Lab 10

- Implement the quick-sort algorithm as explained in the class.
    - **Bonus 2 marks:** if you implemented the LinkedQueue as explained in week 4
    - Alternatively you can use the LinkedList class available in java.util like we did in the live session this week
- Create a "Point" class that has two fields to hold x and y coordinates of a point
- Create a PointComparator class that defines a lexicographic order between the points (Hint: review week 7's content)
- Create a class for the main method that contain the following steps
    - Create a list of points with the coordinates (5,6), (7,10), (50,4), (7,3) in the given order
    - Print the points in the list, they should be displayed in the same order shown above.
    - Send the list of points and an object of the PointComparator class to the quick-sort function that you created
    - Print the list again after sorting, the points should be shown in the proper order, shown below:
        - (5,6), (7,3), (7,10), (50,4)

- Keep an eye on the description of the assignment as we might updated with answers to FAQ.

Submission Instructions

- Compress the entire NetBeans project and submit it to the assignment on OWL.
    - or submit your Java files if you're using another IDE
- Late submissions will be accepted for up to 3 days late with 10% late penalty for each day.
- You are expected to work on this assignment as an individual. Any violation to academic integrity will result in a zero mark.
    - I understand that some students find a sort of unhealthy fulfillment in cheating the system, but you'd find much better fulfillment if instead you put your energy into building real competence that will help you get a good job with high payment.

How is the lab conducted?

- The lab assignment will be posted on Friday and will be due on the next Friday (24hrs after the last lab)
- If you have any question
    - Imagine you'd win 1000$ if you figured it out on your own and try it first (you'd actually win much more since it's a skill that you'd need throughout your career)
    - If you couldn't figure it out and you're ready to lose the 1000$
        - Join the Zoom meeting of your lab (only the one you registered for)

        - Raise your hand and wait for the TA to take your question
- It’s better for you to work on it and submit it during your allocated lab time (or 24hrs after), because you have other things to do, and last-minute questions are not likely to be addressed