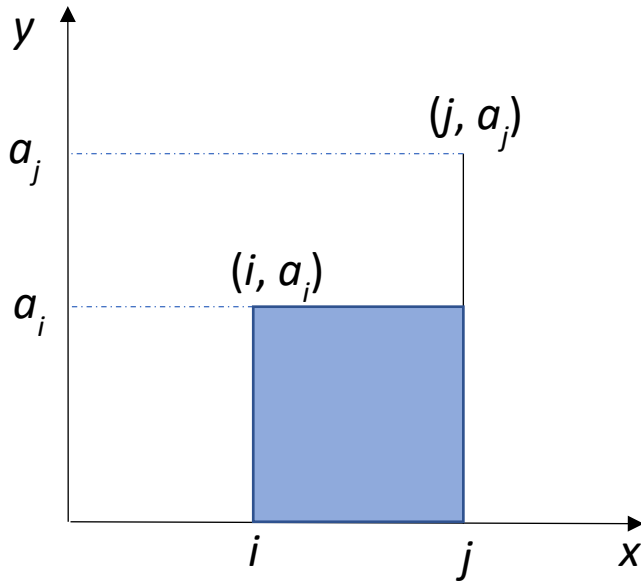


Programming Assignment3

Due Feb. 9, Friday @10 pm

Design a Java program that reads from a file "data.txt", which includes n non-negative integers a_1, a_2, \dots, a_n , where each represents a point at coordinate (i, a_i) . n vertical lines are drawn such that the two endpoints of line i is at (i, a_i) and $(i, 0)$. Find two lines, which together with x-axis forms a container, such that the container contains the most water. For example, the container formed by line i and line j , is the rectangle area in blue color.



1. Construct your text file "data.txt", which includes integer numbers.
2. You need design a java class named *Container*
3. In this class, you need implement a static method **MaxContainer**. It takes an array of integers as parameter. It returns the maximum area of containers formed by two lines defined above.
4. Your need implement a **main** method in this class

```
public class Container {  
  
    }  
  
    3. In this class, you need implement a static method MaxContainer. It takes an array of  
    integers as parameter. It returns the maximum area of containers formed by two lines  
    defined above.  
    4. Your need implement a main method in this class  
  
    public static void main(String[] args) {  
  
        // read integers from "data.txt".  
        // call the method MaxContainer.  
        // print out the maximum area.  
  
    }
```

5. Design helper functions as you need.

6. Provide comments to your file and each method.
7. Test your code and include your testing results in your hard copy.
8. Include the cover sheet in your hard copy.
9. Two copies are required for submission: electronic copy to ADA and hard copy.