Amelia Miner cs510 – CR&R w/ prof. Casamento
Project Proposal

• *What codebase will you be working on? What is the original purpose of the codebase?*

I'm going to work on the last assignment I did for cs202 last year. It's an object oriented gradebook for the class itself, using the terminal for user interaction and a few layers of collection classes with a small hierarchy of grade classes at the bottom. A couple of data structures are included, a BST and linear linked list.

• *Who are the original authors of the codebase? (Make sure you have permission from **all** of them to share the code!)*

Just myself.

• *How will you submit your work at the end of the project? (You can use a website like GitLab or GitHub to host your project and send an invite to cas28@pdx.edu, or you can arrange to submit your work by email or some other method.)*

I'll have it hosted and shared on GitHub.

• *If you plan to work in a group, who else will be in your group? (Only one member from each group needs to submit a proposal. Note that groups may be **no larger than 3 people** unless you get special permission to have a larger group!)*

I'm working alone.

• *What are the major improvements that you plan to make to the code? (What bugs need to be fixed? What features need to be added? What clean-up work needs to be done?)*

I think it's bug free for now, but there are comments that should be reassessed, and there are no real docstrings. Documentation and reformatting are warranted.

I always envisioned it as having a book-shaped ASCII UI instead of being the typical interactive text menu type of program we write for this level of course – I think it would be cool to add that as a feature, maybe with an option to switch back and forth between views while the program is running. I already have what I hope is a cool realistic mock-up for this in my head. I could take commands as single key presses in the book view instead of using the same commands from the menu view.

I would like to set up the ability to save/load the state of the gradebook to/from a file, especially knowing now how much easier it might be with JSON, which I didn't understand as well when I wrote this program.

I also want to allow the user to test how a grade would affect their overall grade so far without entering then deleting an entire assignment.

I'm tempted to suggest that I add self balancing to the BST, or rewrite it as a RBT, but hesitant to commit – is this proposal a hard commitment to the features I list here?