import tkinter as tk

def is\_even\_a\_odd\_b(*s*):

*# Initialize counters for a's and b's*

    count\_a = 0

    count\_b = 0

*# Loop through each character in the string*

    for c in s:

        if c == 'a':

            count\_a += 1

        elif c == 'b':

            count\_b += 1

*# Check if the string has even a's and odd b's*

    if count\_a % 2 == 0 and count\_b % 2 == 1:

        return "YES"

    else:

        return "NO"

*# Create a function to handle button click event*

def handle\_click():

*# Get the input string from the entry widget*

    s = entry.get()

*# Check if the input string is in the language L*

    result = is\_even\_a\_odd\_b(s)

*# Update the label text with the result*

    label.config(*text*=result)

*# Create the GUI*

root = tk.Tk()

root.title("PA 02")

root.geometry("400x150")

*# Create the input label and entry widget*

input\_label = tk.Label(root, *text*="Enter a string containing even a's and odd b's:")

input\_label.pack(*pady*=(20, 5))

entry = tk.Entry(root)

entry.pack(*pady*=5)

*# Create the button widget*

button = tk.Button(root, *text*="Check", *command*=handle\_click)

button.pack(*pady*=5)

*# Create the result label*

label = tk.Label(root, *text*="")

label.pack()

*# Center the window on the screen*

root.eval('tk::PlaceWindow . center')

*# Start the main event loop*

root.mainloop()