**import** java.util.Arrays;

**import** java.util.Comparator;

**import** java.util.Scanner;

**public** **class** BestFit {

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

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

**int** memoryUtilize = 0;

System.***out***.println("Enter the number of jobs: ");

**int** jobno = scanner.nextInt();

System.***out***.println("Enter the number of blocks: ");

**int** blockno = scanner.nextInt();

**int**[] jobs = **new** **int**[jobno];

**int**[] blocks = **new** **int**[blockno];

**boolean**[] flag = **new** **boolean**[blockno];

**int**[] internalFrag = **new** **int**[jobno];

System.***out***.println("Enter the sizes of jobs: ");

**for** (**int** j = 0; j < jobno; j++) {

jobs[j] = scanner.nextInt();

}

System.***out***.println("Enter the sizes of blocks: ");

**for** (**int** i = 0; i < blockno; i++) {

blocks[i] = scanner.nextInt();

}

Integer[] blockIndices = **new** Integer[blockno];

**for** (**int** i = 0; i < blockno; i++) {

blockIndices[i] = i;

}

Arrays.*sort*(blockIndices, Comparator.*comparingInt*(i -> blocks[i]));

**for** (**int** j = 0; j < jobno; j++) {

**int** bestIndex = -1;

**for** (**int** i = 0; i < blockno; i++) {

**int** blockIndex = blockIndices[i];

**if** (jobs[j] <= blocks[blockIndex] && !flag[blockIndex]) {

**if** (bestIndex == -1 || blocks[blockIndex] < blocks[blockIndices[bestIndex]]) {

bestIndex = i;

}

}

}

**if** (bestIndex != -1) {

**int** blockIndex = blockIndices[bestIndex];

flag[blockIndex] = **true**;

memoryUtilize += jobs[j];

internalFrag[j] = blocks[blockIndex] - jobs[j];

System.***out***.println("\nJob " + j + " is fitted in block no. " + blockIndex + " with internal fragmentation: " + internalFrag[j]);

} **else** {

System.***out***.println("\nJob " + j + " cannot be allocated.");

}

}

System.***out***.println("\nTotal memory utilized: " + memoryUtilize);

System.***out***.println("\nInternal Fragmentation for each job: ");

**for** (**int** j = 0; j < jobno; j++) {

System.***out***.println("\nJob " + j + ": " + internalFrag[j]);

}

}

}

