

Python Class 20

GUI

Review

```
1 list = ["home", "time", "improvement", "dark", "far"]  
2  
3        x        list:  
4     print(x)
```

Review 2

```
7 for x in range(1, 50):  
8     if x/2 - int(x/2) == 0:  
9         print(x)  
10
```

Review 3

```
12 class Movie:
13     def __init__(self, ti, di, ca, ge, rt):
14         self.title = ti #映画名
15         self.director = di #ディレクター
16         self.cast = ca #キャスト
17         self.genre = ge #ジャンル
18         self.runtime = rt #映画の長さ
19
20
21 #make two movies
22
```

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