str(width),str(length),str(volume),str(price))
            mycursor.execute(sql,data)
            messagebox.showinfo(message="Your application has been
submitted",title="Record Success")
            mydb.commit()

        except:
            messagebox.showinfo(message="Fail enter data into
database",title="Failed")
            mydb.rollback()
            print(str(itemId),str(height),str(width),str(length),str(volume),s
tr(price))


master = tk.Tk()
parcel_calculator_gui = ParcelCalculatorGUI(master)
master.mainloop()
```

Question 3:
database.py

```python
import mysql.connector
```

```
#create connection
mydb = mysql.connector.connect(
    user="root",
    host="localhost",
    password="",
    database="LelemoveSystem")
#create cursor

mycursor = mydb.cursor()

#create database
mycursor.execute("CREATE DATABASE IF NOT EXISTS LelemoveSystem")

table = """CREATE TABLE IF NOT EXISTS package(
Item_id VARCHAR(10) PRIMARY KEY NOT NULL ,
Item_height VARCHAR(5),
Item_width VARCHAR(5),
Item_length VARCHAR(5),
Item_volume VARCHAR(10),
Item_price VARCHAR(5))"""

mycursor.execute(table)
```
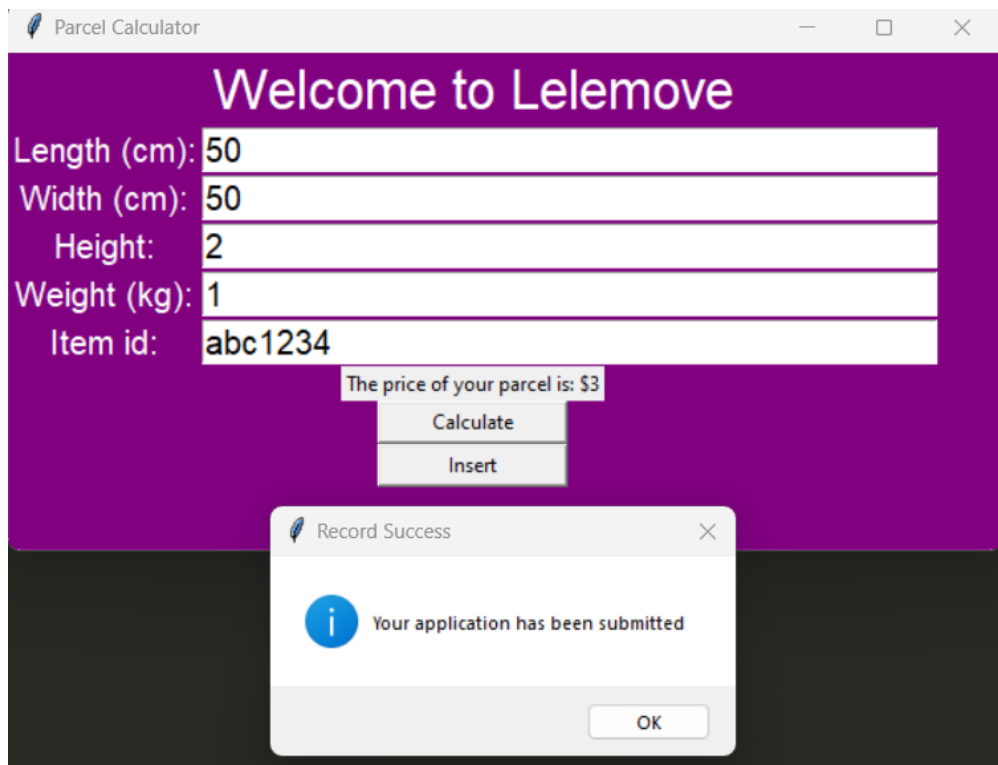
ANSWER : OUTPUT

Question 1

```
Enter parcel length in centimeters: 50
Enter parcel width in centimeters: 50
Enter parcel height in centimeters: 2
Enter parcel weight in kilograms: 1
The price of your parcel is: $ 3

***Repl Closed***
```

Question2,3

ANSWER: DATABASE SCREENSHOTS

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action		
1	Item_id 🔑	varchar(10)	utf8mb4_general_ci		No	None			🖉 Change	⊖ Drop	More
2	Item_height	varchar(5)	utf8mb4_general_ci		Yes	NULL			🖉 Change	⊖ Drop	More
3	Item_width	varchar(5)	utf8mb4_general_ci		Yes	NULL			🖉 Change	⊖ Drop	More
4	Item_length	varchar(5)	utf8mb4_general_ci		Yes	NULL			🖉 Change	⊖ Drop	More
5	Item_volume	varchar(10)	utf8mb4_general_ci		Yes	NULL			🖉 Change	⊖ Drop	More
6	Item_price	varchar(5)	utf8mb4_general_ci		Yes	NULL			🖉 Change	⊖ Drop	More

←T→				Item_id	Item_height	Item_width	Item_length	Item_volume	Item_price
🖉 Edit	🗐 Copy	⊖ Delete		abc1234	2.0	50.0	50.0	5000.0	3