Announcements

- HW - due Thursday

- Next HW — may work in pairs, but only with a new partner
Graphical User Interfaces
Python has several systems which can be used to build GUI's.

Examples:
- Tkinter - what cs1 graphics is based on
- wx
- PyQt
- PyGTK
To use Tkinter

1. Need to import Tkinter module
2. Create a top level window object to contain our interface
3. Build the component in the window
4. Connect the GUI components to the application code
5. Enter the GUI loop
Step 4

The key difference in this setup:

**Event driven:**

- Program puts info on screen
- Program waits
- User selects
- Program activates

**Flow driven:** (what we have seen so far)

- Program runs
- User enters info
- Program resumes
Compare:

Flow driven: the program is in control, and the user responds.

Event driven: the user is in control, and the program responds.

(Ch. 15 writes its own event-driven class, but we'll use Tkinter instead to get started.)
Examples:
Available widgets:
- Label
- Button
- Entry
- ListBox
- Message
- Text
- Radio Button
- Scrollbar
- Frame