Advanced Algorithms 2016. Exercise 3

Section *Homework Exercises* on the course web provides detailed guidelines. In the first line, there is a link to the schedule of weekly exercises. It also provides information about the grader who is responsible for the weekly consultation and also taking queries for their assigned weekly exercises.

Exercise 3

We have seen that Load Balancing can be solved in polynomial time with an approximation ratio 3/2. But we can even come up with a PTAS. For simplicity let us consider the case of two machines only.

Goal: *Describe a PTAS for Load Balancing on two machines.*
Make sure that you explain it properly and give an analysis of approximation ratio and time, showing that your proposed approach is really a PTAS.

Hint: You may develop an algorithm from scratch. But it is much smarter and simpler to use the already known PTAS for Knapsack in some way.