Sliding Window: Fixed

A subset of the Two Pointer Method, but uses left and right pointers to define the bounds of a "window" in iterable data structures like arrays. The window defines the subcomponent, like subarray or substring, and it slides across the data structure in one direction, searching for a subcomponent that meets a certain requirement.

When to use:

- Data Structure: Linear such as Array, Linked List
- Find a Subcomponent of a length

Brute Force:

- Finding all possible subcomponents for an answer using a Nested Loop
  - Outer Loop traverses the array for the first element of the pair
  - Inner Loop traverses the rest of the array to find second element
- Time Complexity is O(n^2) where n is length of the loop (Two Loops)

Real-World Example:

Buffering in Video Streaming

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