

List / ArrayList

Collection

Interfaces

List

Set

Map

ArrayList

HashSet

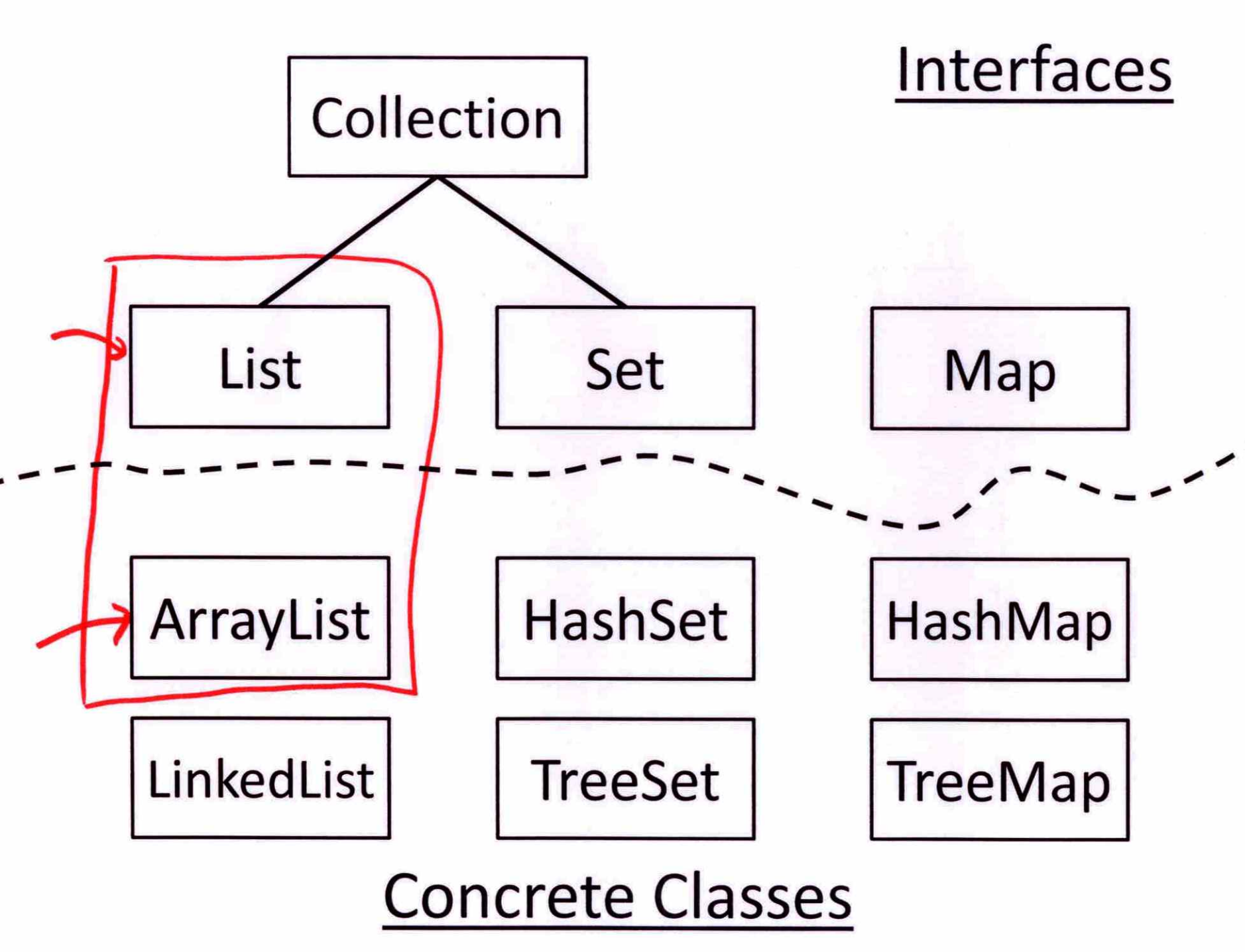
HashMap

LinkedList

TreeSet

TreeMap

Concrete Classes



Collection

Collection Base Methods:
boolean addAll(Collection c)
boolean containsAll(Collection c)
boolean removeAll(Collection c)
void clear()
boolean retainAll(Collection c)

Informative Methods:

Iterator iterator()
boolean isEmpty()
int size()

Object Based Methods:

boolean equals(Object o)
int hashCode()

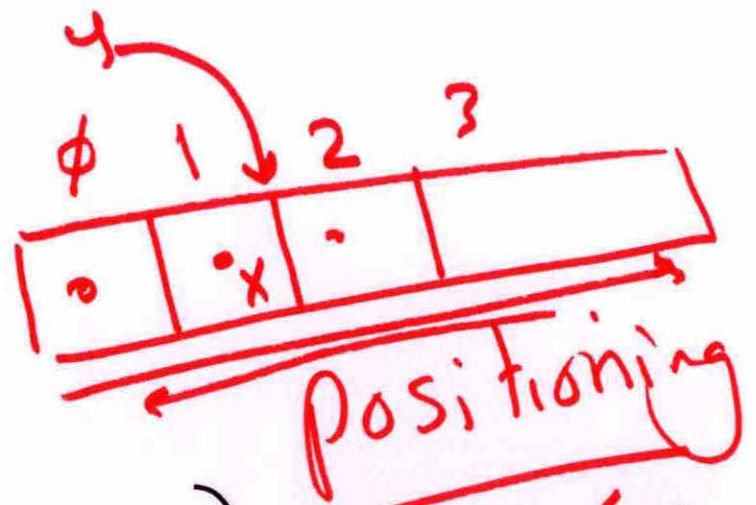
Element Base Methods:

boolean add(Object o)
boolean remove(Object o)
boolean contains(Object o)

Output To Arrays Methods:

Object[] toArray()
Object[] toArray(Object[] a)

List



التكرار خارج

hasNext()
next()
remove

Position Base Methods:

- <E> get(int index) ←
- int indexOf(Object o)
- int lastIndexOf(Object o)
- <E> set(int index, E element)
- List<E> subList(int fromIndex, int toIndex)

Substring

Special Iterator Methods:

- ListIterator<E> listIterator()
- ListIterator<E> listIterator(int index)

```
import java.util.*;
public class ListExample {
    public static void main(String[] args) {
        ArrayList<String> al= new ArrayList<String>();
        al.add("Mohammed");al.add("Yousef");
        al.add("Waheed");al.add("Fadel");
        al.add("Mohammed");al.add("Yousef");
        al.add("Waheed");al.add("Fadel");

        System.out.println(al);
        String i= al.get(1);
        System.out.println(i);
        System.out.println(al);
        ... .
    }
}
```

Output

```
[Mohammed, Yousef, Waheed, Fadel, Mohammed, Yousef, Waheed, Fadel]
Yousef ←
      ↓
[Mohammed, Yousef, Waheed, Fadel, Mohammed, Yousef, Waheed, Fadel]
```

```
.....  
System.out.println(a1.indexOf("Waheed"));  
System.out.println(a1.lastIndexOf("Waheed"));  
  
i=a1.set(0,"Abdullah");  
System.out.println(i);  
System.out.println(a1);  
System.out.println(a1.subList(2, 5));
```

[2, 5]

.....

Output

```
2  
6  
Mohammed  
[Abdullah, Yousef, Waheed, Fadel, Mohammed, Yousef, Waheed, Fadel]  
[Waheed, Fadel, Mohammed]
```

...

```
ListIterator<String> li=a1.listIterator(5);
```

```
while(li.hasPrevious()) {  
    System.out.print(li.previous()+" , ");  
}  
System.out.println("");
```

```
String[] sarr= new String[a1.size()];
```

```
a1.toArray(sarr);  
for (int j = 0; j < sarr.length; j++) {  
    System.out.print(sarr[j]+" , ");  
}
```

```
}  
}  
} Output
```

Mohammed , Fadel , Waheed , Yousef , Abdullah ,

Abdullah , Yousef , Waheed , Fadel , Mohammed , Yousef , Waheed ,
Fadel ,

Array

AL Abdullah

0	1	2	3	4	5	6	7
Mohammed	Yousef	Waheed	Fadel	Mohammed	Yousef	Waheed	Fadel

~~Mohammed~~

