# List

## Adding and Iterating

**import** **java.io.\***;

**import** **java.util.\***;

**import** **java.util.function.\*** ;

**class** **JavaMain** {

**public** **static** void main(String[] args)

{

Io.initializeIO() ;

List<Integer> list = **new** ArrayList<Integer>() ;

list.add(10) ;

list.add(11) ;

list.add(12) ;

*// Iterate in single direction*

Iterator<Integer> itr = list.iterator() ;

**while**(itr.hasNext()){

Integer num = itr.next() ;

Io.output.println(num) ;

}

*// Iterate in both directions*

ListIterator<Integer> litr = list.listIterator(list.size()) ;

**while**(litr.hasPrevious()){

Integer num = litr.previous() ;

Io.output.println(num) ;

}

Io.output.println(list) ;

Io.closeIO() ;

}

}

## Removing

**class** **JavaMain** {

**public** **static** void main(String[] args)

{

Io.initializeIO() ;

List<Integer> list = **new** ArrayList<Integer>() ;

list.add(10) ;

list.add(11) ;

list.add(12) ;

list.add(13) ;

list.add(14) ;

list.add(15) ;

Io.output.println(list) ;

*// This makes a call to remove(int) and removes element 11*

list.remove(1) ;

Io.output.println(list) ;

*// This makes a call to remove(Object) and removes element 14*

list.remove(Integer.valueOf(14));

Io.output.println(list) ;

Io.closeIO() ;

}

}

## Updating

**class** **JavaMain** {

**public** **static** void main(String[] args)

{

Io.initializeIO() ;

List<Integer> list = **new** ArrayList<Integer>() ;

list.add(10) ;

list.add(11) ;

list.add(12) ;

list.add(13) ;

list.add(14) ;

list.add(15) ;

Io.output.println(list) ;

*// Replacing element at the index 1 with 10 using method set()*

list.set(1 , 10 ) ;

Io.output.println(list) ;

Io.output.println() ;

Io.closeIO() ;

}

}

O/p :

[10, 11, 12, 13, 14, 15]

[10, 10, 12, 13, 14, 15]

## Remove Duplicates

**class** **JavaMain** {

**public** **static** void main(String[] args)

{

Io.initializeIO() ;

List<Integer> list = Arrays.asList(1,2,3,1,1,3,3,2,4,3,5) ;

Io.output.println(list) ;

List<Integer> uniqueList = **new** ArrayList<>();

**for**(Integer num : list ){

**if**(!uniqueList.contains(num)){

uniqueList.add(num) ;

}

}

Io.output.println(uniqueList) ;

Io.output.println() ;

Io.closeIO() ;

}

}

O/p :

[1, 2, 3, 1, 1, 3, 3, 2, 4, 3, 5]

[1, 2, 3, 4, 5]