

```
1 # Structure for an item which stores weight and
2 # corresponding value of Item
3 class Item:
4     def __init__(self, value, weight):
5         self.value = value
6         self.weight = weight
7
8 # Main greedy function to solve problem
9 def fractionalKnapsack(W, arr):
10
11     # Sorting Item on basis of ratio
12     arr.sort(key=lambda x: (x.value/x.weight), reverse=True)
13
14     # Result (value in Knapsack)
15     finalvalue = 0.0
16
17     # Looping through all Items
18     for item in arr:
19
20         # If adding Item won't overflow,
21         # add it completely
22         if item.weight <= W:
23             W -= item.weight
24             finalvalue += item.value
25
26         # If we can't add current Item,
27         # add fractional part of it
28         else:
29             finalvalue += item.value * W / item.weight
30             break
31
32     # Returning final value
33     return finalvalue
34
35
36 # Driver Code
37 if __name__ == "__main__":
38
39     W = 50
40     arr = [Item(60, 10), Item(100, 20), Item(120, 30)]
41
42     # Function call
43     max_val = fractionalKnapsack(W, arr)
44     print(max_val)
```

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ubuntu@linux:~$ python3 DAA_Program3.py
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240.0
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ubuntu@linux:~$
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