**String Theory**

**Sliding window Algorithm**

Checks whether the pattern exist in the string .

Look through the window of length of pattern and compare each letter.

**String Hashing**

Checks 2 strings are equal or not in O(1)

hash(s)=s[0]+s[1]⋅p+s[2]⋅p^2+...+s[n−1]⋅p^n−1modm

=∑i=0n−1s[i]⋅p^I modm,

P is a number greater then alphabets generally 31for English alphabets and 53 for lower and upper case .

M is larege number in 10 to the power 9.