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Assignment 3 Analysis

1. This assignment was only difficult when it called for generics. I was unfamiliar with them therefore it would have been nice to have a partner to help me figure this out. I did however figure this out and finish the assignment. I feel that this assignment was ok to be done alone, this homework was a good refresher and a great learning experience for me personally. Sometimes I do believe that having a partner distracts you, or takes away from you own thinking or learning process. With that being said I am excited to see how the future assignments are with a partner.
2. Comparator is used when there is no natural defining order. This is used when you want to compare objects by means other than intrinsic values. For example when we used compare by author, or compare by title these are objects being compared by different attributes. Comparable is generally also used when dealing with one class, and the items being compared are all in that class being compared the same way. To explain comparable you would use the compareTo method like something.compareTo(else). The comparator method would be used to compare things that compareTo cant necessarily compare, such as compare by author. This is a method call (Collections.sort(List,Comparator))

I do not believe it would have been possible in the generic class to implement the comparable interface due to the fact that author, and title, cannot be compared by any natural ordering. Also they are in different classes which makes it more difficult to use comparable without any method to help you define some ordering in which you could compare.

3. I believe I spend an adequate amount of time on this assignment. I spend a lot of my time reading the assignment and making sure I knew exactly what needed to be done. I feel I could have improved a bit after once looking over the code to determine how the classes interact with each other. I initially just started to fill in methods without gaining an understanding of how the class interaction worked. I will work on this for the next assignment. However, the coding process, allowing for enough time to test, and writing up this analysis document was just fine.
4. Generic programming is very important because you can create a list of whatever you want. It doesn't need to be a list of integers or strings it can be a list of shapes or countries. These can be instantiated whenever a specific type of data needs to be defined. "Generic programming: algorithms are written in terms of types to-be-specified-later." Another reason why generics are important are because they allow for type-checking at compile time rather than run time.
5. Approximately 10-17 hours