Announcements
- HW7 grades emailed yesterday
- HW10 is posted, due Friday
- Last day of class (in 2 weeks) is a review session
- Final Wednesday - (9am?)
Designing Python GUIs: MVC

The Model-View-Control Pattern: 1979

- The data and business rules part of the application
- what the user sees
- how the user face works

Diagram: View -> Controller -> Model
MVC in Tkinter

The model is often a completely separate class which stores underlying information somehow.

The view + control are combined: view is widgets + display, control is callback (so widgets call functions to model).
Example: Stop watch

2 classes in this:

1. The Stopwatch class will store:
   - self.running: True/False
   - self.start_time
   - self.elapsed_time

Functions:
- start()
- stop()
- reset()
- elapsed_time()
2. The User Interface class:

This will make the window and buttons.
- `__init__` will set up the window.
- Button widgets will be set up to call the functions from the stop watch class.

Main Script: Simply creates variables for 2 classes and starts the main loop.
See code
Homework

Similar setup: making a GUI addressbook. The controller (like Stopwatch) is already written. (You will Not change this class!)

You will write a main (plus a few classes) to give display-control.
Today: Work Day

Find a partner!

Get started on writing control / GUI.