Lab 3: Stacks

For this lab you will be implementing a stack data structure using a templated vector class. A stack is just taking the underlying data structure and putting limits on where in the structure you can add/remove/access/change values. In the case of stacks, all of these operations are only done on one end of the underlying data structure.

Tasks:

1. Open Visual Studio 2010 and select C++ Development Settings. Create a new empty C++ project for the lab called Lab3.
2. Download the files tester.cpp, and stack_vec_tpt.h from D2L into your project folder.
3. In the solution explorer in Visual Studio, right click the project, click “Add->Existing Item.” Select the 2 copied lab files and add them.
4. Edit stack_vec_tpt.h to implement the requested methods.
   NOTE: Use T() to get datatype neutral value when needed.
   HINT: Treat the last element of the vector (determined by size) as the top of the stack.
5. Add the logic for the following functions:
   a. push
   b. pop
   c. top
6. Compile and run the test code. Resolve any errors until the code compiles successfully and outputs the expected results.
7. Zip the solution folder and submit through dropbox.