ArrayList in Java

Operations :

1. Declare an ArrayList of different Types
2. Add Element
3. Get Element
4. Add Element at a specific Index
5. Set Element at a specific Index
6. Delete Element from an Index
7. Size of the List
8. Loop/Iterate on the List
9. Sort the List

```java
import java.util.ArrayList;
import java.util.Collections;

class ArrayLists {
    public static void main(String args[]) {
        ArrayList<Integer> list = new ArrayList<Integer>();
        ArrayList<String> list2 = new ArrayList<String>();
        ArrayList<Boolean> list3 = new ArrayList<Boolean>();

        //add elements
        list.add(1);
        list.add(3);
        list.add(4);
        list.add(5);
        System.out.println(list);

        //to get an element
        int element = list.get(0); // 0 is the index
        System.out.println(element);

        //add element in between
        list.add(1,2); // 1 is the index and 2 is the element to be added
        System.out.println(list);

        //set element
```

```java
        list.set(0,0);
        System.out.println(list);

        //delete elements
        list.remove(0); // 0 is the index
        System.out.println(list);

        //size of list
        int size = list.size();
        System.out.println(size);

        //Loops on lists
        for(int i=0; i<list.size(); i++) {
            System.out.print(list.get(i) + " ");
        }
        System.out.println();

        //Sorting the list
        list.add(0);
        Collections.sort(list);
        System.out.println(list);
    }
}
```

Homework Problems

Try solving all problems of arrays with arraylists.