

## Playlist Labs

These labs assume you have the **Track**, **TrackService** and **TrackDAO** classes in your project. If you do not, beckon your instructor.

1. Make the **Track** class sortable by 'natural order'. You can decide what that order should be. Write code to create and sort a list of 5 Tracks.
2. Sort your list using some order other than the natural order. Use Lambda expressions.
3. Add a method called **findBy** to the application that returns a List of tracks based on search criteria that get passed in as an argument. Use the appropriate interface to specify the filter criteria. Test your method using lambda expressions.

Think of where the best place might be to put such a method.

4. Write a method to return only the artists for tracks with durations greater than 05:00. First write it using a for loop, then write it using Streams.
5. Partition the tracks into those that have a duration greater than 05:00 and those that do not.
6. Extra Credit: Partition the tracks as above, but with only the names of the artists in the result. You may have to do some api investigation for this one. In particular, think of downstream Collectors.
7. Extra Credit:
  1. Download a plain text book from the Gutenberg project <http://www.gutenberg.org/>. Or just use some text file on your machine.
  2. Write a program that computes the "concordance" for the book
  3. A concordance is a word frequency table, indicating how many times each word is used in the book.
  4. Use Streams in your solution.