Topic: Stack Practice Problems

1. Valid Parentheses – *Link*

2. Implement Queue using Stacks – *Link*

3. Backspace String Compare – *Link*

4. Remove All Adjacent Duplicates In String – *Link*

5. ***Min Stack*** – *Link (Great for teaching struct design with auxiliary arrays)*

6. ***Evaluate Reverse Polish Notation*** – *Link (Perfect for integer stack operations)*

7. ***Daily Temperatures*** – *Link (Introduction to Monotonic Stack)*

8. ***Asteroid Collision*** – *Link (Simulation logic using arrays)*

9. ***Next Greater Element I*** – *Link*

10. ***Largest Rectangle in Histogram*** – *Link (Advanced Monotonic Stack usage)*

Topic: Queue Practice Problems

1. Implement Stack using Queues – Link

2. Number of Recent Calls – Link

3. Time Needed to Buy Tickets – Link

4. First Unique Character in a String – Link *(Requires a simple frequency array of size 26)*

5. **Design Circular Queue** – Link *(Essential: Tests Ring Buffer logic* `(index + 1) % size`*)*

6. **Design Circular Deque** – Link

7. **Dota2 Senate** – Link *(Simulation: popping front and pushing to back)*

8. **Reveal Cards In Increasing Order** – Link

9. **Longest Continuous Subarray With Absolute Diff Less Than or Equal to Limit** – Link *(Good Sliding Window practice using a Deque)*

10. **Sliding Window Maximum** – Link *(The standard Monotonic Queue problem)*