I Wish I Knew How To …

Begin Programing Python 3 GUI With IDLE

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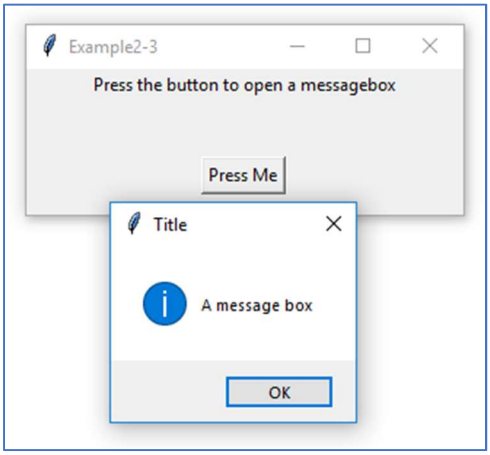
Add a Button

Buttons can be used to run code in a function that can be used to run code, such as showing a message box. This example will place the button on the window and when the button is pressed will run a function that will show a message box. Below is a screen grab of the running program.

Figure 14. Example 2-3: Add a Button



Example 2-3 shows a window with a label and button, and pressing the button shows the message box. Below is the code that runs the program and each line will be described.

Code 4. Example 2-3: Button Activation

```
#Import the tkinter library
from tkinter import *
from tkinter import messagebox

#Create a window
window=Tk()
#Change the Window Title
window.title("Example2-3")
#Change the dimension of the window
window.geometry("300x100")

#Add a label
Label1=Label(window, text="Press the button to open a messagebox",justify=CENTER)
Label1.pack(side="top")

#Add a function
def SomeAction():
   messagebox.showinfo("Title","A message box")

#Add a button
```

```
Button1=Button(window,text="Press Me", command=SomeAction)
Button1.place(x=120,y=60)

window.mainloop()
```

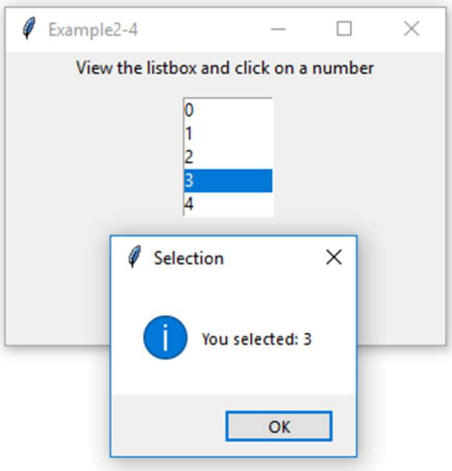
Both the messagebox and other library functions are added and will be used in the rest of the program. A new instance of the window is created and placed in the variable called window. The title of the window is *Example2-3* and the window has a width of 300 pixels by 100 pixels. A centered label is added and placed at the top of the window. When the Button1 instance is created, pressing the button will execute code in the function called *SomeAction*. A function *SomeAction* is defined and a message box will be shown.

This example shows how to add a button and run a function when the button is pressed.

Listbox

Listbox widgets are able to hold values, usually in lists, which can be selected. These selections can then be used for other parts of the program. The purpose of the listbox is to have selection data placed on a widget control and then the user can select one of the items and then a message box is shown with the selected value.

Figure 15. Example 2-4: Listbox Screen Grab



The screen grab shows the value 3 has been selected with the mouse and then a message box is opened and then shows the selected data.

Code 5. Example 2-4: Create a Listbox

```
#Import the tkinter library
from tkinter import *
from tkinter import messagebox
from tkinter import Listbox

#Create a window
```

Index

The ‘I Wish I Knew’ series contains technical data and advice that makes sense and contains practical and numerous examples with explanations to allow you to ease into the steep programming curve. You can extend Python applications today!

This book “I Wish I Knew How to … Begin Programming Python 3 GUI with IDLE” shows you how to use the popular Python 3 programming language to create controls and interact with forms/windows on Windows, Ubuntu, and Raspberry Pi 32-bit Desktops. Most of the examples work on the Macintosh computer, although there are some issues that need to be worked out with the latest operating system.

There are many books that create console examples for Python, which is great to determine that the logic of a program works well. However, there is very little information on creating and controls and interact with forms and windows with Python 3. This is where this book is helpful.

There are 17 chapters and contains over 175 pages with over 70 example programs.
Examples include …. and much more. Many screenshots have been added to show the results of the code with an index to help find topics quickly. All examples have been tested in 32-bit and 64-bit modes (where available) and the ebook is pdf formatted with all examples including Python 3 code.

Almost all these examples create controls without using global variables. Global variables can easily cause issues when the program becomes larger which creates difficult-to-detect logical errors.

Topics of examples include windows/forms, listbox, scrollbar, drop-down menus, buttons, labels, additional widgets, functions, classes/module introduction, text files, canvas, SQLite database introduction, and more.

There are many different types of ways to edit code, and the IDLE IDE is a common free version that is available for many operating systems. It’s a great way to start!

Happy programming!

Eugene

Eugene Dakin MBA, Ph.D., P.Chem., is an author of many computer reference material books, and has many years of experience in the programming industry.

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