

```

1 class ItemValue:
2     """Item Value DataClass"""
3
4     def __init__(self, wt_, val_, ind_):
5         self.wt = wt_
6         self.val = val_
7         self.ind = ind_
8         self.cost = val_ // wt_
9
10    def __lt__(self, other):
11        return self.cost < other.cost
12
13
14    def fractionalKnapSack(wt, val, capacity):
15        """Function to get maximum value"""
16        iVal = [ItemValue(wt[i], val[i], i) for i in range(len(wt))]
17
18        # sorting items by value
19        iVal.sort(reverse=True)
20
21        totalValue = 0
22        for i in iVal:
23            curWt = i.wt
24            curVal = i.val
25            if capacity - curWt ≥ 0:
26                capacity -= curWt
27                totalValue += curVal
28            else:
29                fraction = capacity / curWt
30                totalValue += curVal * fraction
31                capacity = int(capacity - (curWt * fraction))
32            break
33        return totalValue
34
35
36    if __name__ == "__main__":
37        wt = [10, 40, 20, 30]
38        val = [60, 40, 100, 120]
39        capacity = 50
40
41        # Function call
42        maxValue = fractionalKnapSack(wt, val, capacity)
43        print("Maximum value in Knapsack =", maxValue)
44
45    """
46    OUTPUT:
47
48    Maximum value in Knapsack = 240.0
49    """
50

```