Question 1

```
1 usage
def main():
    class TemperatureConversion:
        def __init__(self, temp=1):
            self._temp = temp

    class CelsiusToFahrenheit(TemperatureConversion):
        def conversion(self):
            return (self._temp * 9) / 5 + 32

    class CelsiusToKelvin(TemperatureConversion):
        def conversion(self):
            return self._temp + 273.15

    class FahrenheitToCelsius(TemperatureConversion):
        def conversion(self):
            return (self._temp - 32) * 5 / 9

    class KelvinToCelsius(TemperatureConversion):
        def conversion(self):
            return self._temp - 273.15

    tempInCelsius = float(input("Enter the temperature in Celsius: "))

    convert = CelsiusToKelvin(tempInCelsius)
    print(f"{convert.conversion()} Kelvin")

    convert = CelsiusToFahrenheit(tempInCelsius)
    print(f"{convert.conversion()} Fahrenheit")

    tempInFahrenheit = float(input("Enter the temperature in Fahrenheit: "))
    convert = FahrenheitToCelsius(tempInFahrenheit)
    print(f"{convert.conversion()} Celsius")

    tempInKelvin = float(input("Enter the temperature in Kelvin: "))
    convert = KelvinToCelsius(tempInKelvin)
    print(f"{convert.conversion()} Celsius")
```

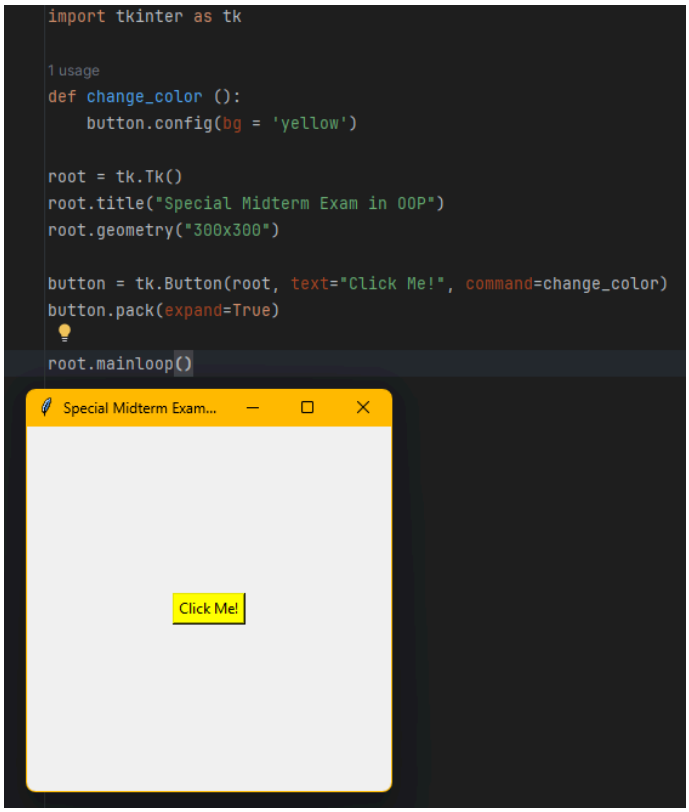
```
1   def main():
35      convert = KelvinToCelsius(tempInKelvin)
36      print(f"{convert.conversion()} Celsius")
37
38
39  main()
40
```

Main

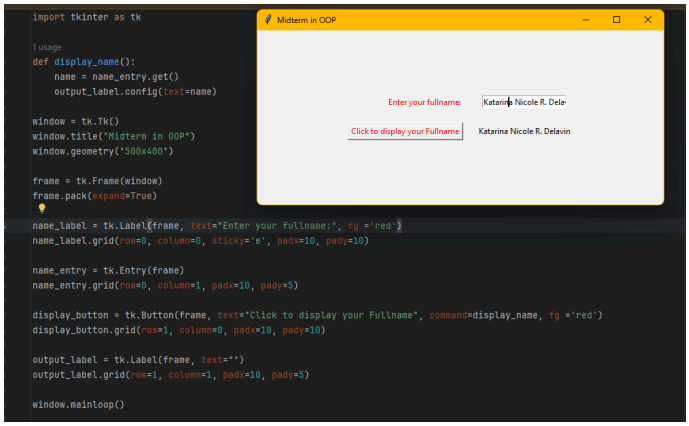
```
C:\8086\guersss\pythonProject2\.venv\Scripts\python.exe C:\Users\TIPQC\Documents\Main.py
Enter the temperature in Celsius: 25
298.15 Kelvin
77.0 Fahrenheit
Enter the temperature in Fahrenheit: 13
-10.555555555555555 Celsius
Enter the temperature in Kelvin: 15
-258.15 Celsius

Process finished with exit code 0
```

```
def main():
class TemperatureConversion:
def __init__(self, temp=1):
```

	self._temp = temp class CelsiusToFahrenheit(TemperatureConver sion): def conversion(self): return (self._temp * 9) / 5 + 32 class CelsiusToKelvin(TemperatureConversion): def conversion(self): return self._temp + 273.15 class FahrenheitToCelsius(TemperatureConver sion): def conversion(self): return (self._temp - 32) * 5 / 9 class KelvinToCelsius(TemperatureConversion): def conversion(self): return self._temp - 273.15 tempInCelsius = float(input("Enter the temperature in Celsius: ")) convert = CelsiusToKelvin(tempInCelsius) print(f"{convert.conversion()} Kelvin") convert = CelsiusToFahrenheit(tempInCelsius) print(f"{convert.conversion()} Fahrenheit") tempInFahrenheit = float(input("Enter the temperature in Fahrenheit: ")) convert = FahrenheitToCelsius(tempInFahrenheit) print(f"{convert.conversion()} Celsius") tempInKelvin = float(input("Enter the temperature in Kelvin: ")) convert = KelvinToCelsius(tempInKelvin) print(f"{convert.conversion()}

	Celsius") main()
Question 2	 import tkinter as tk def change_color (): button.config(bg = 'pink') root = tk.Tk() root.title("Special Midterm Exam in OOP") root.geometry("300x300") button = tk.Button(root, text="Click Me!", command=change_color) button.pack(expand=True) root.mainloop()

Question 3




```
import tkinter as tk


def display_name():
    name = name_entry.get()
    output_label.config(text=name)

window = tk.Tk()
window.title("Midterm in OOP")
window.geometry("500x400")

frame = tk.Frame(window)
frame.pack(expand=True)

name_label = tk.Label(frame,
text="Enter your fullname:", fg
='red')
name_label.grid(row=0, column=0,
sticky='e', padx=10, pady=10)

name_entry = tk.Entry(frame)
name_entry.grid(row=0, column=1,
padx=10, pady=5)

display_button = tk.Button(frame,
text="Click to display your
Fullname", command=display_name, fg
='red')
display_button.grid(row=1, column=0,
padx=10, pady=10)

output_label = tk.Label(frame,
text="")
output_label.grid(row=1, column=1,
padx=10, pady=5)

window.mainloop()
```
