

CSSE 230

EditorTrees worktime

Midterm Feedback Responses

Course: Plus

- Quizzes ++++++
 - Assignments in general ++++++
 - Programming assignments ++++++
 - Lectures +++++
 - Everything working well; elements of the course reinforce each other +++
 - Explanations in class ++++
 - Written assignments ++++
 - Quiz review questions +
 - Completed quizzes online +
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- I find that the in class quizzes are very helpful, and act as an easy way to take notes in class without being too distracted from the lecture itself
 - I think the programming assignments have worked well. They allow me to practice in an engaging and meaningful way, and get me to think about the practical applications of what we are learning.
 - So far, the lectures have kept my attention throughout the period, the in-class quizzes have been useful for retaining information and being able to check with later, and the programming and written assignments have been helpful in solidifying what we learn in class.
 - Nearly everything seems to be working well for me. The projects seem to be a good difficulty, The quizzes make following along in class much easier, and the lectures are clear.

Midterm Feedback Responses

Course: Delta

- No recommendations ++++++ / The class is going well ++
 - Workload could be lowered ++
 - Slides could have more information from lecture +
 - Written assignments should be more tied to the material we are tested on +
 - Extra optional programming practice
 - [Conflicting feedback] More explanation of code implementation / More explanation of theoretical concepts
 - More time for work, asking questions
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- Give more opportunities for students to discover on their own how to structure efficient code/recursion.
 - Collect quizzes to keep people honest and disincentivize getting distracted
 - Written assignments have inconsistent difficulty / completion time, hard to know what to expect
 - Update the solution to in-class quizzes more frequently
 - Swap the order of Doublets and BST, so the assignment over holiday break is alone, rather than having to coordinate from hundreds of miles away.

Midterm Feedback Responses

Self: Plus

- Being present & paying attention in class ++++++
 - Asking questions, seeking help ++++++
 - Good study habits +++++
 - Good work ethic ++++
 - Start/finish assignments early +++
 - Review daily ++
 - Practice ++
 - Complete materials on time ++
 - Working/thinking independently +
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- I dont know when, and I dont know exactly how, but something clicked a while ago about recursion and it has been making so much more sense ever since
 - I have been preplanning all of my code and algorithms on paper to understand the problem before attempting to solve it. This deepens my understanding and leads to cleaner and more efficient, effective code.

Midterm Feedback Responses

Self: Delta

- Better time management ++++++
 - Review more frequently +++++
 - Better assess my learning +++
 - Seek help more often, ask questions ++
 - More practice ++
 - Better review +
 - Better study habits +
 - Read textbook +
 - Better note-taking +
 - Prioritize sleep +
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- I should probably reflect on code that I haven't completed on my own to ensure that I fully understand it.
 - I believe I am learning the material sufficiently but I must prioritize sleep moving forward to be more present and alert at 8AM
 - I should probably pursue further material like the textbook on things we learn in class.
 - Think about how to improve the efficiency of my code after finishing

Midterm Feedback Responses

Surprised

- More math than expected +++
 - Topics, assignments flow nicely and build on each other ++
 - Nothing—exactly what I expected ++
 - [Conflicting feedback] Higher workload than expected ++ / Not as hard as expected +
 - Difficulty/scope of programming projects +
 - Transferring algorithm knowledge to code is hard +
 - [Conflicting feedback] More interesting than expected / Less interesting than expected
 - [Conflicting feedback] More abstract thought than expected / Less abstract than expected
 - Teams work better than expected
 - Focus on efficiency
 - A lot of team assignments
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- This class has a close connection with Math. Love it.
 - I am surprised how much more emphasis is more on trying to figure out how efficient we can make algorithms rather than just making them without thinking about efficiency.
 - How all the assignments are interconnected and related to one another.
 - How much new material is simply a logical continuation of the old material, and how well it fits together.

sumOfHeights from HW5:

- Easy to find sum of heights in a tree if we don't care about efficiency.

```
return height() + left.sumHeights() + right.sumHeights()
```

- But look at the repeated work!
- Other options:
 - Add a field? But far better to hide within param/return.
 - Store heights in an array? But better to use less space.
 - Return multiple things? Very nice. This is a pattern that works for many problems.
- Let's look at efficiency of two solutions
 - The code is instrumented to count method calls.
- This style of efficiency is a big deal.
 - Could you write $O(n)$ `isHeightBalanced()` in the same way?
 - ... or `sumOfSizes()` or any function that needs to recurse on its subtree to get some partial info?

Upcoming topics

- Hash tables and priority queues