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| --- |
| **public** **class** Example {    **public** **static** **void** main(String[] args) {    **int**[] weights= {2,3,4,5};  **int**[] profits= {1,2,5,6};  **int** capacity=3;  **int** maxprofit=*knapsack*(weights,profits,capacity);  System.***out***.println(maxprofit);    }  **private** **static** **int** knapsack(**int**[] weights, **int**[] profits, **int** capacity) {  // **TODO** Auto-generated method stub    **int** n=weights.length;  **int**[][] dp= **new** **int**[n+1][capacity+1];  **for**(**int** i=1;i<=n;i++)  {  **for**(**int** w=1;w<=capacity;w++)  {  **if**(weights[i-1]>w)  {  dp[i][w]=dp[i-1][w];  }  **else**{  dp[i][w]=Math.*max*(dp[i-1][w],profits[i-1]+dp[i-1][w-weights[i-1]]);    }  }  }          **return** dp[n][capacity];  }    } |

<https://www.geeksforgeeks.org/problems/0-1-knapsack-problem0945/1>