[**Chapter 3 Assignment and Lab**](https://blackboard.nwtc.edu/webapps/assignment/uploadAssignment?content_id=_11200709_1&course_id=_161383_1&group_id=&mode=view)

* Pair up in groups (if you wish), complete the following in a Java IDE
* Create a Inventory Helper class that sorts inventory items by weight using a helper method (intended to be displayed to the user). Use a generic item class when implementing your Sorting class and method. Account for at least three different child classes of items (Tool, Currency, Weapon, ect...). Run your Sorting class for all three types of objects and demonstrate that it works in your main method. You will want to create and implement a list to hold your item objects to be sorted and retrieve later. (Perhaps you want to implement a thief who steals a random item!) (5 Points)
* Provide three examples each of Unbounded Wildcards, Upper-Bounded Wildcards, and Lower-bounded wildcards. Please feel free to re-use the inventory example. You should have nine examples total. You do not need to spend a large amount of time developing examples and different surrounding classes, this part of the assignment is testing if you understand the differences between each of the three wildcard types and can use each proficiently. (10 Points)
* Demonstrate the use of a set and a map when sorting objects. Include your notes in the comments. These can be simple examples. (5 Points)
* Implement a Comparator and Comparable call. Explain the differences in the comments. These can be simple examples. (5 Points)
* If you wish to do so to improve your understanding of this chapter and prep for the OCA exam, the Chapter Review questions are available in the back of the textbook. This is not graded and is an optional activity.
* **Additional Notes:**All programming examples should have JavaDoc comments generated for them. Please generate headers for each major object created (Class, Interface, Enum, Method, Function, ect...)   
  Please add all documents to a .zip archive and submit them. The naming standard for your Zip archive should be: [Last Name] - [First Name] - Java 4 - Chapter [Chapter Number].zip
* e.g. Hayden - Josh - Java 4 - Chapter 3.zip
* Please include a note if you've worked on this assignment with other individuals.
* If you wish, you may upload this to a Git repo and send a link to your Instructor