

Fractional Knapsack

This algorithm is used to efficiently utilize the weight to get the maximum possible value .

1. The function for knapsack is defined.
2. It takes two arguments: an array of value and weight ; and a number capacity.
3. It returns max_value where max_value is the maximum value of items with total weight not more than capacity.
5. The function works by choosing an item from the remaining items that has the maximum value to weight ratio.
6. If the knapsack can include the entire weight of the item, then the full amount of the item is added to the knapsack.
7. If not, then only a fraction of this item is added such that the knapsack becomes full.
8. The above three steps are repeated until the knapsack becomes full, i.e. the total weight reaches the maximum weight.