

Priority Queues

Lab Description : Read a list of Strings. Store the Strings in the PriorityQueue and display the list in priority queue order, display the min value, and display the queue in natural order.

Sample Data :

```
one two three four five six seven
1 2 3 4 5 one two three four five
a p h j e f m c i d k l g n o b
```

Files Needed ::

```
PQTest.java
PQTestRunner.java
```

Sample Output :

```
toString() - [five, four, seven, two, one, three, six]
getMin() - five
getNaturalOrder() - five four one seven six three two
```

```
toString() - [1, 2, 3, 4, 5, one, two, three, four, five]
getMin() - 1
getNaturalOrder() - 1 2 3 4 5 five four one three two
```

```
toString() - [a, b, f, c, d, g, m, e, i, j, k, l, h, n, o, p]
getMin() - a
getNaturalOrder() - a b c d e f g h i j k l m n o p
```

BASIC PRIORITYQUEUE CODE

```
PriorityQueue<Integer> pq;
pq = new PriorityQueue<Integer>();
pq.add(67);
pq.add(34);
pq.add(12);
```

```
out.println(pq.remove()); //outs 12
```

```
out.println(pq.remove()); //outs 34
```

```
out.println(pq.remove()); //outs 67
```

```
PriorityQueue is a minimum heap with the
smallest value at root.
```