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1  """demo by Paul of the GUI"""
2
3  import tkinter as tk  #Load the tkinter library (module)
4
5  id = 0
6
7  #I did not impliment the abstract class
8  class Polygon():
9      def sides():
10         return "I have 0 sides"
11
12  class Square(Polygon):
13      def sides(self):
14         return "I is tri and have 3"
15
16  class Triangle(Polygon):
17      def sides(self):
18         return "Me square and 4"
19
20  class Pentagon(Polygon):
21      def sides(self):
22         return "Sir Pentagon, 5"
23
24  #instantiate the objects
25  square = Square()
26  trinagle = Triangle()
27  pent = Pentagon()
28
29  #add them to a list
30  shapes = [square, trinagle, pent]
31
32  #make a main window
33  root = tk.Tk()  #root will be the name of the window
34  root.title("My first programme")
35  root.geometry("600x400")  #Size in pixels
36  root.configure(background='Green')  #Background Colour
37  root.resizable(False, False)  #Can't resize window
38
39  #button functions
40  def minus():
41      global id #allow the function to access the id defined above
42      id = id -1
43      if id < 0:  #check if the id is negative, wrap it to the end
44         id = len(shapes)-1
45      idText.config(text = "ID " + str(id))  #change the buttons text
46      myText.config(text = shapes[id].sides())
47  def plus():
48      global id
49      id = id +1
50      if id == len(shapes):
51         id=0
52      idText.config(text = "ID " + str(id))
53      myText.config(text = shapes[id].sides())
54
55
56  #Buttons
57  minusButton = tk.Button(root, text="<", font=("Arial", 20), command=minus)
58  minusButton.place(relx=0.2, rely=0.7, relwidth=0.2, relheight=0.1)
59
60  plusButton = tk.Button(root, text=">", font=("Arial", 20), command=plus)
61  plusButton.place(relx=0.2, rely=0.5, relwidth=0.2, relheight=0.1)

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62 |
63 | #lables
64 | idText = tk.Label(root, text="ID = 0",font=("Arial", 20))
65 | idText.place(relx=0.2,rely=0.05,relwidth=0.6,relheight=0.1)
66 |
67 | myText = tk.Label(root, text="I is tri and have 3",font=("Arial", 20))
68 | myText.place(relx=0.2,rely=0.2,relwidth=0.6,relheight=0.2)
69 |
70 | #The main loop to keep processing user events
71 | root.mainloop()
```