SHORT NOTES:-

📜❤️🔥 STRING PATTERNS CHEAT SHEET ❤️

✅ **Goal / Problem Type**	✅ **Core Idea / Pointer Use**
✅ Check Palindrome	Move inward comparing characters (2 pointers)
✅ Reverse String	Swap start/end, move pointers inward
✅ Reverse Words in Sentence	Reverse whole string, then reverse each word (2 pointers)
✅ Longest Palindromic Substring	Expand around center with 2 pointers
✅ Remove Outermost Parentheses	Track depth count with stack
✅ Remove Adjacent Duplicates	Stack → remove pairs
✅ Valid Parentheses	Stack → match opens/closes
✅ Longest Substring Without Repeat	Sliding window → grow/shrink to keep unique
✅ Longest Substring with at most K distinct	Sliding window → count distinct, shrink if > k
✅ Check Anagram	Sort or frequency array/map → compare counts
✅ Isomorphic Strings	HashMap → map s[i] to t[i] and vice versa
✅ Sort Characters by Frequency	Count freq in map → sort by freq
✅ Longest Common Prefix	Sort array → compare first and last string
✅ Largest Odd Number in String	Observation → find last odd digit
✅ Maximum Nesting Depth	Observation → count depth levels
✅ Roman to Integer	Observation → add/subtract based on next value
✅ Implement Atoi	Observation + parsing rules → convert string to integer

✅✅⭐ Mini Legend:

✅ *Two Pointers* → compare or reverse from ends

✅ *Stack* → matching pairs, nesting

✅ *Sliding Window* → move start/end to maintain condition

✅ *HashMap* → counting, mapping

✅ *Sort* → ordering or prefix compare

✅ *Observation* → direct property / rule