

COP 3503

Use any IDE.

Graders will compile using Java 8.

Goal: Learn More Algorithms to Solve Problems Efficiently

- Learn 3 Paradigms for Solving Problems

- Greedy

- Divide + Conquer

- Dynamic Programming

Continue to analyze the efficiency of algorithms, learning more mathematical tools.

Also learn a couple more data structs.

* Use Java (Week 1 Goal - learn how to use built in data structs)

Java API use

- ① Custom Sort
- ② ArrayDeque
- ③ PriorityQueue
- ④ TreeSet
- ⑤ HashSet
- ⑥ TreeMap
- ⑦ ~~Tree~~ HashMap

Java has Interfaces

If you implement the Comparable interface for class, then Java will sort a collection of item from that class for you.

① Class Item implements Comparable<Item> {

↓ this
// mine.compareTo(↓ otheryou)

② public int compareTo (Item other) {

// return neg. int if ~~this < other~~
// return 0 if this == other
// return + int if this > other

}

