**Assignment** **7**:

**Generic**

1.Write a generic method to find the maximal element in the range [begin, end] of a list.

Ip: {2,62, 4,78, 6, 10,49,20,59,43,29,30,56,89,}

out: 89.

**Ans: import java.util.\*;**

**public class GFG**

**{**

**public static void main(String args[]) throws Exception**

**{**

**List<Integer> list = new ArrayList<Integer>();**

**list.add(2);**

**list.add(62);**

**list.add(4);**

**list.add(78);**

**list.add(6);**

**list.add(10);**

**list.add(49);**

**list.add(20);**

**list.add(50);**

**list.add(43**

**);**

**list.add(29);**

**list.add(30);**

**list.add(56);**

**list.add(89);**

**System.out.println("List: " + list);**

**// getting minimum value**

**// using min() method**

**int minList = Collections.min(list);**

**// getting maximum value**

**// using max() method**

**int maxList = Collections.max(list);**

**// printing the minimum value**

**System.out.println("Begin value of list is: "**

**+ minList);**

**// printing the maximum value**

**System.out.println("End value of list is: "**

**+ maxList);**

**}**

**}**

**OUTPUT: List: [2, 62, 4, 78, 6, 10, 49, 20, 50, 43, 29, 30, 56, 89]**

**Begin value of list is: 2**

**End value of list is: 89**

**2** Write a generic method to count the number of elements in a collection that have a specific property (for example, odd integers, even number)

i/p :{2 ,4 ,6 ,7, 8,9,90,78,41,56,79,45,65,85}

out put :

even : 7

odd : 7

**ANS:**

**import java.io.\*;**

**class EvenOdd**

**{**

**static void CountingEvenOdd(int arr[], int arr\_size)**

**{**

**int even\_count = 0;**

**int odd\_count = 0;**

**// loop to read all the values in**

**// the array**

**for(int i = 0 ; i < arr\_size ; i++)**

**{**

**// checking if a number is**

**/*/*completely divisible by 2**

**if ((arr[i] & 1) == 1)**

**odd\_count ++ ;**

**else**

**even\_count ++ ;**

**}**

**System.out.println( "Number of even" + " elements = " + even\_count      + " Number of odd elements = "   + odd\_count) ;**

**}**

**// Driver Code**

**public static void main (String[] args)**

**{**

**int arr[] = {2, 4, 6,7,8,9,90,78,41,56,79,45,65,85};**

**int n = arr.length;**

**CountingEvenOdd(arr, n);**

**}**

**}**

**Output :**

**Number of even elements = 7**

**Number of odd elements = 7**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_END\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**