

CIT 590 Assignment 6: Voting Booth

Fall 2016, David Matuszek

Purposes of this assignment

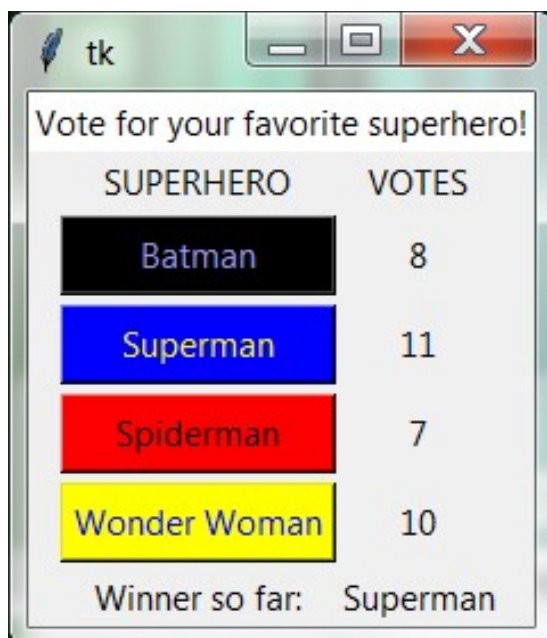
- To give you some basic experience with GUI development.
- Incidentally, to give you practice with named parameters.

General idea of the assignment

Using Tkinter in Python, create a GUI with some buttons, a display showing how many times each button was clicked, and a display of which button has been clicked the most.

Details

Here's a little GUI that I wrote for this assignment:



Requirements

There should be a **Label** at the top, showing who/what you are voting for.

There should be a **Label** for each of the two columns (in this example, "SUPERHERO" and "VOTES").

There should be a column of at least three **Buttons**, and an adjoining column of counts (also **Labels**) showing how many times the corresponding button has been clicked.

At the bottom of the window, there should be another **Label** showing which candidate has received the most votes so far. This should be updated whenever a "vote button" is clicked. If two more candidates are tied for first place, just report **"Tied"**.

Approach

I used "superheroes" as a theme because I liked the idea of having colored buttons. Batman should obviously be black, Superman should be blue, and Spidey should be red (it isn't as clear what color to use for Wonder Woman). You are welcome to choose another theme--favorite ice cream, presidential race, whatever.

Obviously this is a terrible voting simulator; you can press as many buttons as many times as you like. So what? It's making the GUI that's important.

This is supposed to be an *easy* assignment. That only works if you follow my strong advice to do only a little bit at a time, and test after every little change and addition. Otherwise you will very quickly end up with an empty or blank GUI and no idea what went wrong.

Perhaps the trickiest part of the assignment is determining which candidate has the most votes, and that's a straight programming problem, not a GUI problem at all.

Try to make a neat GUI, but don't obsess over the details. Make it work before you try to make it pretty.

Programming notes

I like Macs much better than Windows. That said, for whatever reason, buttons on a Mac can have colored text (foreground), but can't have colored background. I did most of my programming on a Mac, then moved to Windows for the finishing touches. You do **not** have to have colored buttons.

I used two **Frames**, one for the top message and a second for everything else. I used a grid for the second frame.

The easiest way to put up vote counts is with **Labels**. The program can change the text on a **Label** by saying `my_label["text"] = "some string"`.

Buttons are normally just wide enough to hold their text. You can make them wider to fill all the horizontal space, but how you do this depends on how they are arranged. If they are **packed**, you can add `fill=X` to the **Button** constructor. If they are in a **grid**, you need to say `sticky=W+E` in the call to **grid**.

No unit tests are needed, because everything is visible.

Due date

Turn in your **voting-booth.py** file by **11:59pm Tuesday, October 18**. Note that this is *after* the midterm.

Only files submitted to [Canvas](#) will be accepted. I do not accept assignments submitted by email.