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# Assignment No: 3

**Problem Statement:** Write a program to solve a fractional Knapsack problem using a greedy method.

# Code:

class Item:

def init (self, value, weight): self.value = value

self.weight = weight

def fractionalKnapsack(W, arr):

arr.sort(key=lambda x: (x.value/x.weight), reverse=True) finalvalue = 0.0

for item in arr:

if item.weight <= W:

W -= item.weight finalvalue += item.value

else:

finalvalue += item.value \* W / item.weight break

return finalvalue

if name == " main ":

W = 50

arr = [Item(60, 10), Item(100, 20), Item(120, 30)]

max\_val = fractionalKnapsack(W, arr)

print ('Maximum value we can obtain = {}'.format(max\_val))

# Input:

Weight = 50

Items = Item(60, 10), Item(100, 20), Item(120, 30)]

# Output:

