

Tkinter + lambda

WE'LL COVER THE FOLLOWING ^

- Wrapping Up

We'll start with Tkinter since it's included with the standard Python package. Here's a really simple script with three buttons, two of which are bound to their event handler using a lambda:

```
import Tkinter as tk

class App:
    """
    """

    def __init__(self, parent):
        """Constructor"""
        frame = tk.Frame(parent)
        frame.pack()

        btn22 = tk.Button(frame, text="22", command=lambda: self.printNum(22))
        btn22.pack(side=tk.LEFT)
        btn44 = tk.Button(frame, text="44", command=lambda: self.printNum(44))
        btn44.pack(side=tk.LEFT)

        quitBtn = tk.Button(frame, text="QUIT", fg="red", command=frame.quit)
        quitBtn.pack(side=tk.LEFT)

    def printNum(self, num):
        """
        """
        print("You pressed the %s button" % num)

if __name__ == "__main__":
    root = tk.Tk()
    app = App(root)
    root.mainloop()
```



Notice the btn22 and btn44 variables. This is where the action is. We create a

tk.Button instance here and bind to our printNum method in one fell swoop. The lambda is assigned to the button's command parameter. What this means is that we're creating a one-off function for the command, much like in the quit button where we call the frame's quit method. The difference here is that this particular lambda is a method that calls another method and passes the latter an integer. In the printNum method, we print to stdout which button was pressed by using the information that was passed to it from the lambda function. Did you follow all that? If so, we can continue; if not, re-read this paragraph as many times as necessary until the information sinks in or you go crazy, whichever comes first.

Wrapping Up

The lambda statement is used in all kinds of other projects as well. If you Google a Python project name and lambda, you can find lots of live code out there. For example, if you search for “django lambda”, you'll find out that django has a **modelformset** factory that utilizes lambdas. The Elixir plugin for SQLAlchemy also uses lambdas. Keep your eyes open and you'll be surprised how many times you'll stumble across this handy little function maker.