Programming Assignment 1

Posted on: Mar 9, 2015
Due on: **Mar 16, 2015 (Mon) 11.59pm** (send email with the source code)

The purpose of this assignment is to become familiar with COOL programming language constructs. You will implement the stack data structure in COOL. Please look in the examples directory in the cool distribution for sample code.

**Problem Specification:**
A stack is a data structure that can perform two operations:

- Push, or insert data into the data structure
- Pop, or delete data from the data structure that was last inserted

Write a program in COOL programming language to implement a stack of integers. The program should give the following options to the user:

- Push: Insert integers into the stack
- Pop: Delete integers from the stack
- Show content: Show all the integers present in the stack
- Quit program

The options must be displayed repeatedly until the user quits the program. You may use the list data structure implemented in the examples directory.

Note that you should handle the corner cases when (a) user pops from an empty stack by showing error message “Empty stack” and (b) if the stack has fixed size, and the stack is full, the program should throw an error message “Stack is full – Cannot insert”