package c202knapsack;

public class C202knapsack {

public static void knapSack(int maxWeight){

int[] volume = {10,40,30,50,20,70,80,90};//{30,25,20,40};//

int[] weight = {5,4,6,3,2,7,1,3};//{3,4,2,5};

int W = maxWeight;

int[][] V = new int[volume.length + 1][W + 1];

int[][] keep = new int [volume.length + 1][W +1];

for (int j = 0; j <= W; j++) V[0][j] = 0;{

for (int i = 1; i <= volume.length; i++) {

for (int j = 0; j <= W; j++) {

if((weight[i-1] <= j) && (volume[i-1] + V[i-1][j-weight[i-1]] > V[i-1][j])){

V[i][j] = volume[i-1]+ V[i-1][j-weight[i-1]];

keep[i][j] = 1; //Storing the value

}//if

else{

V[i][j] = V[i - 1][j];

keep[i][j] = 0;

}//else

}//forw

}//fori

int K = W;

System.out.println("Take Items: ");

for (int i = volume.length; i >= 1; i--) {

if(keep[i][K] == 1){

System.out.print(i - 1 +", ");

K = K- weight[i -1];

}//if

}//for

System.out.println("");

System.out.print("\n For a total of: " + V[volume.length][W] + "\n");

}//forj

}//maxWeight

public static void main(String[] args) {

knapSack(10);

}//main

}//class

output: