How to make an ArrayList read only in Java

Given an ArrayList, the task is to make this ArrayList read-only in Java.

Examples:

```
Input: ArrayList: [1, 2, 3, 4, 5]
Output: Read-only ArrayList: [1, 2, 3, 4, 5]

Input: ArrayList: [geeks, for, geeks]
Output: Read-only ArrayList: [geeks, for, geeks]
```

Recommended: Please try your approach on *{IDE}* first, before moving on to the solution.

An ArrayList can be made read-only easily with the help of Collections.unmodifiableList() method. This method takes the modifiable ArrayList as a parameter and returns the read-only unmodifiable view of this ArrayList.

Syntax:

```
readOnlyArrayList = Collections.unmodifiableList(ArrayList);
```

Below is the implementation of the above approach:

```java
// Java program to demonstrate
// unmodifiableList() method

import java.util.*;

public class GFG1 {
    public static void main(String[] argv)
        throws Exception
    {
        try {

            // creating object of ArrayList<Character>
            List<Character> list = new ArrayList<Character>();

            // populate the list
            list.add('X');
            list.add('Y');
            list.add('Z');

            // printing the list
            System.out.println("Initial list: "
                                + list);

            // getting readonly list
            // using unmodifiableList() method
            List<Character>
                immutablelist = Collections
                                .unmodifiableList(list);

            // printing the list
            System.out.println("ReadOnly ArrayList: "
                                + immutablelist);

            // Adding element to new Collection
            System.out.println("\nTrying to modify"
                                + " the ReadOnly ArrayList.");
            immutablelist.add('A');
        }

        catch (UnsupportedOperationException e) {
            System.out.println("Exception thrown : " + e);
        }
    }
}
```

Output:

```
Initial list: [X, Y, Z]
ReadOnly ArrayList: [X, Y, Z]

Trying to modify the ReadOnly ArrayList.
Exception thrown : java.lang.UnsupportedOperationException
```

```
Initial list: [X, Y, Z]
ReadOnly ArrayList: [X, Y, Z]


Trying to modify the ReadOnly ArrayList.
Exception thrown : java.lang.UnsupportedOperationException
```