

## Collection Choice

I wrestled a bit while choosing the Collection types I used. I ultimately used an ArrayList Collection to contain the newly made Ticket objects, and a TreeMap to contain all Ticket objects. I began with an ArrayList, mainly because I'm most familiar with them, but also I did not really need to do any heavy sorting or quick access/retrieval. As I worked through my solution, I looked through my Collection notes. I knew I did not need a Set because I was not concerned with elements being duplicates. I did however come to the decision to use a Map. The Map is used to collect all old tickets from a file, then after new tickets are added to the Map, put the entire Collection back in the file. I interpreted this as working with a database where I will have a unique key for each Ticket object, which is not the same as the ID contained in the Ticket object. I reasoned that I did not need a Vehicle object to have an ID because a vehicle doesn't care what their ID is, thus a Ticket object has an ID. That ID is mainly used for the purposes of the assignment and simulation, but does keep track of the order in which the ticket was issued for that day (or session). That ID is generated by the Check In Machine. If there is another Machine, ID's could duplicate and would no longer be unique. Thus, I used a Map to handle the unique keys and a Ticket object for the values. I used a TreeMap instead of a HashMap so the elements will be sorted in order.