

17.04 Assignment Instructions

Instructions: Using a list of movies you own or wish to see, sort them based on title, year created, or movie studio. Use the merge sort algorithm to reorder the collection as requested in ascending order.

1. Create a new project called **17.04 Assignment** in your Module 17 assignments folder.
2. Copy your **Movie.java** and tester file from the previous sorting project as a starting point. Rename the tester to `v4`. Delete the existing sort methods.
3. Declare an array of at least 10 Movie objects. For each, you will need the movie title, year, and studio. Of course, be sure to use school-appropriate movie titles.
For example: Meet the Robinsons, 2007, Disney
4. Design a static method that traverses through the array and prints each element.
5. Create the following static methods in the tester class. Utilize the merge sort algorithm. Each sort method will take three arguments: the array, an int low, and an int high. Be sure to create the corresponding merge method for each sort method. For this project, design all the sorts to be ascending order.
 - a. a method that sorts the array by the movie `title`
 - b. a method that sorts the array by `year` released
 - c. a method that sorts the array by the name of the `studio` that produces it
6. Test your sorting methods by calling each and displaying the results. Start by showing the array without sorting. Then demonstrate sorting in ascending order by title, year, and studio. Be sure to clearly label your output so someone looking at it knows which sort was applied each time.