

# Week 3 and 4: Stacks/ Queues/ STL/ Number Theory

## Resource

1. <https://cp-algorithms.com/>
2. [https://www.youtube.com/playlist?list=PL\\_z\\_8CaSLPWdeOezg68SKkeLN4-T\\_jNHd](https://www.youtube.com/playlist?list=PL_z_8CaSLPWdeOezg68SKkeLN4-T_jNHd)
3. [https://www.youtube.com/playlist?list=PL\\_z\\_8CaSLPWdtY9W22VjnPxG30CXNZpI9](https://www.youtube.com/playlist?list=PL_z_8CaSLPWdtY9W22VjnPxG30CXNZpI9)
4. <https://www.geeksforgeeks.org/stack-data-structure-introduction-program/>
5. <https://www.geeksforgeeks.org/stack-in-cpp-stl/>
6. <https://www.geeksforgeeks.org/queue-set-1-introduction-and-array-implementation/>
7. <https://www.geeksforgeeks.org/priority-queue-set-1-introduction/>
8. <https://www.geeksforgeeks.org/deque-set-1-introduction-applications/>
9. <https://www.geeksforgeeks.org/queue-interface-java/>
10. <https://www.geeksforgeeks.org/circular-queue-set-1-introduction-array-implementation/>
11. <https://practice.geeksforgeeks.org/problems/game-with-string4100/1>

## Questions

1. Design stack - <https://leetcode.com/problems/min-stack/>
2. Valid Parentheses - <https://leetcode.com/problems/valid-parentheses/>
3. Sort a stack - <https://practice.geeksforgeeks.org/problems/sort-a-stack/1>
4. Stack using Queue - <https://leetcode.com/problems/implement-stack-using-queues/>
5. Next Smaller Element -  
<https://leetcode.com/problems/final-prices-with-a-special-discount-in-a-shop/>
6. <https://practice.geeksforgeeks.org/problems/get-minimum-element-from-stack/1>
7. First non-repeating character in stream -  
<https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream1216/1>
8. Queue using stacks - <https://leetcode.com/problems/implement-queue-using-stacks/>
9. Implement Queue -  
<https://practice.geeksforgeeks.org/problems/implement-queue-using-array/1>
10. Reverse a queue - <https://practice.geeksforgeeks.org/problems/queue-reversal/1>
11. <https://practice.geeksforgeeks.org/problems/game-with-string4100/1>

## Number Theory-

1. <http://codeforces.com/problemset/problem/230/B>
2. <http://codeforces.com/problemset/problem/472/A>
3. <https://codeforces.com/problemset/problem/313/A>
4. <https://codeforces.com/problemset/problem/749/A>
5. <http://codeforces.com/problemset/problem/122/A>
6. <https://www.codechef.com/problems/CRDGAME3>
7. <https://codeforces.com/contest/1343/problem/D>