Assignment No. 1

Deadline

Your assignment must be uploaded/submitted before or on **16th of December, 2017**

Rules for Marking

It should be clear that your assignment will not get any credit if:

- The assignment is submitted after due date
- The assignment is copied

Objective

The objectives of this assignment are,

- **Developing in students the understanding of Queue and Binary search tree.**
- **Making students capable to use the Queue data structures in their various problems.**
- **Making student able to implement the Queue and BST in their problems**

Assignment

Question No 1. (10 Marks)

Complete the body of this function. Use a Queue of characters to store the input line as it is being read.

```
int counter( )
// Precondition:
// There is a line of input waiting to be read from cin.
// Postcondition:
// A line of input has been read from cin, up to but not
// including the newline character. The return value of
// the function is the number of times that the LAST
// character of the line appeared somewhere in this line.
// EXAMPLE
// Input: PQQYDYYTY
// The value returned by the function counter would
// be 4 for this input since there are 4 Y's in
// the input line.
{
        //Place implementation code here for above conditions.
        int answer = 0;
        Queue q;
}
```

Question No. 2 (5 Marks)

Consider a binary search tree (BST) that is initially empty. Draw the tree that will result if the following numbers are inserted in the order given: 7, 3, 8, 1, 6, 2, 9, 5.