1. Check balancing of symbols ( like ‘{‘, ‘(‘, ‘[‘ ) and their order using stack.
2. Evaluate postfix expression using stack. Example: postfix fix expression is 6 5 2 3 + 8 \* + 3 + \*

Hint: When number is seen, it is pushed onto the stack; when an operator is seen, the operator is applied to the two numbers that are popped from the stack, and the result is pushed onto the stack.

1. Design a queue to which stores process details like process id, arrival time, execution time and priority. Determine the turn-around time and waiting time for each jobs for following scheduling algorithms.
2. First Come First Serve
3. Shortest Job First
4. Design a stack using a single queue as variable an instance, and only constant additional local memory within the method bodies.
5. Suppose you have a stack S containing n elements and a queue Q that is initially empty. Write function that use Q to scan S to see if it contains a certain element x, with the additional constraint that your algorithm must return the elements back to S in their original order. You may use S, Q and a constant number of other variables.
6. Design a queue using two stacks as instance variables, such that all queue operations execute in amortized O (1) time.