

Sample Output

```
C:\Big3-Laptop-August2015\3300-laptop\JSU-Teaching\Fall-Semesters\Fall-2016\CSC
323>javac VectorExample.java
Note: VectorExample.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 VectorExample

Contents of the vector: [88, 16, 59, 94, 51, 31, 31, 61, 33, 57]

Number of elements in the vector: 10

After removing element at index 2: Contents of the vector: [88, 16, 94, 51, 31,
31, 61, 33, 57]

After adding a random value to the end of the vector: Contents of the vector: [8
8, 16, 94, 51, 31, 31, 61, 33, 57, 76]

After inserting an element at index 2 in the vector: Contents of the vector: [88
, 16, 5, 94, 51, 31, 31, 61, 33, 57, 76]

After replacing the element at index 0 with a random value: Contents of the vect
or: [78, 16, 5, 94, 51, 31, 31, 61, 33, 57, 76]

Average of the values in the vector: 48.45454545454545
```

Video Link

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

Browse the next two pages for the actual Java code

```
import java.util.*;
/* This program illustrates the basics of the Vector class and its
methods*/

class VectorExample{

    public static void main(String[] args){

        Vector sampleVec = new Vector();
        int maxValue = 100;

        Random randGen = new Random();

        for (int i = 0; i < 10; i++){
            int value = randGen.nextInt(maxValue+1);
            // random numbers from 0 ... maxValue(100)
            sampleVec.add(value);
        }

        System.out.println("\nContents of the vector: "+sampleVec);

        System.out.println("\nNumber of elements in the vector: "+sampleVec.
size() );

        sampleVec.remove(2);

        System.out.println("\nAfter removing element at index 2: Contents of
the vector: "+sampleVec);

        sampleVec.add(randGen.nextInt(maxValue+1));

        System.out.println("\nAfter adding a random value to the end of the
vector: Contents of the vector: "+sampleVec);

        sampleVec.add(2, randGen.nextInt(maxValue+1));

        System.out.println("\nAfter inserting an element at index 2 in the
vector: Contents of the vector: "+sampleVec);

        sampleVec.set(0, randGen.nextInt(maxValue+1) );

        System.out.println("\nAfter replacing the element at index 0 with a
random value: Contents of the vector: "+sampleVec);

        int sum = 0;

        for (int index = 0; index < sampleVec.size(); index++){

            int val = ( (Integer) sampleVec.get(index) ).intValue(); // Object

            sum += val;

        }

    }

}
```

```
double average = ( (double) sum ) / sampleVec.size();  
System.out.println("\nAverage of the values in the vector: "+average);  
  
}  
  
}
```