

Naive's algorithm

- It is used for pattern matching .

Text — ABCABDAABC

Pattern - ABD

Working

	0	1	2	3	4	5	6	7	8	9
T =	A	B	C	A	B	D	A	A	B	C

P =	A	B	D
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Step-1

T =	A	B	C	A	B	D	A	A	B	C
-----	---	---	---	---	---	---	---	---	---	---

P =	A	B	D
-----	---	---	---

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

P =

A	B	D
---	---	---

Total Comparisons = 3

Step-2

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

P =

A	B	D
---	---	---

No. Of comparisons = Previous Comp + Present Comp

$$= 3 + 1 \rightarrow 4$$

Step-3

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

P =

A	B	D
---	---	---

No.of comp = 4+1 \rightarrow 5

Step-4

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

P =

A	B	D
---	---	---

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

A	B	D
---	---	---

T =

A	B	C	A	B	D	A	A	B	C
---	---	---	---	---	---	---	---	---	---

A	B	D
---	---	---

Total Comp = 5+3

= 8

Analyze and apply the naive-string matching algorithm for the following pattern and text:

text:

A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

pattern:

A	A	A	A	A	A	A	B
---	---	---	---	---	---	---	---