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BSCS-C204

## Finals Lab Task 4. Python GUI using TKINTER

7. See sample output below:

The screenshot shows a Tkinter window titled "User Inputs:" with a light blue background. It contains three input fields: "Length of Call (in minutes):" with a text entry box containing "13", "Destination Code:" with a dropdown menu showing "Asian Region", and "Time Code:" with two radio buttons, "Day Time" (unselected) and "Night Time" (selected). Below these inputs is a "Transaction Summary..." box with a white background, displaying the following information: "Duration of Call: :13minute(s)", "Destination Code: :Asian Region", "Time Code: :Night Time", and "Total Charge is: :Php175.5". To the left of this box, the text "**TOTAL CHARGE:**" is displayed. At the bottom of the window are four buttons: "Compute Charge", "Reset", "About", and "Close".

**Rubrics: Form Design and Layout : 10 points**

**Program Correctness : 40 points (Reset – 5 pts., About – 5 pts. , Compute – 30 pts.)**

## Source Code:

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

1 usage
class CallChargeApp:

    def __init__(self, root):
        self.root = root
        self.root.title("Long Distance Call Charge")
        self.root.geometry("550x380")

        # --- Rates Table ---
        self.day_rates = {
            "American Region": (50, 3),
            "Asian Region": (30, 2),
            "African Region": (40, 3),
            "European Region": (35, 2)
        }

        self.night_rates = {
            "American Region": (45, 3),
            "Asian Region": (27, 2),
            "African Region": (36, 3),
            "European Region": (30, 2)
        }

        # --- frame user input ---
        input_frame = tk.LabelFrame(self.root, text="User Inputs:", padx=10, pady=10)
        input_frame.pack(fill="x", padx=10, pady=5)

        # Length of call
        tk.Label(input_frame, text="Length of Call (in minutes):").grid(row=0, column=0, sticky="w")
        self.length_entry = tk.Entry(input_frame, width=10)
        self.length_entry.grid(row=0, column=1, padx=5, pady=5)

        # Destination Combobox
        tk.Label(input_frame, text="Destination Code:").grid(row=1, column=0, sticky="w")
        self.destination = ttk.Combobox(input_frame, values=list(self.day_rates.keys()), width=17, state="readonly")
        self.destination.grid(row=1, column=1)
```

```

tk.Label(input_frame, text="Destination Code:").grid(row=1, column=0, sticky="w")
self.destination = ttk.Combobox(input_frame, values=list(self.day_rates.keys()), width=17, state="readonly")
self.destination.grid(row=1, column=1)
self.destination.set("American Region")

# Radio buttons
tk.Label(input_frame, text="Time Code").grid(row=2, column=0, sticky="w")
self.timecode = tk.StringVar()
tk.Radiobutton(input_frame, text="Day Time", variable=self.timecode, value="day").grid(row=2, column=1, sticky="w")
tk.Radiobutton(input_frame, text="Night Time", variable=self.timecode, value="night").grid(row=3, column=1, sticky="w")
self.timecode.set("day")

# --- frame summary ---
summary_frame = tk.LabelFrame(self.root, text="Transaction Summary:", padx=10, pady=10)
summary_frame.pack(fill="both", expand=True, padx=10, pady=5)

self.summary_text = tk.Text(summary_frame, height=8, width=50)
self.summary_text.pack()

# --- buttons ---
btn_frame = tk.Frame(self.root)
btn_frame.pack(pady=5)

tk.Button(btn_frame, text="Compute Charge", width=15, command=self.compute_charge).grid(row=0, column=0, padx=4)
tk.Button(btn_frame, text="Reset", width=10, command=self.reset_fields).grid(row=0, column=1, padx=4)
tk.Button(btn_frame, text="About", width=10, command=self.show_about).grid(row=0, column=2, padx=4)
tk.Button(btn_frame, text="Close", width=10, command=root.destroy).grid(row=0, column=3, padx=4)

# --- compute ---
1 usage
def compute_charge(self):
    try:
        minutes = int(self.length_entry.get())
        if minutes <= 0:
            raise ValueError
    except:
        messagebox.showerror(title="Invalid Input", message="Please enter a valid numeric value for minutes.")
        return

```

```

destination = self.destination.get()
time = self.timecode.get()

# S time: str = self.timecode.get() :
if time == "day":
    rate, interval = self.day_rates[destination]
else:
    rate, interval = self.night_rates[destination]

# compute charge
blocks = (minutes + interval - 1) // interval
total_charge = blocks * rate

# output summary
self.summary_text.delete(index1: "1.0", tk.END)
self.summary_text.insert(tk.END, chars: f"Duration of Call: {minutes} minute(s)\n")
self.summary_text.insert(tk.END, chars: f"Destination Code: {destination}\n")
self.summary_text.insert(tk.END, chars: f"Time Code: {'Day Time' if time=='day' else 'Night Time'}\n")
self.summary_text.insert(tk.END, chars: f"Total Charge is: Php {total_charge:.2f}")

# -----reset -----
1 usage
def reset_fields(self):
    self.length_entry.delete(first: 0, tk.END)
    self.destination.set("American Region")
    self.timecode.set("day")
    self.summary_text.delete(index1: "1.0", tk.END)

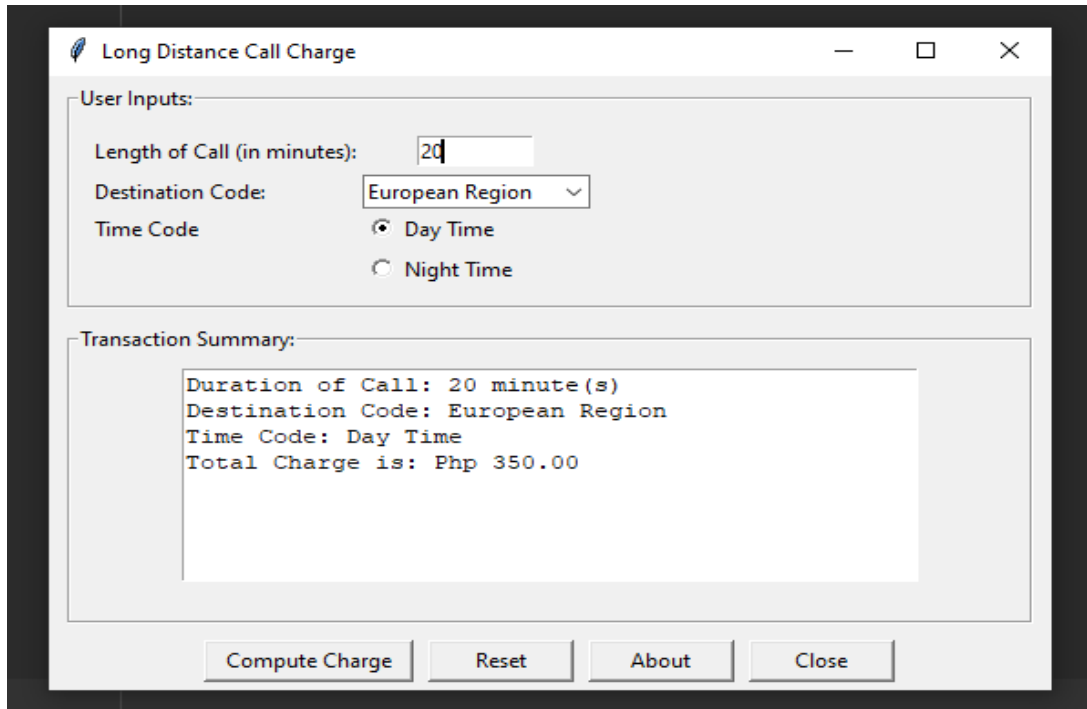
# --- about ---
1 usage
def show_about(self):
    messagebox.showinfo(title: "About", message: "Hello I'm your Long Distance Call Charge")

# ----- RUN APP -----
root = tk.Tk()
app = CallChargeApp(root)
root.mainloop()

```

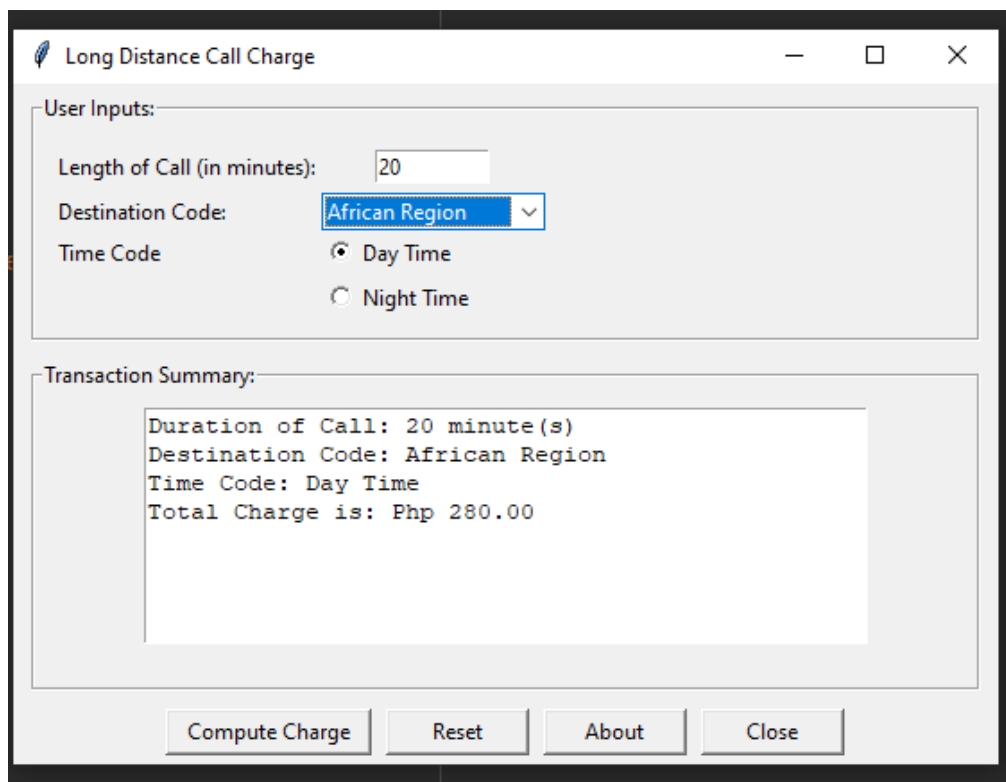
## Sample Output:

### Day Time




The screenshot shows a window titled "Long Distance Call Charge". It has two main sections: "User Inputs:" and "Transaction Summary:". In the "User Inputs:" section, "Length of Call (in minutes):" is set to 20, "Destination Code:" is set to "European Region", and "Time Code" has "Day Time" selected. The "Transaction Summary:" section displays the following text: "Duration of Call: 20 minute(s)", "Destination Code: European Region", "Time Code: Day Time", and "Total Charge is: Php 350.00". At the bottom, there are four buttons: "Compute Charge", "Reset", "About", and "Close".

Field	Value
Length of Call (in minutes)	20
Destination Code	European Region
Time Code	Day Time
Total Charge	Php 350.00



The screenshot shows the same "Long Distance Call Charge" window. In this instance, "Destination Code:" is set to "African Region". The "Transaction Summary:" section displays: "Duration of Call: 20 minute(s)", "Destination Code: African Region", "Time Code: Day Time", and "Total Charge is: Php 280.00". The buttons at the bottom remain the same.

Field	Value
Length of Call (in minutes)	20
Destination Code	African Region
Time Code	Day Time
Total Charge	Php 280.00

 Long Distance Call Charge — □ ×

User Inputs:


Length of Call (in minutes):

Destination Code: Asian Region ▼

Time Code ☒ Day Time ☐ Night Time

Transaction Summary:

```
Duration of Call: 20 minute(s)
Destination Code: Asian Region
Time Code: Day Time
Total Charge is: Php 300.00
```

 Long Distance Call Charge — □ ×

User Inputs:

Length of Call (in minutes):

Destination Code: American Region ▼

Time Code ☒ Day Time ☐ Night Time

Transaction Summary:

```
Duration of Call: 20 minute(s)
Destination Code: American Region
Time Code: Day Time
Total Charge is: Php 350.00
```

## Night time:

The screenshot shows a window titled "Long Distance Call Charge". It has a standard Windows-style title bar with minimize, maximize, and close buttons. The window is divided into two main sections: "User Inputs:" and "Transaction Summary:". In the "User Inputs:" section, there is a text box for "Length of Call (in minutes):" containing the value "20", a dropdown menu for "Destination Code:" set to "American Region", and radio buttons for "Time Code" with "Night Time" selected. The "Transaction Summary:" section contains a text area with the following text: "Duration of Call: 20 minute(s)", "Destination Code: American Region", "Time Code: Night Time", and "Total Charge is: Php 315.00". At the bottom of the window, there are four buttons: "Compute Charge", "Reset", "About", and "Close".

Long Distance Call Charge

User Inputs:

Length of Call (in minutes): 20

Destination Code: American Region

Time Code: ☐ Day Time ☒ Night Time

Transaction Summary:

Duration of Call: 20 minute(s)  
Destination Code: American Region  
Time Code: Night Time  
Total Charge is: Php 315.00

Compute Charge Reset About Close

This screenshot shows the same "Long Distance Call Charge" application window, but with the "Destination Code" dropdown menu set to "Asian Region". The "Length of Call" remains at 20 minutes, and "Night Time" is still selected for the "Time Code". The "Transaction Summary:" section now displays: "Duration of Call: 20 minute(s)", "Destination Code: Asian Region", "Time Code: Night Time", and "Total Charge is: Php 270.00". The buttons at the bottom ("Compute Charge", "Reset", "About", "Close") are identical to the previous screenshot.

Long Distance Call Charge

User Inputs:

Length of Call (in minutes): 20

Destination Code: Asian Region

Time Code: ☐ Day Time ☒ Night Time

Transaction Summary:

Duration of Call: 20 minute(s)  
Destination Code: Asian Region  
Time Code: Night Time  
Total Charge is: Php 270.00

Compute Charge Reset About Close

Long Distance Call Charge

User Inputs:

Length of Call (in minutes):

Destination Code:

Time Code ☐ Day Time ☒ Night Time

Transaction Summary:

Duration of Call: 20 minute(s)  
Destination Code: African Region  
Time Code: Night Time  
Total Charge is: Php 252.00

Compute Charge Reset About Close

Long Distance Call Charge

User Inputs:

Length of Call (in minutes):

Destination Code:

Time Code ☐ Day Time ☒ Night Time

Transaction Summary:

Duration of Call: 20 minute(s)  
Destination Code: European Region  
Time Code: Night Time  
Total Charge is: Php 300.00

Compute Charge Reset About Close

## About:

