**Dice Rolling GUI Application**

**Overview**

This Python application simulates the rolling of a six-sided dice using a graphical user interface (GUI). The dice is represented by images of the six dice faces, and every time the user clicks the "Roll the Dice" button, a new random image (representing the dice face) is displayed.

**Features:**

* User-friendly GUI for rolling dice.
* Displays a random dice face each time the button is clicked.
* Uses Tkinter for the GUI and the Pillow library to handle images.

**Requirements**

To run this application, you need the following Python packages:

1. tkinter: Comes with Python, no need for installation.
2. Pillow: Install via pip if not installed:

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pip install Pillow

**Code Explanation**

**1. Import Libraries**

import tkinter

from PIL import Image, ImageTk

import random

* **tkinter**: Used to create the GUI.
* **PIL (Image, ImageTk)**: Used to handle image loading and displaying.
* **random**: Used to select a random dice face.

**2. Create Main Window**

root = tkinter.Tk()

root.geometry('400x400')

root.title('DataFlair Roll the Dice')

* Initializes the main window and sets its size and title.

**3. Add Labels and Heading**

BlankLine = tkinter.Label(root, text="")

BlankLine.pack()

HeadingLabel = tkinter.Label(root, text="Hello from DataFlair!",

fg = "light green", bg = "dark green", font="Helvetica 16 bold italic")

HeadingLabel.pack()

* Adds a heading with customized text, font, and colors.

**4. Load and Display Dice Image**

dice = ['die1.png', 'die2.png', 'die3.png', 'die4.png', 'die5.png', 'die6.png']

DiceImage = ImageTk.PhotoImage(Image.open(random.choice(dice)))

ImageLabel = tkinter.Label(root, image=DiceImage)

ImageLabel.pack(expand=True)

* Loads a random dice image from the available six faces and displays it in the window.

**5. Define Function to Roll the Dice**

def rolling\_dice():

DiceImage = ImageTk.PhotoImage(Image.open(random.choice(dice)))

ImageLabel.configure(image=DiceImage)

ImageLabel.image = DiceImage

* This function selects a new random dice face and updates the image in the GUI.

**6. Add Button to Trigger Dice Roll**

button = tkinter.Button(root, text='Roll the Dice', fg='blue', command=rolling\_dice)

button.pack(expand=True)

* Adds a button to roll the dice. Clicking this button calls the rolling\_dice function.

**7. Start the Main Application Loop**

root.mainloop()

* Starts the main event loop of the application, keeping the window open and responsive.