**public** **class** Main {

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

Random r = **new** Random(System.*currentTimeMillis*());

**int** n = r.nextInt(101) + 50;

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

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

a[i] = r.nextInt(100);

n = r.nextInt(101) + 50;

**int**[] b = **new** **int**[n];

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

b[i] = r.nextInt(100);

SortThread t1 = **new** SortThread(a); //It is not a thread yet

SortThread t2 = **new** SortThread(b); //It is not a thread yet

t1.start();

t2.start();

t1.join();

t2.join();

MergeThread m = **new** MergeThread(t1.get(),t2.get());//It is not a thread yet

m.start();

System.***out***.println(Arrays.*toString*(m.get()));

}

}

**public** **class** SortThread implements Runnable {

**int**[] x;

**public** SortThread(**int**[] x){

**this**.x = x;

}

**public** **void** run(){

sort(x);

}

**private** **void** sort(**int**[] x){

**for**(**int** i = 0; i < x.length ; i++){

**int** indexOfSmallest = findIndexOfSmallest(x, i);

**int** t = x[i];

x[i] = x[indexOfSmallest];

x[indexOfSmallest] = t;

}

}

**private** **int** findIndexOfSmallest(**int**[] a, **int** from){

**int** indexOfSmallest = from;

**for**(**int** i = from; i < a.length; i++)

**if**(a[i] < a[indexOfSmallest])

indexOfSmallest = i;

**return** indexOfSmallest;

}

**public** **int**[] get(){

**return** x;

}

}

**public** **class** MergeThread implements Runnable {

**int**[] a;

**int**[] b;

**int**[] c;

**public** MergeThread(**int**[] a, **int**[] b){

**this**.a = a;

**this**.b = b;

c = **new** **int**[a.length + b.length];

}

**public** **void** run(){

merge();

}

**private** **void** merge(){

**int** aIndex = 0, bIndex = 0, cIndex = 0;

**while**(aIndex < a.length && bIndex < b.length)

**if**(a[aIndex] < b[bIndex])

c[cIndex++] = a[aIndex++];

**else**

c[cIndex++] = b[bIndex++];

**while**(aIndex < a.length)

c[cIndex++] = a[aIndex++];

**while**(bIndex < b.length)

c[cIndex++] = b[bIndex++];

}

**public** **int**[] get(){

**return** c;

}

}