

Python Class 19

GUI

Common Bindings

- '<Button-1>'
- '<Button-2>'
- '<Button-3>'
- '<Motion>'
- '<Motion-B1>'
- '<KeyPress-a>'
- '<KeyPress-d>'
- '<Enter>'
- '<Leave>'
- '<Key-a>'
- '<Key-w>'
- '<Key-d>'
- '<KeyRelease-a>'

These SHOULD be different but they work the same way – we can fix this, but it is complicated

Binding

- Binding connects different buttons or keys to different commands.

```
#item.bind(event, command)
def activate(event):
    item.configure(state = tk.NORMAL)
item.bind('<Button-1>', activate)
#when the left mouse is pressed, activate will be called
```

Experiment

- Let's play with some of the information we learned today and last week.



Pictures!

- We can add images using
`im = tk.PhotoImage(file =
“”)`
- `label = tk.Label(root,image
= im)`
- `label.place(x = 100,y =
100, height = 100, width =
100)`

Listbox

- `lb = tk.Listbox(parent,
option....)`
- `listvariable (StringVar,
'a b c')`

Checkbutton

- `check =`
`tk.Checkbutton(parent,`
`option....)`
- `command`
- `indicatoron (0,1)`
- `variable (IntVar \rightarrow 0,1)`

Control Variables

- tk.DoubleVar()
- tk.IntVar()
- tk.StringVar()
- Float
- Integer
- String
- These get linked and will change automatically
- Button, Entry, and Label can have a textvariable

Control Variables, 2

- `v = StringVar()`
- `v.set("Hello")`
- `a = v.get()`
- Creates a string variable
- Sets the value to Hello
- Now, `a` has the value Hello

Let's go back to our recipe code.

- Let's make a program that allows us to save a recipe, enter ingredients, and add instructions