**Longest Increasing Subsequence – Code**

**package** LongestSubsequence;

**import** java.util.Scanner;

**public** **class** LongestIncreasingSubsequence {

**static** **int** incre\_subseq(**int** my\_arr[], **int** arr\_len)

{

**int** seq\_arr[] = **new** **int**[arr\_len];

**int** i, j, max = 0;

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

seq\_arr[i] = 1;

**for** (i = 1; i < arr\_len; i++)

**for** (j = 0; j < i; j++)

**if** (my\_arr[i] > my\_arr[j] && seq\_arr[i] < seq\_arr[j] + 1)

seq\_arr[i] = seq\_arr[j] + 1;

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

**if** (max < seq\_arr[i])

max = seq\_arr[i];

**return** max;

}

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

**int** a[]= **new** **int**[10];

System.***out***.println("Enter 10 numbers : ");

Scanner sc=**new** Scanner(System.***in***);

**for**(**int** i=0;i<10;i++)

{

a[i] = sc.nextInt();

}

sc.close();

**int** arr\_len= a.length;

System.***out***.println("Elements : ");

**for**(**int** i=0;i<10;i++)

{

System.***out***.println(a[i]);

}

System.***out***.println("The length of the longest increasing subsequence is " + *incre\_subseq*(a, arr\_len));

} }