

Code:

```
41427_LP-III_A3.py > ...
1  def knapSack(K_C, weight, val, n):
2      K = [[0 for x in range(K_C + 1)] for x in range(n + 1)]
3      for i in range(n + 1):
4          for w in range(K_C + 1):
5              if i == 0 or w == 0:
6                  K[i][w] = 0
7              elif weight[i-1] <= w:
8                  K[i][w] = max(val[i-1] + K[i-1][w-weight[i-1]], K[i-1][w])
9              else:
10                 K[i][w] = K[i-1][w]
11         return K[n][K_C]
12
13
14  val = [40,50,100,95,30]
15  weight = [[2,5,6,5,3]]
16  K_C = 10
17  n = len(val)
18  print("Maximum total value : ", knapSack(K_C, weight, val, n))
19
```

Output:

```
PS E:\BE\41427_LP-III_Codes\DAA> & C:/Users/abhiij/AppData/Local/P
rograms/Python/Python311/python.exe e:/BE/41427_LP-III_Codes/DAA/
41427_LP-III_A3.py
Maximum total value : 165
PS E:\BE\41427_LP-III_Codes\DAA> █
```