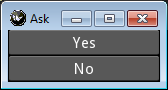
Computer Programming Using Kivy 1.7.2 - GUI 1 - Windows and Buttons

GOAL: Make a window with a Box layout containing two buttons and with a custom title:



Kivy is a framework that allows you to program Apps for a desktop computer (Windows or Apple) or smart mobile device (Android or iOS). Because this framework is modern & flexible, it is a good way to see how to program a GUI (graphical user interface), so you can begin to program windows & buttons. When you are programming GUI, you will notice that there is certain repetitive code that is in all of your applications—the “boilerplate” code below is to load Kivy and to create windows. Boilerplate code means code that is ok to copy & paste because it is always needed, is common knowledge, & is not owned by anyone.

* Click Start, Computer, StudentSharedFiles, Computer Programming, Unit 2, then open **GUI 1 (this document)**
* Open Ninja-IDE
* File, **New File**
* Copy the following code (**all text in bold** monospaced font below) and paste it into the file:

**from kivy.uix.boxlayout import BoxLayout**

**from kivy.app import App**

**from kivy.lang import Builder**

**Builder.load\_string('''**

**<Form1>:**

**cols: 1**

**BoxLayout:**

**orientation: 'vertical'**

**Button:**

**text: 'OK'**

**''')**

**class Form1(BoxLayout):**

**pass**

**class MyApp(App):**

**def build(self):**

**return Form1()**

**if \_\_name\_\_ == '\_\_main\_\_':**

**MyApp().run()**

* File, Save As,Computer, H:, **kivy-boxlayout.py**

-Now forever, you can use that file and copy it as much as you want as a starting point to make kivy programs with a box layout. It is a blank form like a template where you can later type whatever you want. Now that you have a file that is only boilerplate, save again to start making your own unique program:

* File, Save As,Computer, H:, **gui1.py**

How to use Builder.load\_string to create a form:

You use kivy’s Builder to load a form. You can put the form inside a string then use Builder.load\_string. The reason there are three single quotes around the form is that Python can use a three single quotes to create a string that is more than one line. In order to change how the form looks, you only need to change the form, which is the text inside of these quotes which the string the Builder loads.

* Try changing the form to have a Yes and No button instead of one OK button. All you have to do is retype or **copy and paste the two lines that define the button** (“Button” line and the “text” line below it) so that those lines appear twice, then for the first one, **change OK to Yes**, then for the second one **change OK to No**
* Next, change the App name. **Replace** MyApp with AskApp **both** times it is used in the code.
* Project, Run File (IF IT HAS ERRORS THAT YOU FIXED, it may be running old file—close NINJA & reopen)

**NOTE: Make sure you don’t make any file named kivy, otherwise import will say something “not found in kivy”**