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| --- |
| BasicDoubleLinkedList |
| #head : Node  #tail: Node |
| +BasicDoubleLinkedList()  + addToEnd(T data) : BasicDoubleLinkedList<T>  + addToFront(T data): BasicDoubleLinkedList<T>  + getFirst(): T  +getLast(): T  +getSize() : int  +iterator(): ListIterator<T>  + remove(T targetData, .Comparator<T> comparator): BasicDoubleLinkedList<T>  + retrieveFirstElement():T  + retrieveLastElement(): T  +toArrayList |

|  |
| --- |
| SortedDoubleLinkedList subclass of basicDoubleLinkedList |
|  |
| + SortedDoubleLinkedList(Comparator<T> comparator2)  + addToEnd(T data) : BasicDoubleLinkedList<T> //invalid  + addToFront(T data): BasicDoubleLinkedList<T> //invalid  +iterator(): ListIterator<T>  +remove(T data, .Comparator<T> comparator): SortedDoubleLinkedList<T> |

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| --- |
| Node : Inner Class of BasicDoubleLinkedList |
| #data: T  #next: Node  #previous: Node |
|  |

|  |
| --- |
| MyIterator: Inner Class of BasicDoubleLinkedList |
| #next: Node  #previous: Node |
| +MyIterator(BasicDoubleLinkedList)  + hasNext() :T  +next():T  +hasPrevious():T  +previous():T |

Exception Handling

* UnsupportedOperationException
  + Thrown by addtoFront and addToEnd
* NoSuchElementException
  + Thrown by iterator.next(), previous