

Brute Force (3 GB)

BANANA
BAN
ANA
NAN
ANA

$O(nm)$

Naive

Slow & Easy

Suffix Array (>15 GB)

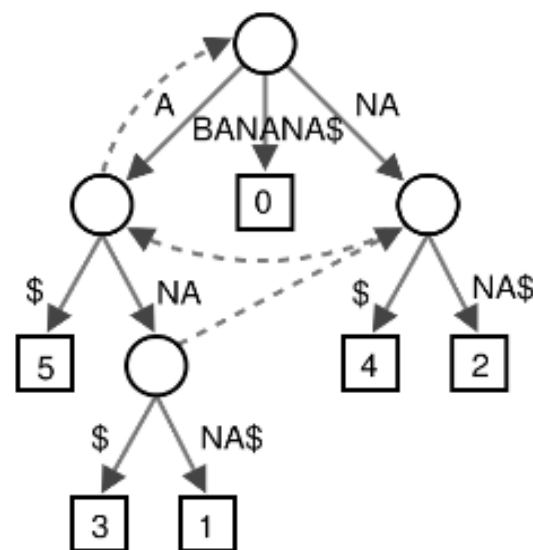
6	\$
5	A\$
3	ANA\$
1	ANANA\$
0	BANANA\$
4	NA\$
2	NANA\$

$O(m \log n)$

Vmatch, PacBio Aligner

Binary Search

Suffix Tree (>51 GB)

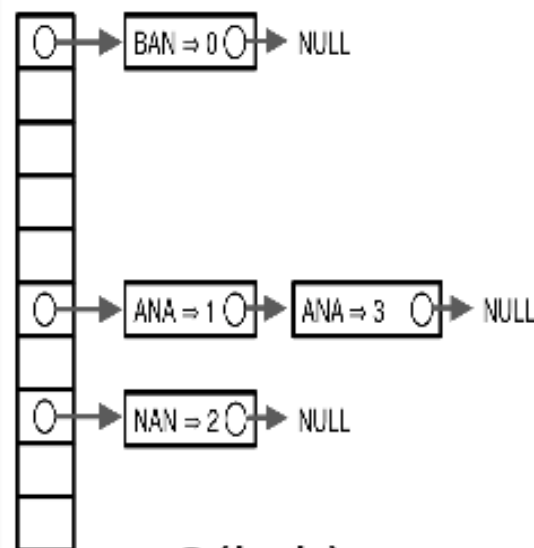


$O(m+k)$

MUMmer, MUMmerGPU

Tree Searching

Hash Table (>15 GB)



$O(l+k)$

BLAST, MAQ, ZOOM,
RMAP, CloudBurst

Seed-and-extend