

[Recursion] Remove duplication from a Array List.

```
import java.util.ArrayList;
import java.util.LinkedList;
import java.util.List;

public class MainClass {
    public static void main(String[] args) {
        ArrayList<String> list = new ArrayList<>();
        list.add("1");
        list.add("2");
        list.add("4");
        list.add("3");
        list.add("1");

        ArrayList<String> result =
removeDuplications(list);
        System.out.println("result: " + result.toString());
    }

    static ArrayList<String>
removeDuplications(ArrayList<String> list) {
        if (list.size() <=1 ) {
            return list;
        }
        ArrayList<String> result = new ArrayList<String>();
        String firstItem = list.remove(0);
        if (list.size() > 0) {
            result.addAll(removeDuplications(list));
        }
        if (!result.contains(firstItem)) {
            result.add(firstItem);
        }
        return result;
    }
}



---


public static ArrayList<String> removeDups (List<String>
input){
    ArrayList<String> result = new ArrayList<String>();
```

```
    if(input.isEmpty()){
        return result;
    }

    String a = input.remove(0);
    if(!input.contains(a)){
        result.add(a);
    }
    result.addAll(removeDups(input));

    return result;
}
```