COMP2402/2002 - Summer 2012 - Assignment 3

Posted: Friday, June 8^th
Due: Tuesday, June 19^{th} (up load it on Web-CT)

- Must be uploaded on Web CT
- Make a folder neamed as
  (< $StudentID$ >_<First Name>_<Last Name>_<Assignment #>)
- Put all the source files into that folder
- Add a text file with your Id and full name and any comment you have about your assignment
- Zip the folder
- Upload it on Web-CT.

(All implementation will be done in Java, in code that will run on the SCS lab machines)

In this assignment you will practice implementing a tree-like data structure: A **TwoFourTree**.

This structres will implement a **SSet** interface, which is a simplified version of the java.util.SortedSet interface.

The SSet interface

This interface is described in the file **SSet.java**.

- Although there are many methods in the the **SimpleList** interface, most are not very complicated.
- To keep things simple, just implement a default (no argument) constructor for your data structures.
- You can start with the skeleton code presented in TwoFourTree.java and TwoFourNode.java.

Sorted Set

Background

As we saw in class a **Sorted Set** stores elements in order without duplications and support all the operations as mathemaical Set (Union, Diference, Intersection). It could be implemented in several ways but this time we will do it using a 2-4 tree. Thus the structure must satisfies the properties of both Sorted Set and 2-4 trees.

To implemented

- You will implement a **TwoFourTree**.
- Make sure it is named "**TwoFourTree**" and saved in a file **TwoFourTree.java**.
- Your **TwoFourTree** must implement the interface of **SSet.java**.

Please include a README file which tells the TA any important details about your submission, and mentions what works and what doesn't (and when).