package pakage;

import java.util.\*;

public class FirstFit {

public static void main (String[]args)

{

int blockSize[] = {100, 50, 30, 120, 35};

int processSize[] = {20, 60, 70, 40};

int m = blockSize.length;

int n = processSize.length;

implimentFirstFit(blockSize, m, processSize, n);

}

static void implimentFirstFit(int blockSize[], int blocks, int processSize[], int processes) {

// This will store the block id of the allocated block to a process

int allocate[] = new int[processes];

int occupied[] = new int [blocks];

// initially assigning -1 to all allocation indexes

// means nothing is allocated currently

for (int i = 0; i < allocate.length; i++)

allocate[i] = -1;

for(int i = 0; i < blocks; i++){

occupied[i] = 0;

}

// take each process one by one and find

// first block that can accomodate it

for (int i = 0; i < processes; i++)

{

for (int j = 0; j < blocks; j++)

{

if (!(occupied[j] > 0) && blockSize[j] >= processSize[i])

{

// allocate block j to p[i] process

allocate[i] = j;

occupied[j] = 1;

break;

}

}

}

System.out.println("\nProcess No.\tProcess Size\tBlock no.\n");

for (int i = 0; i < processes; i++)

{

System.out.print(i + 1 + "\t\t\t" + processSize[i] + "\t\t\t");

if (allocate[i] != -1)

System.out.println(allocate[i] + 1);

else

System.out.println("Not Allocated");

}

}

}