TKINTER: A QUICK INTRODUCTION

Topics Covered: Starting your window and defining window geometry, how to use labels, buttons, and entry widgets
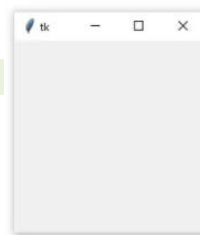
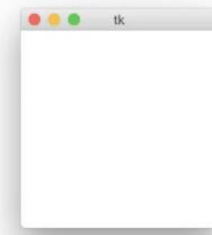Imports:

```python
import tkinter as tk
```

Opening a window:

```python
#define the window
root = tk.Tk()
```

Once executed, the window will look like:
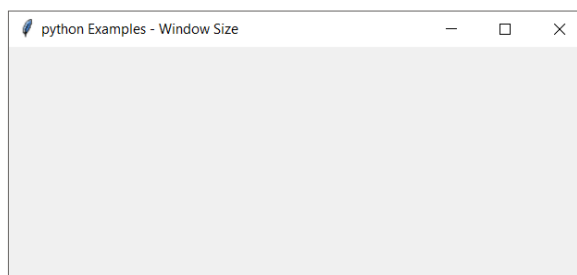

(a) Windows   (b) macOS   (c) Ubuntu

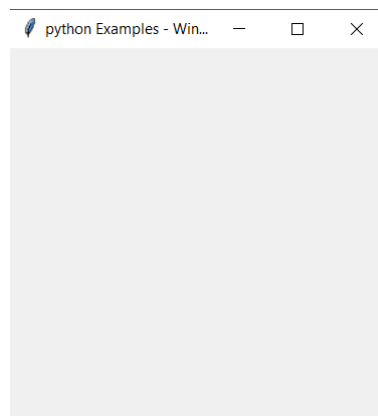Setting root geometry (sets a fixed size of your window)

```python
#window dimensions
root.geometry('1080x600')
```

Examples:

root.geometry('500x200'):

root.geometry('300x300'):

Adding features to your window

Widget Class	Description
Label	Widget used to display text on screen
Entry	Widget used to get a one-line of text input from the user
Button	Widget that acts as a button that can have text and perform an action when clicked

1. Labels

```
tk.Label(root, text = 'Hello!').grid(row=0)
```

When executed, the window will look like this:
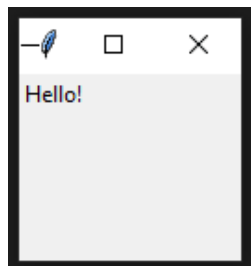
Note: grid is used to set the placement of buttons, labels, and entries in the window. Equivalent of 'pack'

2. Entry

```
tk.Label(root, text="Please Enter your Name:").grid(row=1)
e1value = tk.StringVar()
e1 = tk.Entry(root, textvariable=e1value)
e1.grid(row=1, column=1)
```

e1value = tk.StringVar()

➔ Tkinter variable for storing string entries. To store an integer entry, use IntVar()

e1 = tk.Entry(root, textvariable=e1value)

➔ To allow the user to type their input, Entry widget is used, textvariable attribute is used to get the data from the variable where it is stored.

To get the input entered and use in the program, .get() is used:

name = e1value.get()

3. Buttons

```python
#function to get the value entered and print it
def print_name():
    name = e1value.get()
    print(name)

#submit button
submit = tk.Button(root, text='Submit', fg='black', bg='orange', command=print_name)
submit.grid(row=2, column=1)
```

```python
submit = tk.Button(root, text='Submit', fg='black', bg='orange', command=print_name)
```

tk.Button is used to create a button widget, fg and bg stand for foreground and background colors, the command attribute is used to signify what action will be done when the button is clicked. In this case, the print_name() function will be called and it will simply print the name entered into our consol.
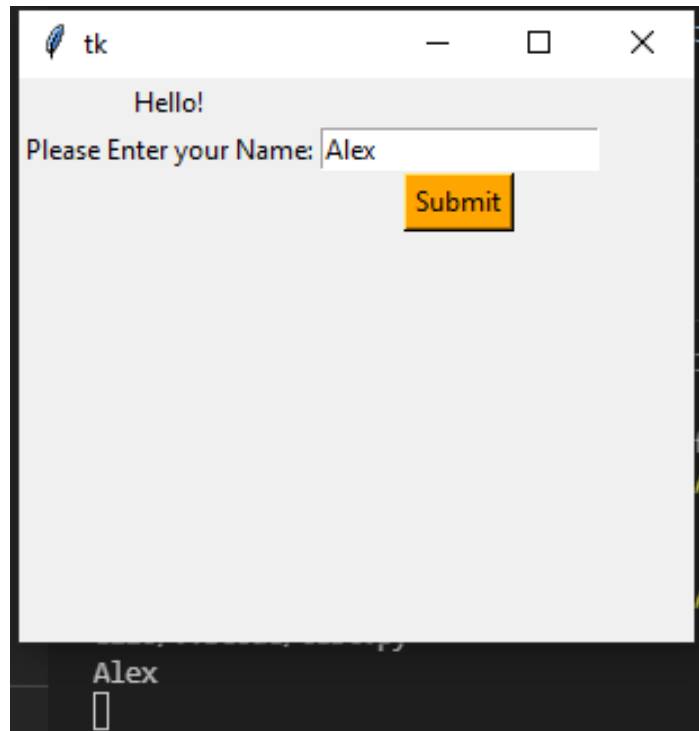
Note: if you want to call a function that has parameters, you use:

```python
submit = tk.Button(root, text='Submit', fg='black', bg='orange', command=lambda:print_name(parameter)
```

Our final window will look like:
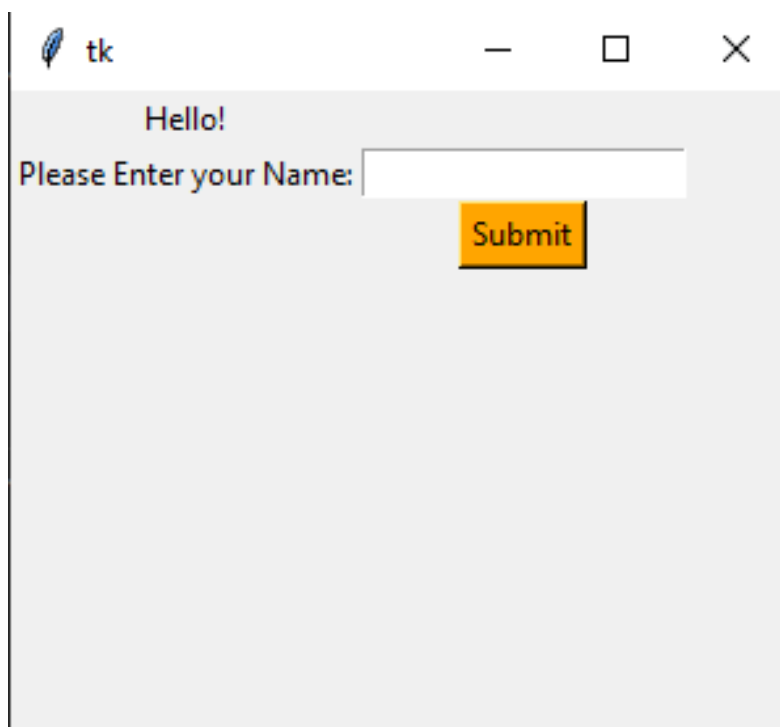
Once a user has entered their name, the button will execute the command and the name will be printed into our consol.

To finally execute your window:

```
root.mainloop()
```

must be added at the end of your code.