

Queue, PriorityQueue源码分析

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URL: <http://developer.classpath.org/doc/java/util/PriorityQueue-source.html>

java.util.Queue 接口

常见的实现类

LinkedList, PriorityQueue

Summary of Queue methods

	Throw exception	Returns Special value
Insert	add(e)	offer(e)
Remove	remove(e)	poll(e)
Examine	element(e)	peek(e)

示例代码

```
Queue<String> queue = new LinkedList<String>();
queue.offer("one");
queue.offer("two");
queue.offer("three");
queue.offer("four");
System.out.println(queue);

String polledElement = queue.poll();
System.out.println(polledElement);
System.out.println(queue);

String peekedElement = queue.peek();
System.out.println(peekedElement);
System.out.println(queue);

while(queue.size() > 0) {
    System.out.println(queue.poll());
}
```

实现类PriorityQueue

通过堆来实现, 以及比较器 Comparator实现优先级比较

构造函数 PriorityQueue(Comparator<? super E> comparator)

方法	
boolean offer(E o)	<pre>public boolean offer(E o) { if (o == null) throw new NullPointerException(); int slot = findSlot(-1);</pre>

	<pre> storage[slot] = o; ++used; bubbleUp(slot); //调整堆，保持堆的性质 return true ; } </pre>
E poll()	<pre> public E poll() { if (used == 0) return null; E result = storage[0]; remove(0); return result; } </pre>
E peek()	<pre> public E peek() { return used == 0 ? null : storage[0]; } </pre>

实现类LinkedList

通过双向链表来实现

方法		方法	
boolean add(T o)	<pre> public boolean add(T o) { addLastEntry(new Entry<T>(o)); return true; } </pre> <p>在链表尾部增加结点</p>	boolean offer(T o)	<pre> public offer(T value) { return add(value); } </pre>
T remove()	<pre> public T remove() { return removeFirst(); } </pre> <p>删除链表的头结点，并返回该结点</p>	T poll()	<pre> public T poll() { if (size == 0) return null; return removeFirst(); } </pre>
T element()	<pre> public T element() { return getFirst(); } </pre> <p>获得链表的头结点</p>	T peek()	<pre> public T peek() { if (size == 0) return null; return getFirst(); } </pre>