```java
/**
 * @(#)ReadFileAndSort.java
 *
 * This program read lines from a text file of unknown size
 * into an ArrayList data structure. ArrayList is dynamic.
 *
 * F. F. Piller 2013
 */

import java.io.*;
import java.util.*;
import java.lang.*;
import java.util.Arrays;
import java.util.ArrayList;

public class ArrayListExample {

    public static void main(String[] args) {

       // Create an ArrayList to hold contents of a file.
       // This declaration format is important for ArrayList objects.
       // I set an initial value to 5. It's not necessary.

       ArrayList<Integer> alist = new ArrayList<Integer>(5);

              int index = 0;
              int num = 0;
              String numString = null;

              // Get all lines from a text file.
              // Assumes each line in the file is one integer
              //   (no spaces or tokens).
              // An empty line in the file will terminate the read.
              // Convert each line into an integer and save it in the ArrayList.

              try {
                     BufferedReader inp =
                            new BufferedReader
                                   ( new FileReader ( "dynamic.txt" ) );

                     do {
                            numString = inp.readLine();
                            if ( numString != null ) {
                                   num = Integer.valueOf(numString).intValue();
                                   alist.add(num);
                                          // add it to the ArrayList (dynamic)
                            }
                     } while ( numString != null ) ;

                     inp.close();
              }

              catch ( IOException err ) {
                     System.out.println(" Failed to read file. ");
                     err.printStackTrace();
                     return;
              }
```

```
            // Dump the ArrayList to the screen.
            // Warning: the get() method returns an Object,
            //  but its type needs to be specified.
            // This is accomplished in the declaration of ArrayList
            //  (see above).

            System.out.println ( "Contents of the dynamic array ArrayList:" );
            for ( index = 0; index < alist.size(); index++ ) {
                   System.out.println ( alist.get ( index ) );
            }

            // Sort the ArrayList by converting it to a normal array first.
            // Make it the same size as the ArrayList.

            int[] intArray = new int[alist.size()];
            for ( int i = 0; i < alist.size(); i++ )
                   intArray[i] = alist.get(i);

            // Dump it to the screen to verify transfer.
            System.out.println ( "\nContents of the integer array:" );
            for ( index = 0; index < alist.size(); index++ ) {
                   System.out.println ( intArray[index] );
            }

            // You are now ready to sort the integer array.
            // This is the array you will use to do the binary search.
            // The dynamic ArrayList is no longer needed.

            Arrays.sort ( intArray );

            System.out.println ( "\nSorted contents of the integer array:" );
            for ( index = 0; index < alist.size(); index++ ) {
                   System.out.println ( intArray[index] );
            }

            alist.clear();

            System.out.println ( "\nContents of the dynamic ArrayList:" );
            for ( index = 0; index < alist.size(); index++ ) {
                   System.out.println ( alist.get ( index ) );
            }

    }
}
```