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CSC142

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Self-Checking Problems

from [javahungry.blogspot.com/](http://javahungry.blogspot.com/)

1. array is static in size, fixed length data structure; but arrayList is dynamic in size
2. ArrayList cannot contain primitive data types but arrays can
3. we can use iterator in arrayList but in array, we can use loop or for each loop to iterate
4. you can easily mutate arrayLists with proper methods

4.

ArrayListName.add(3, “dark”);

ArrayListName.add(4, “and”);

8.

public static int maxLength(ArrayList<String> aList) {

if(aList.size >0) {

int max = (aList.get(0)).length();

for(int i=0; i< aList.size(); i++) {

if (max < aList.get(i)) {

max = aList.get(i);

}

return max;

} else {

return 0;

}

}

10.

[“It”, “was”, “a”, “dark”, “and”, “stormy”, “night”]

aList.indexOf(“dark”);

aList.indexOf(“and”);

16.

1. [20, 10, 20, 30, 30, 20]

2) [8, 7, 8, 2, 9, 7, 4, 4, 2, 8]

3) [33, 28, 33, -1, 3, 28, 17, 9, 33, 17, -1, 33]

18.

a [31, 21, 11]

b [5, 8, 10, 3, 9]

c [34, 10, 18, 29, 4, 0]

20. Natural Order:

Java allows you to sort your object in natural order by implementing comparable interface.

Comparable is used to provide natural order of sorting to objects: when you define your own objects, sorting it on e.g name sounds natural.

Similarly for teams, ranking seems their natural orders. It all depends how object is looked in their domain.

23.

public static void main(String []args){

Scanner console = new Scanner("to be or not to be that is the question");

ArrayList<String> input = new ArrayList<>(Arrays.asList());

while(console.hasNext()) {

String next = console.next().toLowerCase();

input.add(next);

}

Collections.sort(input);

System.out.println(input);

}