ASSIGNMENT 02 DUE 03-13-2015 09.00AM CST (Friday Morning)

You have less than 2 weeks to finish this assignment

A collection is an object that gathers and organizes other objects. It is a kind of data container. A stack is a linear collection whose elements are added and removed from the same end. We say that a stack is processed in a last in, first out (LIFO) manner.

A data structure is the collection of programming constructs used to implement collections.

In this assignment, you are going to use linked list data structure in order to implement the stack collection. Please remember that in assignment 01, you implemented the stack collection using a different data structure, namely arrays. Solution of the assignment 01 is available on the moodle.

Please note that you need to be familiar with the following Java programming language concepts in order to do this assignment:

i) Object oriented programming
ii) Interfaces
iii) Interface implementation
iv) Exception handling

Please note you are NOT allowed to use predefined Java methods unless otherwise stated.

You are given 3 files. StackInterfaceAssignment02.java is the interface file that is designed for the stack class you will define. Please note that you must NOT change anything in this file. StackAssignment02.java is the file for the StackAssignment02 class definition. You are provided comments in the file. Those comments explain the requirements of this assignment. For example, you should implement all the methods in the interface and add required methods.

After you finish the implementation of the class StackAssignment02, please run your program using the file MainAssignment02.java. Please note that you must NOT change anything in this file as well.

Please note that if you do not implement the interface provided, your assignment grade will be 0 out of 100. Cheating will not be tolerated.

As a part of the grading process, you will be asked several questions about your code and if you could not answer the questions, your assignment grade will be 0 out of 100.

There will be discussions about the Assignment 02 on the following days during the lectures:

03-03-2015 03-05-2015 03-10-2015 03-12-2015