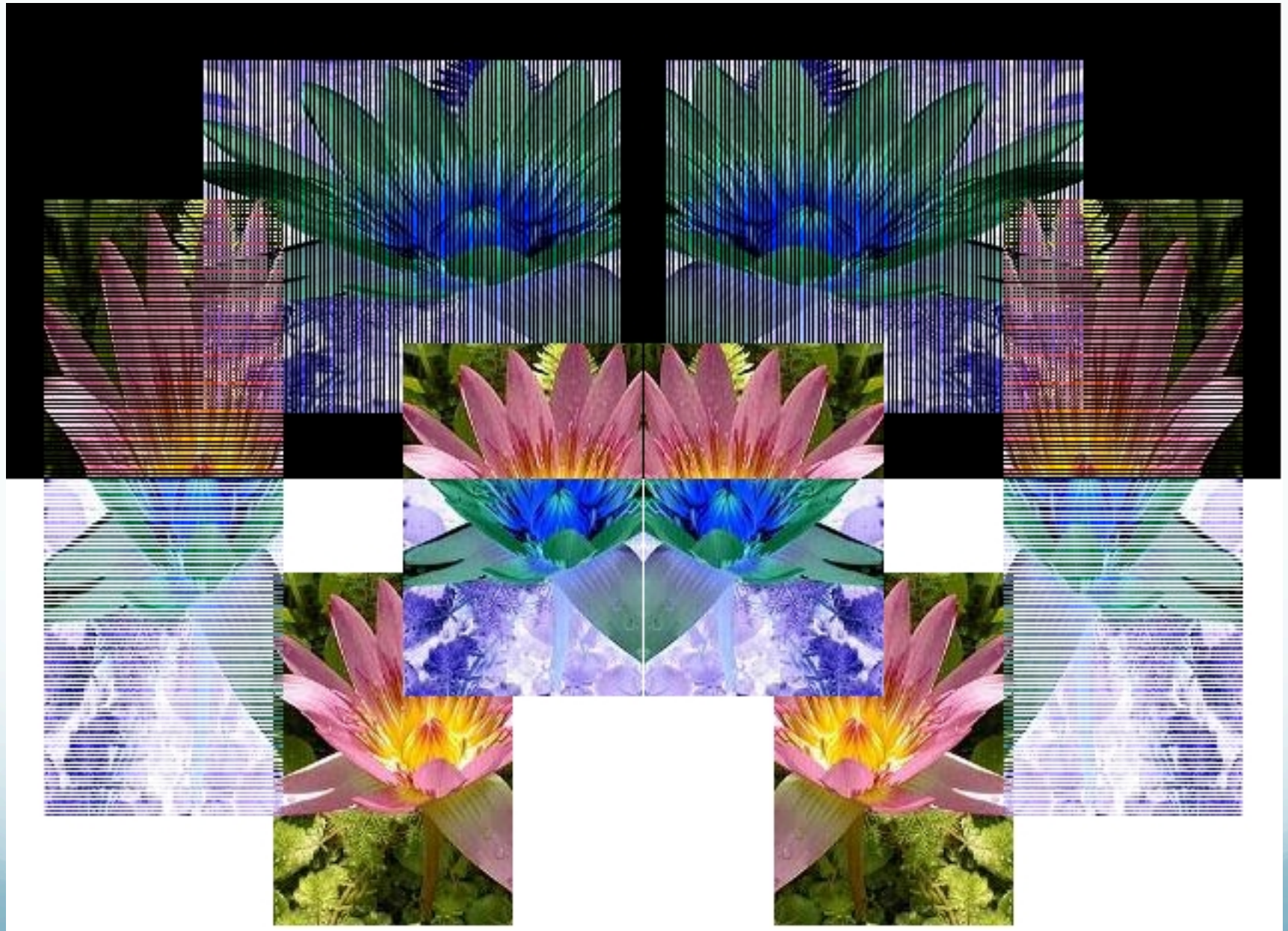
Collage Assignments

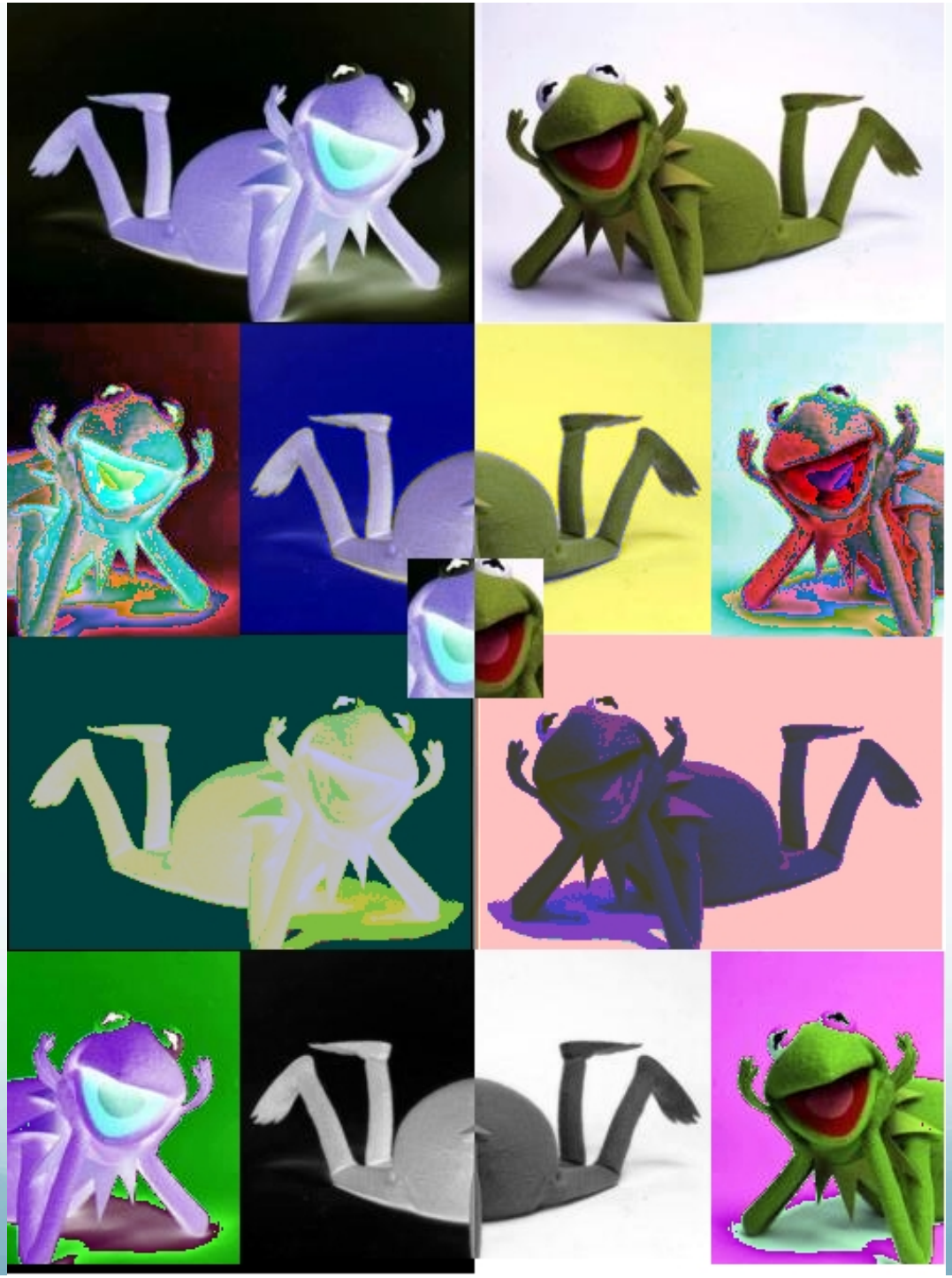
- So you've used Daniel Zingaro's Stereo Sound Processing or Kevin Wayne's Guitar Heroine.
- Or maybe you've used Joshua Guerin and Debby Keen's text images, or David Malan's BMP Puzzles.
- "What comes next?" *Collages!*
  - Put the pieces together.
  - Chance to talk about longer code, and the purpose of modularity.
  - Chance to do something creative.
  - Even the average students do something cool.

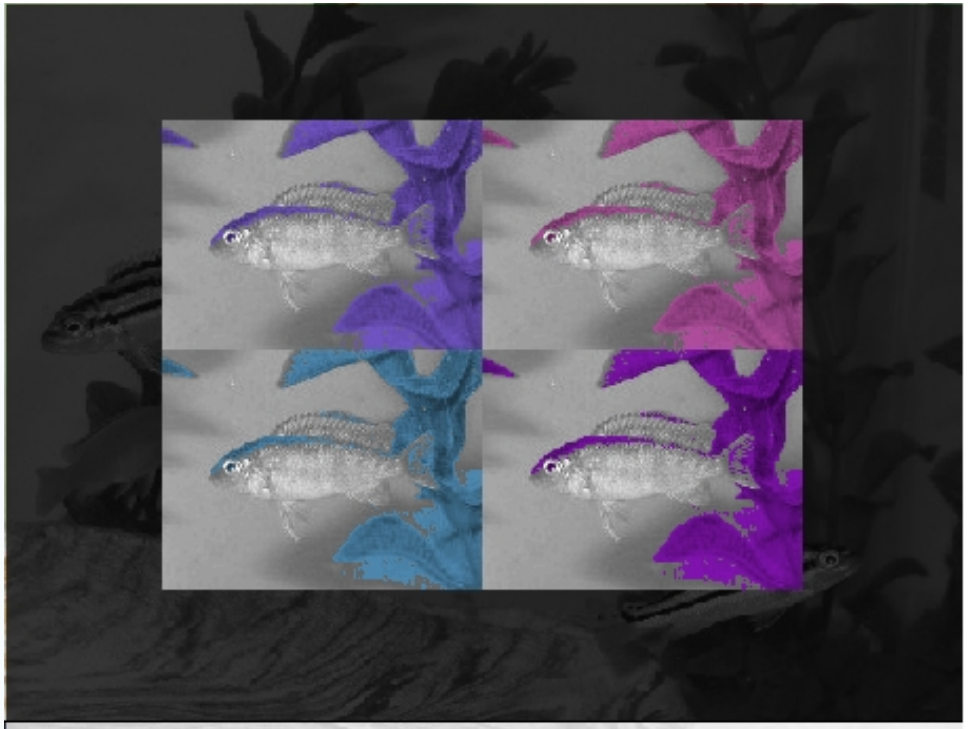
Call it "Nifty Re-mix!"

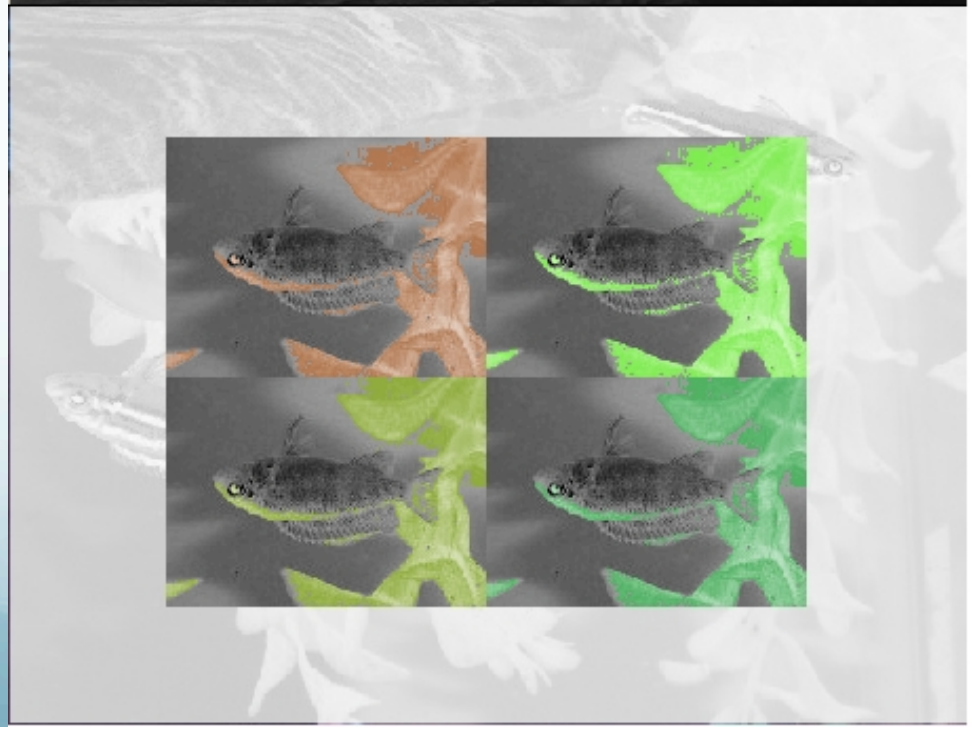
Typical Collage Assignment

- Write a function/class/program, to create a collage of the same image at least four times fit onto any background image you choose. (You are welcome to add additional images, too.) One of those four copies must be the original picture. The other three should be modified forms. You can do any of
  - scaling, cropping, or rotating the image,
  - shifting or altering colors on the image,
  - and making it darker or lighter.
- After composing all four pictures (or more), you must *mirror* the *ENTIRE* canvas, in some direction: Horizontally, vertically, diagonally.



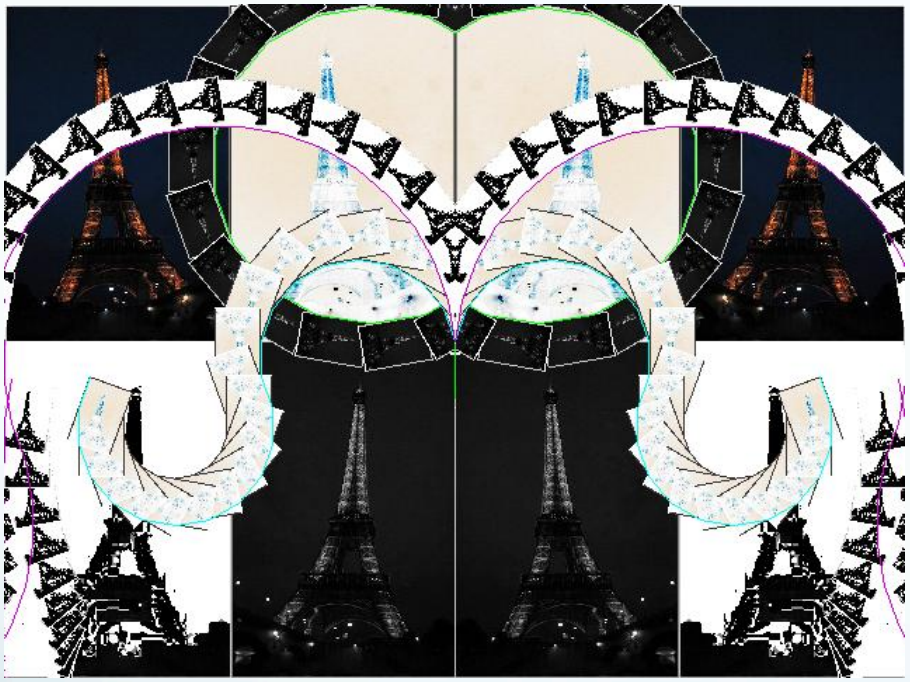






Study-Abroad CS

In CS2: With Turtles



How we grade

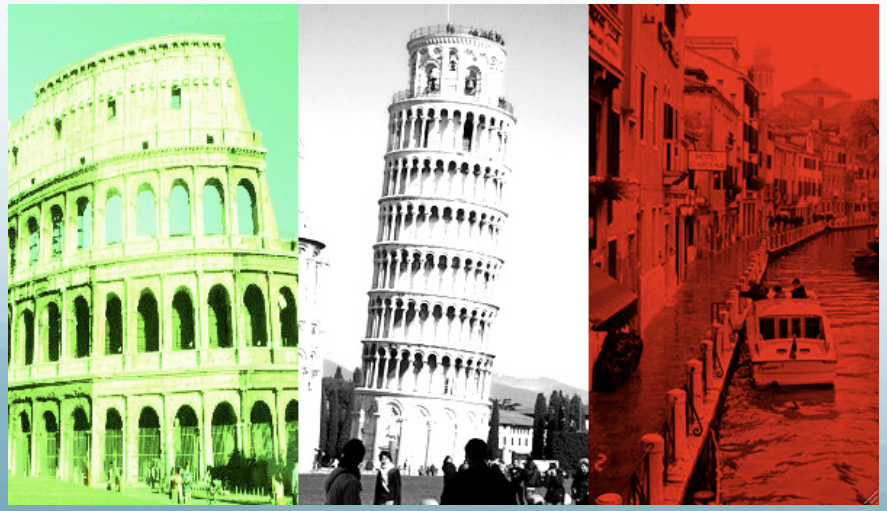
- Typically, on meeting the requirements in the artifact:
  - Are all the pieces there?
  - Did you do everything we asked?
- We have a non-majors audience.
  - We get lots of 100+ line programs – in week 3!
- Could grade on the code instead:
  - Was appropriate modularity used?

Plagiarism

- Within a semester, plagiarism is unusual.
  - Even with 300 students, we can spot two identical collages.
- Across semesters, plagiarism happens.
- Answer: Computationally-equivalent collage assignments, with opportunities for open-ended creativity.

Flags

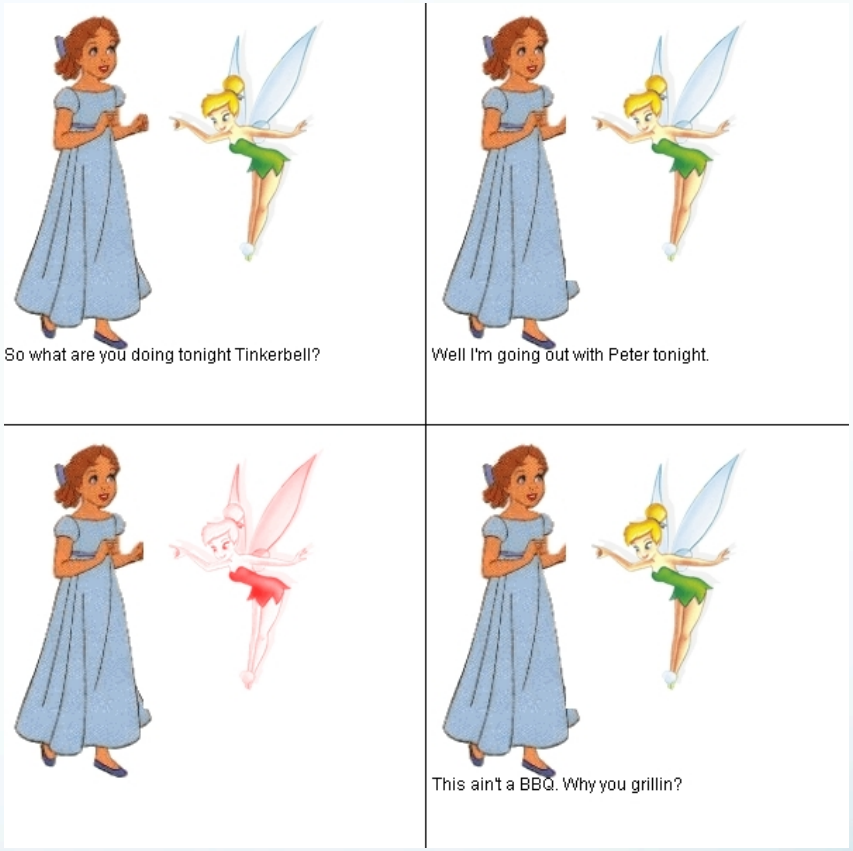
Your assignment is to write a function that will create a collage of pictures. Your collage will be made by copying at least 3 pictures onto a blank canvas. You must use at least 3 different pictures. When finished, your collage should look like the flag of a country.

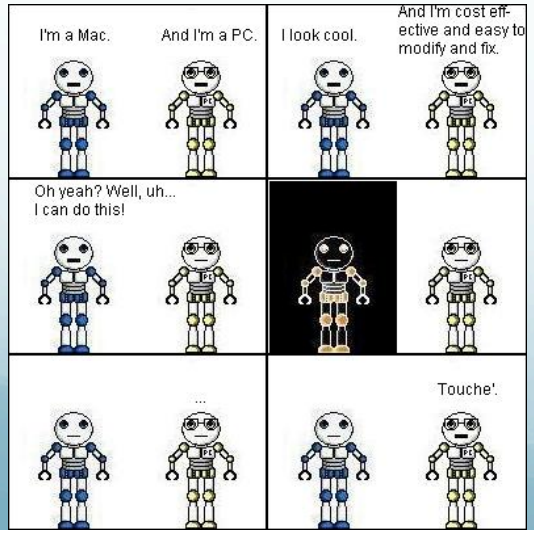


Comics

Place several characters (at least three) into a scene, and make at least two of the characters "say" something using the addText function.

Yes, you are ENCOURAGED to be humorous – but tasteful!. If it couldn't appear in the school newspaper, don't hand it in as homework!)





Comics

Andrew: dude! how tough r u?
Goku: u will see how tough I am!
Andrew: hmm... very shiny...
Goku: I'm Super Goku!!!
Andrew: I'm Super Andrew!
Goku: Wow... u r muscley...
Andrew: We r cool!
Goku: We r cool!
MATRIX
MATRIX

Sound Collages

Write a function to generate an *audio collage*. You must compose together at least *two* separate sounds, and your result must be at least *FIVE* seconds long. One of the sounds must appear at least *TWICE* where it is changed in some way.

You have a variety of ways that you can change sounds:

- Increasing, reducing, or normalizing volume.
- Reversing sounds.
- Splicing out parts of a sound.
- Change frequency of a sound
- Blending sounds (not discussed in lecture, but in book)
- Any other sound technique discussed in the book or in class