Lab 6 (6 Oct 2020)

Problem 1: In the *Fractional Knapsack problem*, we are given a set of **n** items, where each item has two attributes: a weight **w** and a value **v**. We are given a bag that can carry at most **W** units of total weight. The problem is to select for the bag such that the total weight of the items selected is at most **W** and the total value of the selected items is maximum. In this version of the Knapsack problem, we are allowed to pick fractions of the items, for e.g. half of item 1, one third of item 2, etc.

Design and implement a greedy algorithm to solve this fractional knapsack problem. Convince yourself with a proof that your algorithm is indeed correct.

Problem 2: Solve the problem on Greedy algorithms given here.