Machine Problem 1: Sets

Author: Aldwyn F. Cabarrubias BSCS-III
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What's inside?

There are two (2) files and one (1) folder in this zip file, namely: README, Compiled.py and the Python3 folder. The latter contains all the classes made to make this project. Also, the most important to be run in this folder is the Tester.py (i.e. it serves as the `main()` of the project).

What are the implementations used?

Python-coded algorithms (non-API) using Binary Tree, Binary Search Tree, and AVL Tree as means for implementing Set ADT. For pretty-printing the nodes from the Trees, this MP uses the Python's built-in function `list()`. This project uses a lot of trees, thus inserting, removing and retrieving of node's data comes with the worst-case `Big-O(logn)` time complexity.

How to make it run?

There are two options:

(a) Install Python 3.3.2 release for Windows from http://www.python.org/download/releases/, which is more hassle than

(b) Visit http://www.ideone.com/ (an online Integrated Development Environment (IDE) for almost all renowned programming language), then try to compile there the codes from Compiled.py file (just right beside this file). The "Environment" must be of "Python 3"

Why Python over Java?

In order to cope up with the fast-changing side of being a UP student, I have to adapt new ideas and discoveries that will surely benefit not just myself, but also for those people who are staring at us as one of the aspiring youth of our future nation.

By the way, none of the aforementioned was true. I chose Python over Java just to learn.

Anyways, my ideas of algorithms in this MP are *referred* from a Java reference book.

Reference

Search Tree Structures. (n.d.). In M. T. Goodrich, & R. Tamassia, *Data Structures and Algorithms in Java (Fifth Edition)* (pp. 432-453). John Wiley & Sons, Inc.