Assignment (Stack)

1. In a stack push and Pop operation takes O(1) time. Implement a stack which performs these two operations and in addition also has a min and max function to print the minimum and maximum of the stack. Try to implement min and max in O91).
2. Editors/compilers are designed in such a way that if we miss either a (OR) in given syntax , error is reported. Write a code to check if a certain string S consists of '(' or ')' , then opening and closing parentheses are in correct order.
3. An array Arr consists of Integers. Arr represents a histogram. Let Arr[i] represent the height of the ith bar in the histogram. Find the width of the largest histogram assuming width of each bar is 2 units.
4. Using the concept of stack convert an infix expression to its post fix notation
5. Reverse a Given number Using Stack
6. We have a stack of books. As we increase the number of books in a stack, we may see that the stack may topple. And then we start a new stack. Create a data structure *packofstacks*. packofstacks.pop() must behave in the same way as if there were a single stack. Hint: set capacity of stack of your own.
7. Sort a stack in such a way that the smallest element is at the top of the stack . Note you can use an additional stack but not a temporary array for the same.