Buccat, Daniel Robert T.
C203

November 20, 2025

Finals Task 5: Grading Program using Tkinter

Code:

```
import tkinter as tk
from tkinter import ttk, messagebox

class GradingProgram:
    def __init__(self, root):
        self.root = root
        self.root.title("Grading System")
        self.main_frame = tk.Frame(self.root)
        self.main_frame.pack(padx=10, pady=10)

        self.input_frame = tk.Frame(self.main_frame)
        self.input_frame.pack(fill="x")

        tk.Label(self.input_frame, text="Prelim Grade:").grid(row=0,
column=0, padx=5, pady=5)
        tk.Label(self.input_frame, text="Midterm Grade:").grid(row=1,
column=0, padx=5, pady=5)
        tk.Label(self.input_frame, text="Pre-Finals Grade:").grid(row=2,
column=0, padx=5, pady=5)
        tk.Label(self.input_frame, text="Finals Grade:").grid(row=3,
column=0, padx=5, pady=5)

        self.prelim_entry = tk.Entry(self.input_frame)
        self.prelim_entry.grid(row=0, column=1, padx=5, pady=5)
        self.midterm_entry = tk.Entry(self.input_frame)
        self.midterm_entry.grid(row=1, column=1, padx=5, pady=5)
        self.pre_finals_entry = tk.Entry(self.input_frame)
        self.pre_finals_entry.grid(row=2, column=1, padx=5, pady=5)
        self.final_grade_entry = tk.Entry(self.input_frame)
        self.final_grade_entry.grid(row=3, column=1, padx=5, pady=5)

        self.grade_type_frame = tk.Frame(self.main_frame)
        self.grade_type_frame.pack(fill="x")

        tk.Label(self.grade_type_frame, text="Grade
Type:").pack(side="left", padx=5, pady=5)
        self.grade_type = tk.StringVar()
        self.grade_type.set("Letter Grade")
        self.grade_type_combo = ttk.Combobox(self.grade_type_frame,
```

```
textvariable=self.grade_type, state="readonly")
        self.grade_type_combo['values'] = ('Letter Grade', 'Numeric Grade')
        self.grade_type_combo.pack(side="left", padx=5, pady=5)

        self.button_frame = tk.Frame(self.main_frame)
        self.button_frame.pack(fill="x")

        self.compute_button = tk.Button(self.button_frame, text="Compute",
command=self.compute_grade)
        self.compute_button.pack(side="left", padx=5, pady=5)
        self.reset_button = tk.Button(self.button_frame, text="Reset",
command=self.reset_fields)
        self.reset_button.pack(side="left", padx=5, pady=5)
        self.about_button = tk.Button(self.button_frame, text="About",
command=self.about)
        self.about_button.pack(side="left", padx=5, pady=5)
        self.close_button = tk.Button(self.button_frame, text="Close",
command=self.close_app)
        self.close_button.pack(side="left", padx=5, pady=5)

        self.output_frame = tk.Frame(self.main_frame)
        self.output_frame.pack(fill="both", expand=True)

        self.output_text = tk.Text(self.output_frame, height=10, width=40)
        self.output_text.pack(padx=5, pady=5)
        self.output_text.config(state="disabled")

    def compute_grade(self):
        try:
            prelim = float(self.prelim_entry.get())
            midterm = float(self.midterm_entry.get())
            pre_finals = float(self.pre_finals_entry.get())
            final_grade = float(self.final_grade_entry.get())

            gpa = (prelim + midterm + (0.5 * pre_finals) + (0.5 *
final_grade)) / 3

            if self.grade_type.get() == "Letter Grade":
                if gpa >= 96:
                    grade = "A+"
                elif gpa >= 93:
                    grade = "A"
                elif gpa >= 88:
```

```
                    grade = "B"
                elif gpa >= 83:
                    grade = "B-"
                elif gpa >= 78:
                    grade = "C"
                elif gpa >= 76:
                    grade = "D"
                elif gpa >= 75:
                    grade = "E"
                else:
                    grade = "F"
            else:
                if gpa >= 97:
                    grade = "1.00"
                elif gpa >= 94:
                    grade = "1.25"
                elif gpa >= 90:
                    grade = "1.50"
                elif gpa >= 87:
                    grade = "1.75"
                elif gpa >= 84:
                    grade = "2.00"
                elif gpa >= 81:
                    grade = "2.25"
                elif gpa >= 78:
                    grade = "2.50"
                elif gpa >= 76:
                    grade = "2.75"
                elif gpa >= 75:
                    grade = "3.00"
                else:
                    grade = "5.00"

            self.output_text.config(state="normal")
            self.output_text.delete(1.0, "end")
            self.output_text.insert("end", "Transaction Summary\n\n")
            self.output_text.insert("end", f"Prelim Grade: {prelim:.2f}\n")
            self.output_text.insert("end", f"Midterm Grade:
{midterm:.2f}\n")
            self.output_text.insert("end", f"Pre Finals:
{pre_finals:.2f}\n")
            self.output_text.insert("end", f"Finals: {final_grade:.2f}\n")
            self.output_text.insert("end", f"GPA is: {gpa:.2f}\n")
```

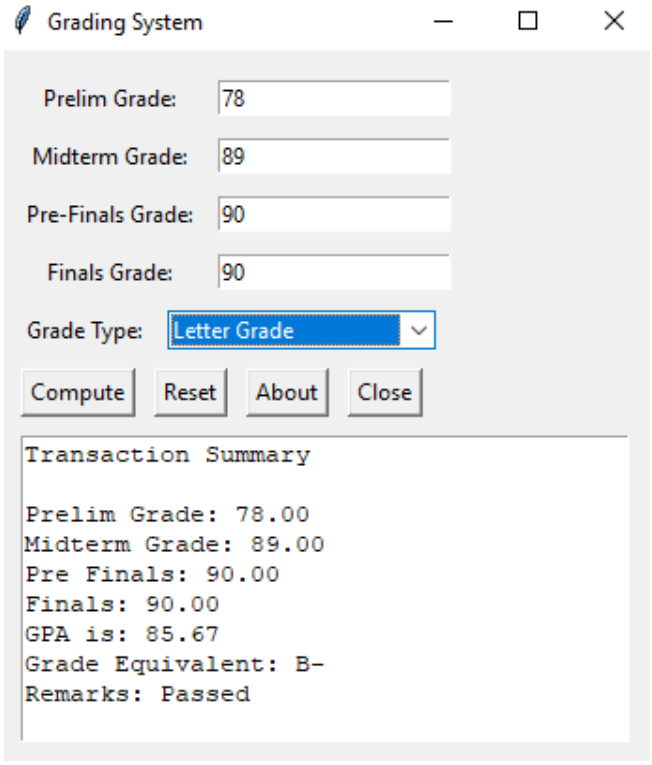
```
            self.output_text.insert("end", f"Grade Equivalent: {grade}\n")
            if gpa >= 75:
                self.output_text.insert("end", "Remarks: Passed\n")
            else:
                self.output_text.insert("end", "Remarks: Failed\n")
            self.output_text.config(state="disabled")
        except ValueError:
            messagebox.showerror("Error", "Invalid input")

    def reset_fields(self):
        self.prelim_entry.delete(0, "end")
        self.midterm_entry.delete(0, "end")
        self.pre_finals_entry.delete(0, "end")
        self.final_grade_entry.delete(0, "end")
        self.output_text.config(state="normal")
        self.output_text.delete(1.0, "end")
        self.output_text.config(state="disabled")
        self.grade_type.set("Letter Grade")

    def about(self):
        messagebox.showinfo("About", "Hello I am Daniel Robert T. Buccat")

    def close_app(self):
        if messagebox.askyesno("Confirm", "Are you sure you want to
exit?"):
            self.root.destroy()

if __name__ == "__main__":
    root = tk.Tk()
    app = GradingProgram(root)
    root.mainloop()
```

Buccat, Daniel Robert T.
C203

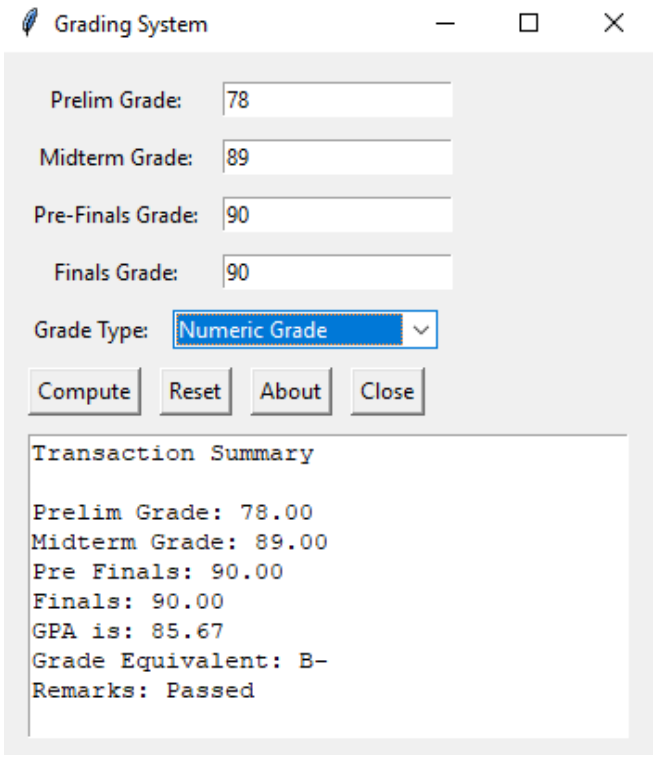
November 20, 2025

Output:

Letter Grade:

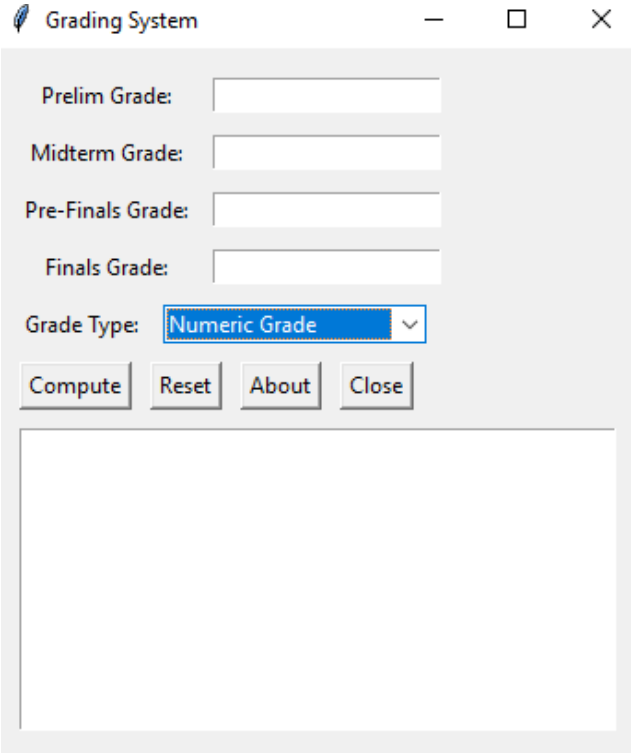


Numeric Grade:

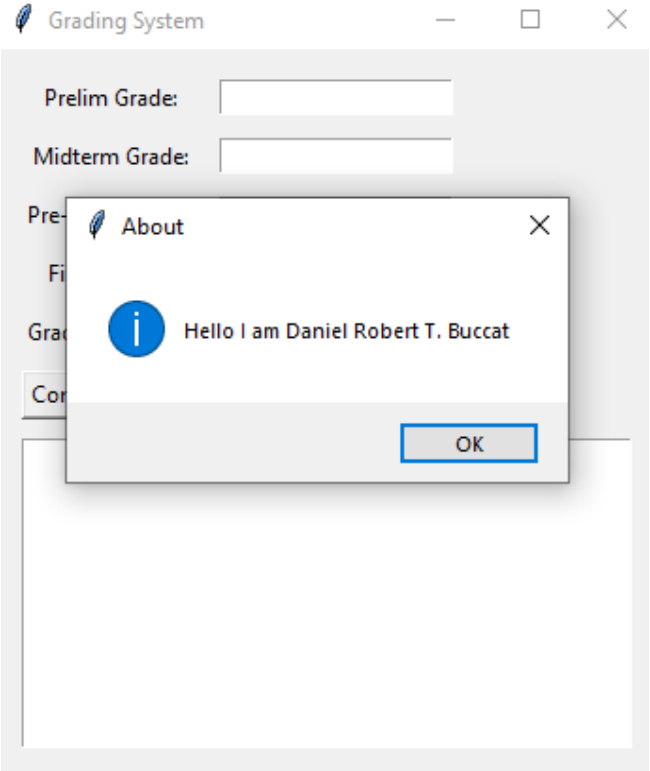


Buccat, Daniel Robert T. **November 20, 2025**
C203

Reset Button:



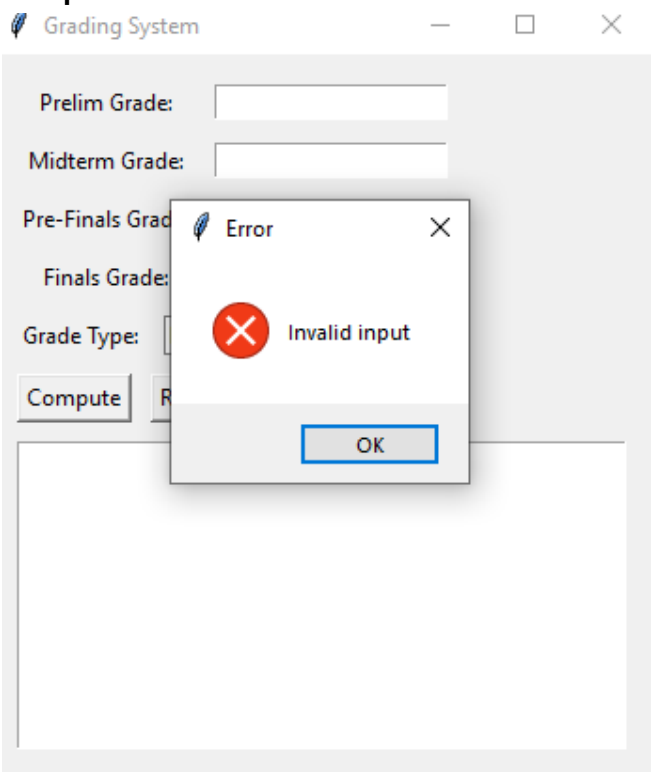
About Button:



Buccat, Daniel Robert T.
C203

November 20, 2025

Compute Button:



Close Button: