

CMSC 420: Coding Project 2

AVL Trees

1 Due Date and Time

Due to Gradescope by Sunday 8 October at 11:59pm. You can submit as many times as you wish before that.

2 Get Your Hands Dirty!

This document is intentionally brief and much of what is written here will be more clear once you start looking at the provided files and submitting.

3 Assignment

We have provided the incomplete file `avl.py` which you will need to complete. Please look at this file as soon as possible.

4 What to Submit

You should only submit your completed `avl.py` code to Gradescope for grading. We suggest that you begin by uploading it as-is (it will run!), before you make any changes, just to see how the autograder works and what the tests look like. Please submit this file as soon as possible.

5 Testing

This is tested via the construction and processing of tracefiles just like the first project.

Each non-final line in a tracefile has one of the following forms:

- `insert, key, value`
- `bulkInsert, key1, value1, key2, value2, ...`

- `bulkDelete,key1,key2,...`
- `replace,key,value`

The final line is one of the following: `dump` or `search,x` (where `x` is a key).

This final line determines which of these operations is carried out.

You can see some examples by submitting the `avl.py` file as-is.

6 Local Testing

We have provided the testing file `test_avl.py` which you can use to test your code locally. Simply put the lines from a tracefile (either from the autograder or just make one up) into a file `whatever` and then run:

```
python3 test_avl.py -tf whatever
```