**Longest increasing subsequence:**

**package** lis;

**public** **class** LIS{

**static** **int** LI\_Subseq(**int** array[], **int** arr\_len){

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

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

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

arr[i] = 1;

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

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

**if** (array[i] > array[j] && arr[i] < arr[j] + 1)

arr[i] = arr[j] + 1;

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

**if** (max < arr[i])

max = arr[i];

**return** max;

}

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

**int** array[] = {5,4,1,2,3};

//int array[] = { 10, 22, 9, 33, 21, 50, 41, 60 };

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

System.***out***.println("The length of the longest increasing subsequence is " + *LI\_Subseq*(array, arr\_len));

}

}