CS206 Data Structure
Homework 1

(Due: March 23rd, Thursday, 23:59)

Implement the **DoubleArraySeq** class according to the specification given **in Figure 3.10** in the textbook. Submit the implementation of the DoubleArraySeq class through Elice system.

In addition, you should implement four more methods. Please fill out the all methods in **DoubleArraySeq.java** file.

public static DoubleArraySeq reverse(DoubleArraySeq seq)

Return the new DoubleArraySeq object in which the order of elements in the seq is reverse

Example
[1,2,3,4,5,6] -> [6,5,4,3,2,1]

public DoubleArraySeq insertSeqAt (DoubleArraySeq seq, int index)

Insert the DoubleAraySeq object seq at the index into the current sequence. Do not change the current sequence and return the new DoubleArraySeq object, which contains result data.

Precondition
The sequence seq is not empty.

Throws
When the index is inadequate (i.e., the index is −1, or larger number than the size of sequence), throw IllegalArgumentException.

Example:
current sequence: [1,2,3,4,5]

- seq: [8,9,10]
- index: 3; (it is not array index!)
- Result: [1, 2, 8, 9, 10, 3, 4, 5]

public double getMax()

Find the item of maximum value in the DoubleArraySeq object.

Precondition:
isCurrent() returns true

Returns:
The value of maximum in the DoubleArraySeq object.

Throws:
If there is no element in the sequence, throw IllegalStateException.

Example:
[2, 3, 6, 7, 4, 3] –〉 return 7

public double getMin()

Find the item of minimum value in the DoubleArraySeq object.

Precondition:
isCurrent() returns true.

Returns:
The value of minimum in the DoubleArraySeq object.

Throws:
If there is no element in the sequence, throw IllegalStateException.

Example:
[2, 3, 6, 7, 4, 3] –〉 return 2

NOTE:

- When your code contains some errors, 'run' would not correctly work in Elice system. Please clean your code even though some part is not yet implemented.
- You can check your score for each your method. For some method, there would be several test. If your method failed to some test, please check all requirements to should be implemented in your method.
- You should not ignore specification of 'Throws' in the textbook. Make sure that your code throws right exception at right condition.

If you have any questions about the homework and Java, please contact TAs.