

## Sample Output

```
C:\Big3-Laptop-August2015\3300-laptop\JSU-Teaching\Fall-Semesters\Fall-2016\CSC
323>javac randomElements.java
Note: randomElements.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.

C:\Big3-Laptop-August2015\3300-laptop\JSU-Teaching\Fall-Semesters\Fall-2016\CSC
323>java randomElements
contents of the sampleVec: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 1
6, 17, 18, 19, 20, 21, 22, 23, 24, 25]

Contents of the array:
13 11 6 17 22 1 18 5 2 9 21 15 8 19 12 7 25 20 3 16 10 23 24 14 4

Contents of the 2-dim array
10 3 22 12 7
17 20 18 5 14
8 21 2 1 11
16 4 24 6 25
9 13 19 23 15
```

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## Video Link

<https://www.youtube.com/watch?v=J0A3qrfiq38>

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Browse to the next two pages for the actual Java code

```
import java.util.*;
/* This program illustrates how to populate a one-dimensional and two-
dimensional array
with elements in a random order chosen from a range of values that are
stored in order
in a Vector */

class randomElements{

    public static void main(String[] args){

        try{

            int numElements = 25;

            Vector sampleVec = new Vector();

            // we will be filling this vector with values 1...numElements
            for (int index = 0; index < numElements; index++){
                sampleVec.add(index+1);
            }

            System.out.println("contents of the sampleVec: "+sampleVec);

            Vector copySampleVec = (Vector) sampleVec.clone();

            int[] array = new int[numElements];

            Random randGen = new Random();

            for (int index = 0; index < numElements; index++){

                int randIndex = randGen.nextInt(copySampleVec.size() );

                int value = ( (Integer) copySampleVec.get(randIndex) ).intValue();

                array[index] = value;

                copySampleVec.remove(randIndex);

            }

            System.out.println("\nContents of the array: ");
            for (int index = 0; index < numElements; index++){
                System.out.print(array[index]+" ");
            }

            System.out.println();

            int numRows = (int) Math.sqrt( numElements);
            int numCols = numRows;
            int[][] twoDimArray = new int[numRows][numCols];

            copySampleVec = (Vector) sampleVec.clone();
```

```
for (int rowIndex = 0; rowIndex < numRows; rowIndex++){
    for (int colIndex = 0; colIndex < numCols; colIndex++){
        int randIndex = randGen.nextInt(copySampleVec.size() );
        int value = ( (Integer) copySampleVec.get(randIndex) ).intValue();
        twoDimArray[rowIndex][colIndex] = value;
        copySampleVec.remove(randIndex);
    }
}

System.out.println("\nContents of the 2-dim array");
for (int rowIndex = 0; rowIndex < numRows; rowIndex++){
    for (int colIndex = 0; colIndex < numCols; colIndex++){
        System.out.print(twoDimArray[rowIndex][colIndex]+" ");
    }
    System.out.println();
}

}
catch(Exception e){e.printStackTrace();}
}
}
```