

Standard Classes and Interfaces — Supplemental Reference

class java.lang.Object

- o boolean equals(Object other)
- o String toString()
- o int hashCode()

interface java.lang.Comparable<T>

- o int compareTo(T other)
Return value < 0 if this is less than other.
Return value = 0 if this is equal to other.
Return value > 0 if this is greater than other.

class java.lang.Integer implements Comparable<Integer>

- o Integer(int value)
- o int intValue()
- o boolean equals(Object obj)
- o String toString()
- o int compareTo(Integer anotherInteger)
- o static int parseInt(String s)

class java.lang.Double implements Comparable<Double>

- o Double(double value)
- o double doubleValue()
- o boolean equals(Object obj)
- o String toString()
- o int compareTo(Double anotherDouble)
- o static double parseDouble(String s)

class java.lang.String implements Comparable<String>

- o int compareTo(String anotherString)
- o boolean equals(Object obj)
- o int length()
- o String substring(int begin, int end)
Returns the substring starting at index begin and ending at index (end - 1).
- o String substring(int begin)
Returns substring(from, length()).
- o int indexOf(String str)
Returns the index within this string of the first occurrence of str. Returns -1 if str is not found.
- o int indexOf(String str, int fromIndex)
Returns the index within this string of the first occurrence of str, starting the search at the specified index. Returns -1 if str is not found.
- o charAt(int index)
- o int indexOf(int ch)
- o int indexOf(int ch, int fromIndex)
- o String toLowerCase()
- o String toUpperCase()
- o String[] split(String regex)
- o boolean matches(String regex)

class java.lang.Character

- o static boolean isDigit(char ch)
- o static boolean isLetter(char ch)
- o static boolean isLetterOrDigit(char ch)
- o static boolean isLowerCase(char ch)
- o static boolean isUpperCase(char ch)
- o static char toUpperCase(char ch)
- o static char toLowerCase(char ch)

class java.lang.Math

- o static int abs(int a)
- o static double abs(double a)
- o static double pow(double base, double exponent)
- o static double sqrt(double a)
- o static double ceil(double a)
- o static double floor(double a)
- o static double min(double a, double b)
- o static double max(double a, double b)
- o static int min(int a, int b)
- o static int max(int a, int b)
- o static long round(double a)
- o static double random()
Returns a double value with a positive sign, greater than or equal to 0.0 and less than 1.0.

interface java.util.List<E>

- o boolean add(E e)
- o int size()
- o Iterator<E> iterator()
- o ListIterator<E> listIterator()
- o E get(int index)
- o E set(int index, E e)
Replaces the element at index with the object e.
- o void add(int index, E e)
Inserts the object e at position index, sliding elements at position index and higher to the right (adds 1 to their indices) and adjusts size.
- o E remove(int index)
Removes element from position index, sliding elements at position (index + 1) and higher to the left (subtracts 1 from their indices) and adjusts size.

class java.util.ArrayList<E> implements List<E>

class java.util.LinkedList<E> implements List<E>, Queue<E>

Methods in addition to the List methods:

- o void addFirst(E e)
- o void addLast(E e)
- o E getFirst()
- o E getLast()
- o E removeFirst()
- o E removeLast()

class java.util.Stack<E>

- o boolean isEmpty()
- o E peek()
- o E pop()
- o E push(E item)

interface java.util.Queue<E>

- o boolean add(E e)
- o boolean isEmpty()
- o E peek()
- o E remove()

class java.util.PriorityQueue<E>

- o boolean add(E e)
- o boolean isEmpty()
- o E peek()
- o E remove()

interface java.util.Set<E>

- o boolean add(E e)
- o boolean contains(Object obj)
- o boolean remove(Object obj)
- o int size()
- o Iterator<E> iterator()
- o boolean addAll(Collection<? extends E> c)
- o boolean removeAll(Collection<?> c)
- o boolean retainAll(Collection<?> c)

class java.util.HashSet<E> implements Set<E>

class java.util.TreeSet<E> implements Set<E>

interface java.util.Map<K,V>

- o Object put(K key, V value)
- o V get(Object key)
- o boolean containsKey(Object key)
- o int size()
- o Set<K> keySet()
- o Set<Map.Entry<K, V>> entrySet()

class java.util.HashMap<K,V> implements Map<K,V>

class java.util.TreeMap<K,V> implements Map<K,V>

interface java.util.Map.Entry<K,V>

- o K getKey()
- o V getValue()
- o V setValue(V value)

interface java.util.Iterator<E>

- o boolean hasNext()
- o E next()
- o void remove()

**interface java.util.ListIterator<E> extends
java.util.Iterator<E>**

Methods in addition to the Iterator methods:

- o void add(E e)
- o void set(E e)

class java.lang.Exception

- o Exception()
- o Exception(String message)

class java.util.Scanner

- o Scanner(InputStream source)
- o boolean hasNext()
- o boolean hasNextInt()
- o boolean hasNextDouble()
- o String next()
- o int nextInt()
- o double nextDouble()
- o String nextLine()
- o Scanner useDelimiter(String pattern)