import tkinter as tk

from random import randrange

window = tk.Tk()

window.title("Guessing Game")

lblInst = tk.Label(window, text = "Guess a number from 0 to 9")

lblLine0 = tk.Label(window, text = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

lblNoGuess = tk.Label(window, text = "No of Guesses: 0")

lblMaxGuess = tk.Label(window, text = "Max Guess: 3")

lblLine1 = tk.Label(window, text = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

lblLogs = tk.Label(window, text="Game Logs")

lblLine2 = tk.Label(window, text = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

# create the buttons

buttons = []

for index in range(0, 10):

button = tk.Button(window, text=index, command=lambda index=index : process(index), state=tk.DISABLED)

buttons.append(button)

btnStartGameList = []

for index in range(0, 1):

btnStartGame = tk.Button(window, text="Start Game", command=lambda : startgame(index))

btnStartGameList.append(btnStartGame)

# append elements to grid

lblInst.grid(row=0, column=0, columnspan=5)

lblLine0.grid(row=1, column=0, columnspan=5)

lblNoGuess.grid(row=2, column=0, columnspan=3)

lblMaxGuess.grid(row=2, column=3, columnspan=2)

lblLine1.grid(row=3, column=0, columnspan=5)

lblLogs.grid(row=4, column=0, columnspan=5) # row 4 - 8 is reserved for showing logs

lblLine2.grid(row=9, column=0, columnspan=5)

for row in range(0, 2):

for col in range(0, 5):

i = row \* 5 + col # convert 2d index to 1d. 5= total number of columns

buttons[i].grid(row=row+10, column=col)

btnStartGameList[0].grid(row=13, column=0, columnspan=5)

# Main game logic

guess = 0

totalNumberOfGuesses = 0

secretNumber = randrange(10)

print(secretNumber)

lblLogs = []

guess\_row = 4

# reset all variables

def init():

global buttons, guess, totalNumberOfGuesses, secretNumber, lblNoGuess, lblLogs, guess\_row

guess = 0

totalNumberOfGuesses = 0

secretNumber = randrange(10)

print(secretNumber)

lblNoGuess["text"] = "Number of Guesses: 0"

guess\_row = 4

# remove all logs on init

for lblLog in lblLogs:

lblLog.grid\_forget()

lblLogs = []

def process(i):

global totalNumberOfGuesses, buttons, guess\_row

guess = i

totalNumberOfGuesses += 1

lblNoGuess["text"] = "Number of Guesses: " + str(totalNumberOfGuesses)

# check if guess match secret number

if guess == secretNumber:

lbl = tk.Label(window, text="Your guess was right. You won! :) ", fg="green")

lbl.grid(row=guess\_row, column=0, columnspan=5)

lblLogs.append(lbl)

guess\_row += 1

for b in buttons:

b["state"] = tk.DISABLED

else:

# give player some hints

if guess > secretNumber:

lbl = tk.Label(window, text="Secret number is less than your current guess :)", fg="red")

lbl.grid(row=guess\_row, column=0, columnspan=5)

lblLogs.append(lbl)

guess\_row += 1

else:

lbl = tk.Label(window, text="Secret number is greater than your current guess :)", fg="red")

lbl.grid(row=guess\_row, column=0, columnspan=5)

lblLogs.append(lbl)

guess\_row += 1

# game is over when max no of guesses is reached

if totalNumberOfGuesses == 3:

if guess != secretNumber:

lbl = tk.Label(window, text="Max guesses reached. You lost! :)", fg="red")

lbl.grid(row=guess\_row, column=0, columnspan=5)

lblLogs.append(lbl)

guess\_row += 1

for b in buttons:

b["state"] = tk.DISABLED

buttons[i]["state"] = tk.DISABLED

status = "none"

def startgame(i):

global status

for b in buttons:

b["state"] = tk.NORMAL

if status == "none":

status = "started"

btnStartGameList[i]["text"] = "Retart Game"

else:

status = "restarted"

init()

print("Game started")

window.mainloop()