1. How to remove duplicates from ArrayList in Java?

Answer:

This is a task-based question. Since the List interface allows duplicates,

ArrayList also allowed it but if you remember Set interface doesn't allow duplicates,

which means you can remove duplicates from ArrayList by converting it into a Set and then back to ArrayList,

but how will you keep the order intact? See the answer for a more detailed explanation.

2. How to reverse ArrayList in Java?

Answer:

You can reverse ArrayList by using the Collections.reverse() method. There are a couple of

more ways like iterating through the list and copying elements into a new list. See the answer

for more ways to do this task.

3. Difference between an array and an ArrayList in Java?

Answer:

This is a fresher-level interview question, the main difference between array

and ArrayList is that the former is static and the latter is dynamic. You cannot

change the size of the array once created, but ArrayList can grow and increase its size automatically.

4. How to synchronize ArrayList in Java?

(Answer):

This is a very good task-based question. If you remember, ArrayList is not thread-safe,

its not synchronized either, which means you cannot share it between multiple threads

if one of them modifies it. Don't worry, you can synchronize ArrayList by using Collections.

synchronizedList() method. Check the answer to understand the steps.

5. When to use ArrayList and LinkedList in Java?

Answer:

This is by far the most popular ArrayList based question from Java Interviews and you can answer it very

easily if you are familiar with two key data structures, array, and linked list.

Since array provides constant-time search operation, it's better to use ArrayList if

search outnumbers add and remove operation, otherwise use LinkedList which provides constant

time add and remove operation. See the answer for a more detailed discussion on this topic.

6. Difference between ArrayList and HashSet in Java?

Answer:

One of the simplest questions you will ever see on a Java interview. The main difference is

the former is List while the later is Set which means ArrayList allowed duplicates, keeps elements

in order while HashSet doesn't allow duplicates and provides no ordering guarantee.

7. How to loop over ArrayList in Java?

Answer:

There are many ways to traverse over ArrayList, you can use classic for loop with index,

or you can take iterator from ArrayList and can use while loop in conjunction with Iterator.

hasNext() method, Or you can use the new foreach loop introduced in Java 5, which doesn't require an index. See the answer to live examples.

8. Difference between Vector and ArrayList in Java?

Answer:

This is the second most popular question based on ArrayList in Java.

Though both Vector and ArrayList implement List interface, Vector is synchronized

while ArrayList is not synchronized, which means the former is thread-safe and fast while the latter is not thread-safe and slow.

9. How to create and initialize ArrayList in one line?

Answer:

There is a nice little trick to do this by using the Arrays.asList() method,

but remember the List returned by this class has some differences with ArrayList,

please check the answer to understand what are those differences.

10. How to sort ArrayList in Java?

Answer:

You can easily sort the ArrayList by using Collections.sort() method,

all you need to make sure is that elements implement either the Comparable or Comparator interface.

The former is used to sort on natural order while the latter is used while sorting in the custom order.