

String -4

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20:35

Check if it contains the substring

$s_1 = "ab"$

$s_2 = "eidbaooo"$

$\text{freq}_1: a \rightarrow 1$

$b \rightarrow 1$

$\text{rest} \rightarrow 0, [k=2] \rightarrow "ab"$

initial window in $s_2 \rightarrow "ei"$

$i \rightarrow 1, j \rightarrow 1, \text{rest} \rightarrow 0$

$\boxed{\text{freq}_1 \neq \text{freq}_2}$

slide the window

window size = 2
 $i=2$ to end

$i=2$

$s_2[2] = 'd'$

\Rightarrow include 'd', remove 'e'

\Rightarrow window = "id" $\Rightarrow i \rightarrow 1, d \rightarrow 1, \text{rest} \rightarrow 0$

$\boxed{\text{freq}_1 \neq \text{freq}_2}$

$i=3$

include 'b', remove 'i'

window "db"

$\text{freq}_2: d \rightarrow 1, b \rightarrow 1, \text{rest} \rightarrow 0$

$\boxed{\text{freq}_1 \neq \text{freq}_2}$

$i=4$

include 'a', remove 'd'

window "ba"

$b \rightarrow 1, a \rightarrow 1, \text{rest} \rightarrow 0$

$\boxed{\text{freq}_2 = \text{freq}_1}$ ✓ return true

$\text{freq}_1 = \text{vector<}int\text{>}(26, 0)$

$\text{freq}_2 = \text{vector<}int\text{>}(26, 0)$

$s_1 = "ab"$

$s_2 = "eidbaooo"$

