## Plan Study

Java programming exercises 作为练习提高之用

## Track Records

http://docs.oracle.com/javase/8/docs/api/

http://docs.oracle.com/javase/tutorial/index.html

https://docs.oracle.com/javase/tutorial/tutorialLearningPaths.html

## 11/7/2016

https://docs.oracle.com/javase/tutorial/collections/interfaces/deque.html

Usually pronounced as deck, a deque is a double-ended-queue. A double-ended-queue is a linear collection of elements that supports the insertion and removal of elements at both end points. The Deque interface is a richer abstract data type than both Stack and Queue because it implements both stacks and queues at the same time. The Deque interface, defines methods to access the elements at both ends of the Deque instance. Methods are provided to insert, remove, and examine the elements. Predefined classes like ArrayDeque and LinkedList implement the Deque interface.

|  |  |  |
| --- | --- | --- |
| Deque Methods | | |
| Type of Operation | First Element (Beginning of the Dequeinstance) | Last Element (End of theDequeinstance) |
| Insert | addFirst(e) offerFirst(e) | addLast(e) offerLast(e) |
| Remove | removeFirst() pollFirst() | removeLast() pollLast() |
| Examine | getFirst() peekFirst() | getLast() peekLast() |

A Map is an object that maps keys to values. A map cannot contain duplicate keys: Each key can map to at most one value. It models the mathematical function abstraction. The Map interface includes methods for basic operations (such as put, get, remove, containsKey, containsValue, size, and empty), bulk operations (such as putAll and clear), and collection views (such as keySet, entrySet, and values).

The Java platform contains three general-purpose Map implementations: HashMap, TreeMap, and LinkedHashMap. Their behavior and performance are precisely analogous to HashSet, TreeSet, and LinkedHashSet, as described in The Set Interface section.

## 10/31/2016

he set method overwrites the last element returned by next or previous with the specified element.

## 10/25/2016

A List is an ordered Collection (sometimes called a sequence). Lists may contain duplicate elements. In addition to the operations inherited from Collection.

## 10/24/2016

Java platform contains three general-purpose Set implementations: HashSet, TreeSet, and LinkedHashSet. HashSet, which stores its elements in a hash table, is the best-performing implementation; however it makes no guarantees concerning the order of iteration. TreeSet, which stores its elements in a red-black tree, orders its elements based on their values; it is substantially slower than HashSet. LinkedHashSet, which is implemented as a hash table with a linked list running through it, orders its elements based on the order in which they were inserted into the set (insertion-order). LinkedHashSet spares its clients from the unspecified, generally chaotic ordering provided by HashSet at a cost that is only slightly higher.

## the union, intersection, or set difference of two sets

Set<Type> union = new HashSet<Type>(s1);

union.addAll(s2);

Set<Type> intersection = new HashSet<Type>(s1);

intersection.retainAll(s2);

Set<Type> difference = new HashSet<Type>(s1);

difference.removeAll(s2);

## ::符號

<http://docs.oracle.com/javase/tutorial/java/javaOO/methodreferences.html>

## **Kinds of Method References**

There are four kinds of method references:

|  |  |
| --- | --- |
| **Kind** | **Example** |
| Reference to a static method | ContainingClass::staticMethodName |
| Reference to an instance method of a particular object | containingObject::instanceMethodName |
| Reference to an instance method of an arbitrary object of a particular type | ContainingType::methodName |
| Reference to a constructor | ClassName::new |

## Java Collections Framework



## HEAD2

## Unknown Problem

Object::toString() 其中的四点运算符