Finals Task 5. Grading Program using Tkinter

PART 1. Grading PROGRAM
1. Design the window below.
2. The program should allow the user to input Prelim, Midterm, Pre Finals and Final Grade (Compute GPA by adding the Prelim, Midterms, (50% of Pre-Finals and 50% of the Final Grade) then divide by 3) 3. The user should be able to select which equivalent grade to view using Combo Box: (Letter Grade or NUMERIC GRADE)
4. Compute Button should compute the GPA and display the appropriate grade equivalent and other info in a Textarea (Text) as shown in the sample output
5. The Reset Button should clear the Radio Button Selection and the Text field entries should be cleared as well
6. The About button should display a dialog with the message: “Hello I’m your Name”

SAMPLE CODE

```
from tkinter import *
from tkinter import ttk
from tkinter import messagebox

class gpa:
   def __init__(self, w):
       w.config(bg="#3d4c1a")

       self.title = Label(w, text="GPA COMPUTER", fg="white",
                          font=("times new roman", 20, "bold"),
                          pady=10, bg="#3d4c1a")
       self.title.pack()

       self.input = Label(w, text="Input", fg="white",
                          font=("times new roman", 15),
                          pady=10, bg="#3d4c1a")
       self.input.place(x=20, y=50)

       self.prelim = Label(w, text="Prelim Grade:", fg="white",
                           font=("times new roman", 15),
                           pady=10, bg="#3d4c1a")
       self.prelim.place(x=20, y=100)
       self.preEn = Entry(w, fg="black", font=("times new roman", 15),
                          bg="white", width=25, justify="center")
       self.preEn.place(x=200, y=105)

       self.midterm = Label(w, text="Midterm Grade:", fg="white",
                            font=("times new roman", 15),
                            pady=10, bg="#3d4c1a")
       self.midterm.place(x=20, y=150)
```

```
        self.midEn = Entry(w, fg="black", font=("times new roman", 15),
                           bg="white", width=25, justify="center")
        self.midEn.place(x=200, y=155)

        self.prefin = Label(w, text="Pre Final Grade:", fg="white",
                            font=("times new roman", 15),
                            pady=10, bg="#3d4c1a")
        self.prefin.place(x=20, y=200)
        self.prefinEn = Entry(w, fg="black", font=("times new roman", 15),
                              bg="white", width=25, justify="center")
        self.prefinEn.place(x=200, y=205)

        self.final = Label(w, text="Final Grade:", fg="white",
                           font=("times new roman", 15),
                           pady=10, bg="#3d4c1a")
        self.final.place(x=20, y=250)
        self.finEn = Entry(w, fg="black", font=("times new roman", 15),
                           bg="white", width=25, justify="center")
        self.finEn.place(x=200, y=255)

        self.opt = Label(w, text="Choose an option:", fg="white",
                         font=("times new roman", 20, "bold"),
                         pady=10, bg="#3d4c1a")
        self.opt.place(x=45, y=300)

        self.option = ttk.Combobox(w,
                                   values=("Letter Grade", "Numeric Grade"),
                                   font=("times new roman", 10))
        self.option.place(x=275, y=320)
        self.option.set("Numeric Grade")

        self.outpt = Text(w, width=57, height=20)
        self.outpt.place(x=20, y=350)

        self.comp = Button(w, text="Compute", font=("times new roman", 12),
                           padx=10, pady=5, command=self.cg)
        self.comp.place(x=20, y=700)

        self.res = Button(w, text="Reset", font=("times new roman", 12),
                          padx=21, pady=5, command=self.r)
        self.res.place(x=144, y=700)

        self.abt = Button(w, text="About", font=("times new roman", 12),
                          padx=21, pady=5, command=self.info)
        self.abt.place(x=264, y=700)

        self.cls = Button(w, text="Close", font=("times new roman", 12),
                          padx=21, pady=5, command=self.close_app)
        self.cls.place(x=390, y=700)
```

```
  def cg(self):
      try:
          g1 = float(self.preEn.get())
          g2 = float(self.midEn.get())
          g3 = float(self.prefinEn.get())
          g4 = float(self.finEn.get())
      except ValueError:
          messagebox.showerror("ERROR!", "PLEASE ENTER NUMBERS ONLY!")
          return

      gpa = (g1 + g2 + (0.5 * g3 + 0.5 * g4)) / 3
      choice = self.option.get()

      if choice == "Numeric Grade":
          equivalent = f"{gpa:.2f}"
      else:
          if gpa >= 96:
              equivalent = "A"
          elif gpa >= 90:
              equivalent = "B"
          elif gpa>= 85:
              equivalent = "C"
          elif gpa>= 75:
              equivalent = "D"
          else:
              equivalent = "F"

      remarks = "Passed" if gpa >= 75 else "Failed"

      self.outpt.delete("1.0", END)
      self.outpt.insert(END, "Transaction Summary:\n\n")
      self.outpt.insert(END, f"Prelim Grade: {g1}\n")
      self.outpt.insert(END, f"Midterm Grade: {g2}\n")
      self.outpt.insert(END, f"Pre-Final Grade: {g3}\n")
      self.outpt.insert(END, f"Final Grade: {g4}\n")
      self.outpt.insert(END, f"Equivalent: {equivalent}\n")
      self.outpt.insert(END, f"Remarks: {remarks}\n")

  def r(self):
      self.preEn.delete(0, END)
      self.midEn.delete(0, END)
      self.prefinEn.delete(0, END)
      self.finEn.delete(0, END)
      self.outpt.delete("1.0", END)

  def info(self):
      messagebox.showinfo("ABOUT ME", "HI I AM THE DEVELOPER\nKARL FRANCIS
CUYUGAN")
```

```
    def close_app(self):
        ask = messagebox.askyesno("Exit", "Are you sure you want to exit?")
        if ask:
            exit()
```

```
from tkinter import *
from gwaComputer import gpa

if __name__ == '__main__':
    window = Tk()
    mywin = gpa(window)
    window.title('GWA COMPUTER')
    window.resizable(False, False)
    window.geometry("500x800")
    window.configure(bg="#3d4c1a")
    window.mainloop()
```

SAMPLE OUTPUT