IE 310: Homework 1 — Due:February 21st 17:00

Note: Do not change the input format. You need to submit a brief report which contains description of your sorting algorithm, found results of each instances, and brief discussion about the results.

First of all, my code is greedy heuristic, so this is first thing come to mind. My sorting algorithm is usually known as insertion sort and comparing element is the first index of tuple since our greed algorithm needs to first compare ri = pi / vi values and I hold this value in first index of the tuple. And also this algorithm gives us descending sorting list as a result. Desired result is automatically generated in "output.txt".

RESULT:

- **Test Case 1:**

  TOTAL PROFIT: 36

  OBJECTS: [(9, 2), (4, 1), (8, 3), (5, 2), (4, 2), (6, 5)]

- **Test Case 2:**

  TOTAL PROFIT: 53

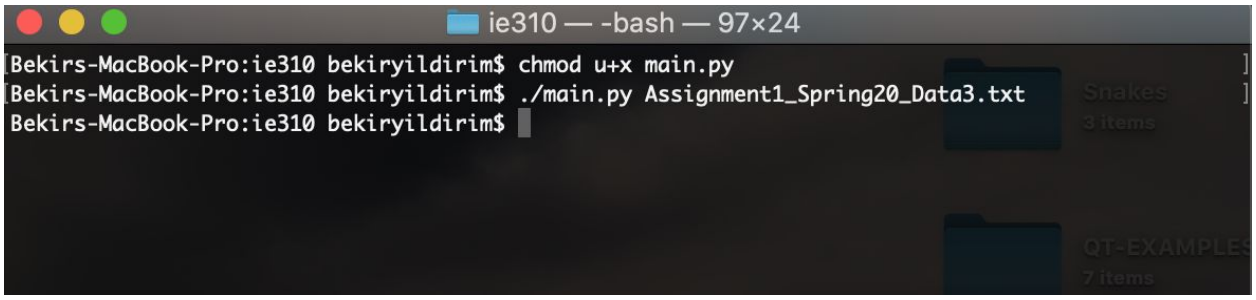
  OBJECTS: [(10, 2), (6, 4), (10, 7), (6, 5), (4, 4), (4, 4), (5, 6), (8, 15)]

- **Test Case 3:**

  TOTAL PROFIT: 171

  OBJECTS: [(17, 4), (6, 2), (19, 7), (13, 5), (6, 3), (17, 12), (20, 15), (10, 8), (16, 13), (6, 6), (13, 13), (10, 10), (14, 16), (4, 9)]

HOW TO RUN:



ABOUT THE RESULT:

Used algorithm is useful since we use binary decision variable. Otherwise, this algorithm seems as dummy and gives us wrong result.