Class 7

Wednesday, May 5, 2021 7:55 PM

#1: S, t

getHash(L, R)

S → | a | a | b | a | c | x | y | a | e | f | a | a | b | a |

L_t ← |t| → | a | a | b |

H_t == getHash(i, i + L_t - 1)

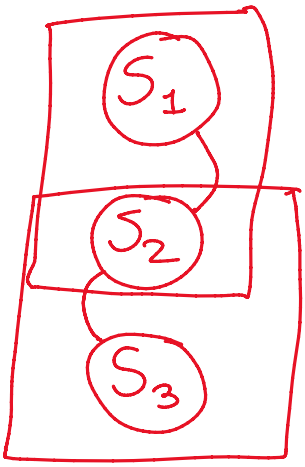
0, 0+3-1 → 0, 2 2, 4

1, 3

generate prefix hash table

for(i = 0; i + L_t < L_s; i++)

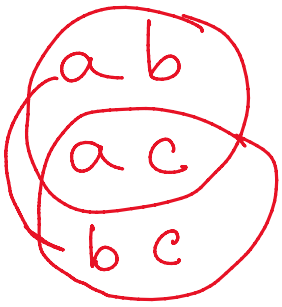
cnt += (H_t == getHash(i, i + L_t - 1));

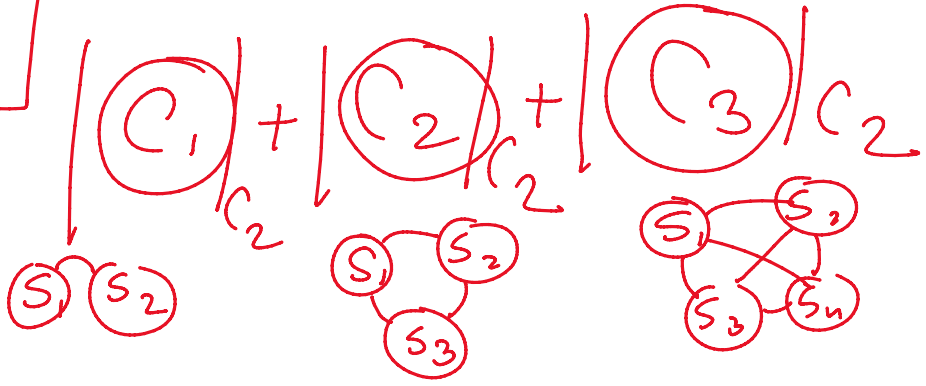


S_1, S_2 → Similar

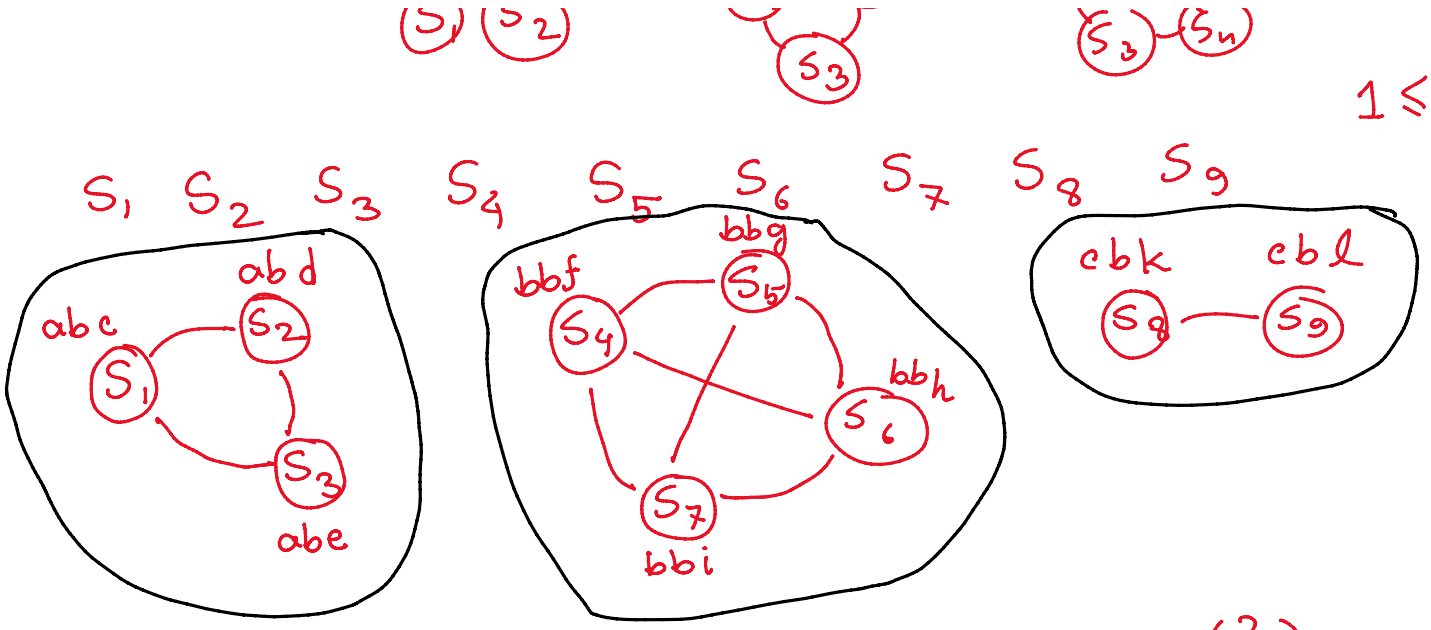
S_2 S_3 → Similar

S_1, S_3 → ?





1 < N, M ≤ 10



$1 \le N, M \le 10$

$\binom{3}{2} + \binom{4}{2} + \binom{2}{2}$

$3 + 6 + 1 = 10$

abcdefg → $25 \times M$ ~ 175 strs + 1 str $\quad 1 \le NM \le 10^6$

New → abcddfg → $25 \times M$ ~ 175 strs $\quad$ cnt += f[abcdef g]

→ abcdefg

cnt = 4

1) abcdefg → 31

2) abcddfg → 58

3) abcdddg → 03

4) zxcdefg → 98

5) axcdefg → 25 M

zxcdefg

abcdefg

f 1 175

98, 31

→ 4

1 2 3 4 5 6

1 2 4 5 6

1 2 4 0 0 0

O(1)

O(1)

z x c d e f g

a b c d e f g

$O(1)$

$O(1)$

$$O(25MN)$$

$$2.5 \times 10^7$$

$$
\begin{array}{r}
124000 \\
(+)\quad 456 \\
\hline
124456
\end{array}
$$

4 ↓

$$
\begin{array}{r}
123456 \\
-\ 400
\end{array}
$$

$$
\begin{array}{r}
123456 \\
123300 \\
\hline
123156
\end{array}
$$

4

4×10^2

124456

$5-2=3$

③

3×10

$(n-1-idxNo)$

10

$$
\begin{array}{r}
123456 \\
(-)\quad 3000 \\
\hline
120456 \\
(+)\quad 4000 \\
\hline
124456
\end{array}
$$

$$\frac{NM}{10^9} \qquad \frac{NM}{10^{19}}$$

$$\frac{10^6}{10^9} = 10^{-3} = 0.001 \qquad \frac{10^6}{10^{19}}$$

(a, b) cnt++

(b, a) cnt++

cnt/2