Lab 10 Feedback

- Hope you're proud of yourselves!
- Mostly minor issues
  - Not closing file objects
  - Comment on the Song constructor
    - What are the data types of each parameter
  - Writing PlayTime object to the file prints out too much
    - Just want minutes and seconds
  - __cmp__ method: should return 0 when they're equal
  - Give user feedback when something happened

Lab 10 Feedback

- Don't print inside of sort method
  - Unwanted side effects (seen today)
  - Print inside of driver program, after sort called
- Not writing songs in library
- Testing vs the UI
  - In testing the MusicCollection class, you created a MusicCollection object and called methods on it
  - The UI is similar
    - Create a MusicCollection object based on the library file to read
    - Call methods on the MusicCollection object based on what the user wants

Lab 11: Three Parts

- Linux practice:
  - Using the `wc` command
- MyTunes extensions
- Two-dimensional lists

`wc` Command

- `wc`: Word Count
  - Count up the lines of MyTunes code from Lab 10
  - Compare with code for this assignment
- Specific directions are in the lab

MyTunes, Extended

- Searching
  - Allows you to search for songs by title
  - Update MusicCollection class and UI appropriately

Summary of Modifications to Binary Search

- Check the *title* of the Song that is at the midpoint
- Get the songs before and after that song in the list for songs that have the same title and put in a list
- Represent (in method), and handle (in UI) when no song matches
- For "most intuitive" results:
  - Strip, lowercase the key
    - Changes algorithm again slightly

MyTunes, Extended

- Exception handling
  - Every place opening a file, add exception handling
    - Print out error message and return from method

```
try:
    <code that could throw an exception>
except [error-type]:
    <handle exception appropriately>
```

MyTunes Code

- You'll want to fix the major problems in your code first
- Or, use the code in the handouts/lab11 directory
  - music.py, mytunes.py

2D List Practice

- Creating, printing, processing 2D list

- ConnectFour
  - Opportunities for extra credit

Reminder

- Give me your final exam envelopes by Thursday so that I can stuff them