

BOYER MOORE:

T → A I N A I S E S T I Z A I N A I N E N.

P → A I N A I N E N
0 1 2 3 4 5 6 7 8

→ Create a Bad character table.

* : size of pattern.

last element of P = size of the pattern value pattern.

» Bad character table

A I N E *

value: → 4 3 8 1 8

$$\begin{aligned}
 v(e) &= 8/4 \text{ length of pattern - index } -1 \\
 &\approx 8 - 6 - 1 \\
 &= 1 //
 \end{aligned}$$

$$\begin{aligned}
 v(i) &= 8 - 4 - 1 \\
 &= 3 //
 \end{aligned}$$

$$\begin{aligned}
 v(a) &= 8 - 3 - 1 \\
 &= 4 //
 \end{aligned}$$

pattern: ~~W I N E *~~

4 3 8 1 8. ~~11~~

compare:

T: ~~W I N A I S e {S}~~

P: ~~W I N A I N e {N}~~

no matching,
compare S no is
bad character, if
not present then take
the '*' value.

$S = * = 8$.

jump 8 values forward
in T.

↓

T: T I 2 A I N A {I}

P: ~~W I N A I N e {N}~~

no matching.
 $I = 3$ is bad
character.

jump 3 forward

↓

1

T: ~~W I N A I N E N~~

P: ~~W I N A I N E N~~

→ matching.

2) T: W E L C O M E T O K L E
 P: T O K L E
 0 1 2 3 4

» bad character table.

T	O	K	L	C	*
4	3	2	1	5	5

$$v(L) = 5 - 3 - 1 \\ = 1$$

$$v(O) = 5 - 1 - 1 \\ = 3$$

$$v(K) = 5 - 2 - 1 \\ = 2$$

$$v(T) = 5 - 0 - 1 \\ = 4.$$

T: W E L C {O}
 P: T O K L {E},

no matching,

O = 3 : jump forward

T: C O M E , T → no matching.

P: T O K L {E},
 ↓
 T=4 → jump forward.

T: T O K L E → matching

P: T O K L E

3) T: WELCOME TO KLE COLLEGE

P: COLLEGE

Bad character table

\rightarrow C O L E * 4 *

6 5 3 7 1 7

$$v(e_1) = 7 - 5 - 1 \\ = 1$$

$$v(L) = 7 - 3 - 1 \\ = 3$$

$$v(O) = 7 - 1 - 1 \\ = 5$$

$$v(C) = 7 - 0 - 1 \\ = 6$$

compar:

T: W E / L) C O (M / E) \rightarrow matching

P: C O L L E G E

not matching.

$m = \epsilon - 7$. } last character of a
comparing tabl.

jump forward

T: T O K L E C O \rightarrow X no matching

P: C O L L E G E

O = 5]

jump forward

T: C O L L E G E

P: C O L L E G E

matching.

NOTE:

$$\rightarrow \begin{matrix} x & x & x & x & x & \epsilon \end{matrix} \in \{0\}$$

$$\begin{matrix} x & x & x & x & x & \epsilon \end{matrix} \in \{M\}$$

no match.

$0 =$ value from bad character table, ('y' present)

(or)

If no, then $0 = \#$.

$$\begin{matrix} x & x & x & x & \epsilon = 0 \\ x & x & x & x & \epsilon \in \{e, 0\} \end{matrix} \rightarrow \text{matching}$$

no match.]

then $\epsilon =$ value of last character
in 'T'

i.e.; $\boxed{\epsilon = 0}$