**Java Vector Examples**

The Vector class implements a growable array of objects. Like an array, it contains components that can be accessed using an integer index. However, the size of a Vector can grow or shrink as needed to accommodate adding and removing items after the Vector has been created.

# Program: Basic Vector Operations.

Below example shows how to create vector object, adding elements to it, getting elements by specifying index, getting elements index, getting first element, getting last element, and is vector is empty or not.

import java.util.Vector;

public class BasicVectorOperations {

    public static void main(String a[]){

        Vector<String> vct = new Vector<String>();

        //adding elements to the end

        vct.add("First");

        vct.add("Second");

        vct.add("Third");

        System.out.println(vct);

        //adding element at specified index

        vct.add(2,"Random");

        System.out.println(vct);

        //getting elements by index

        System.out.println("Element at index 3 is: "+vct.get(3));

        //getting first element

        System.out.println("The first element of this vector is: "+vct.firstElement());

        //getting last element

        System.out.println("The last element of this vector is: "+vct.lastElement());

        //how to check vector is empty or not

        System.out.println("Is this vector empty? "+vct.isEmpty());

    }

}

# Program: How to read all elements in vector by using iterator?

# Below example shows how to iterate through vector using iterator object. You can get iterator object by calling iterator() method.

import java.util.Iterator;

import java.util.Vector;

public class VectorIterator {

    public static void main(String a[]){

        Vector<String> vct = new Vector<String>();

        //adding elements to the end

        vct.add("First");

        vct.add("Second");

        vct.add("Third");

        vct.add("Random");

        Iterator<String> itr = vct.iterator();

        while(itr.hasNext()){

            System.out.println(itr.next());

        }

    }

}