



Atılım University
Department of Computer Engineering

CMPE 226 Data Structures
Fall, 2019-2020
Homework 3
Due Date: December 16th, 2020

You are given a comma separated text file which contains 150 information about students. They are id, name, surname, average grade of students. Following is an example section from the file.

```
...
128118145,Mervan,Behcet,25
153622669,Bugra,Ayvaz,87
131035784,Ozgur,Cihan,65
158142531,Mengu,Kartal,74
137121004,Guncicek,Elmas,62,
120254705,Aysoy,Olmez,24
154243711,Gullu,Enveri,98
125329265,Havva,Mumcu,57
154865652,Nisan,Tahir,39
151594960,Bican,Akbay,42
...
```

Your job is to read this text file into a Binary Search Tree (BST) of Student objects. The comparison of student objects should be done according to their grades, the last column of the file. There may be some duplicate grades. Your BST should ignore them as shown in sample run. Then, print the BST postorder traversal.

You can use any third party library to tokenize the text file. (Boost has a great split function to perform the tokenizing cleanly.)

Cheating and group work is strictly forbidden!

Late submissions will not be tolerated!

WRITE YOUR OWN IMPLEMENTATION OF BINARY SEARCH TREE!!! or customize the implementation on the textbook ALONE.

Sample Run:

```
...
The insert item is already in the list, duplicates are not
allowed.134514324: Sybil Griffith - 85 -->

The insert item is already in the list, duplicates are not
allowed.112367283: Melissa Mayer - 21 -->

The insert item is already in the list, duplicates are not
allowed.115868255: Reva Castro - 74 -->
```

The insert item is already in the list, duplicates are not allowed.142119778: Clayton Barrera - 40 -->

The insert item is already in the list, duplicates are not allowed.140452464: Drew Webb - 48 -->

143324936: Brooke Clements - 1 -->
117724082: Scotty Moore - 9 -->
147588974: Junior Hawkins - 10 -->
121496653: Peter Ponce - 8 -->
141220679: Aida Mann - 4 -->
114342371: Cortez Santana - 3 -->
143218417: Kate Barr - 14 -->
139552560: Jan Le - 13 -->
158205239: Greta Rangel - 15 -->
148172475: Deana Peterson - 18 →

...