

String -4

08 December 2025

20:35

Check if it contains the substring

$s_1 = "ab"$

$s_2 = "eidbaoo"$

freq1: a \rightarrow 1

b \rightarrow 1

rest \rightarrow 0, $k=2 \rightarrow "ab"$

freq1 = vector<int>(26, 0)

freq2 = vector<int>(26, 0)

initial window in $s_2 \rightarrow "ei"$

e \rightarrow 1, i \rightarrow 1, rest \rightarrow 0

freq1 \neq freq2

Slide the window

window size = 2

i = 2 to end

i = 2

$s_2[i] = 'd'$

\Rightarrow include 'd', remove 'e'

\Rightarrow window = "id" \Rightarrow i \rightarrow 1, d \rightarrow 1, rest \rightarrow 0

freq1 == freq2

i = 3

include 'b', remove 'i'

window "db"

freq2: d \rightarrow 1, b \rightarrow 1, rest \rightarrow 0

freq1 \neq freq2

i = 4

include 'a', remove 'd'

Window "ba"

b \rightarrow 1, a \rightarrow 1, rest \rightarrow 0

freq2 == freq1 \checkmark return true

$s_1 = "ab"$

$s_2 = "eidbaoo"$

