Binary search trees were studied in CS2401. In particular, we covered three recursive methods to print the elements of a BST: pre-order, in-order, and post-order. In this lab you will convert these recursive methods to iterative methods using a stack.

Use the method for construction of binary search trees that you programmed in CS 2401, or use the implementation described in the textbook. Then build a binary search tree using randomly generated integers. Finally, run the three types of traversal using the standard recursive methods and your stack-based methods, making sure that the results obtained are identical.

As usual, write a report describing your work.