De Bruijn graph
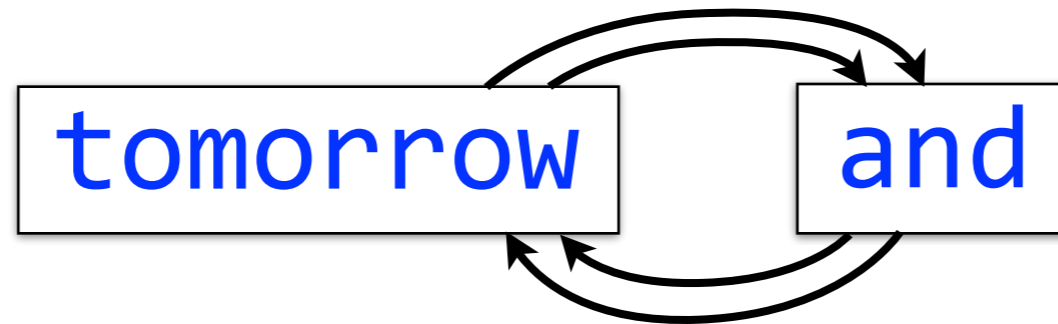
"tomorrow and tomorrow and tomorrow"
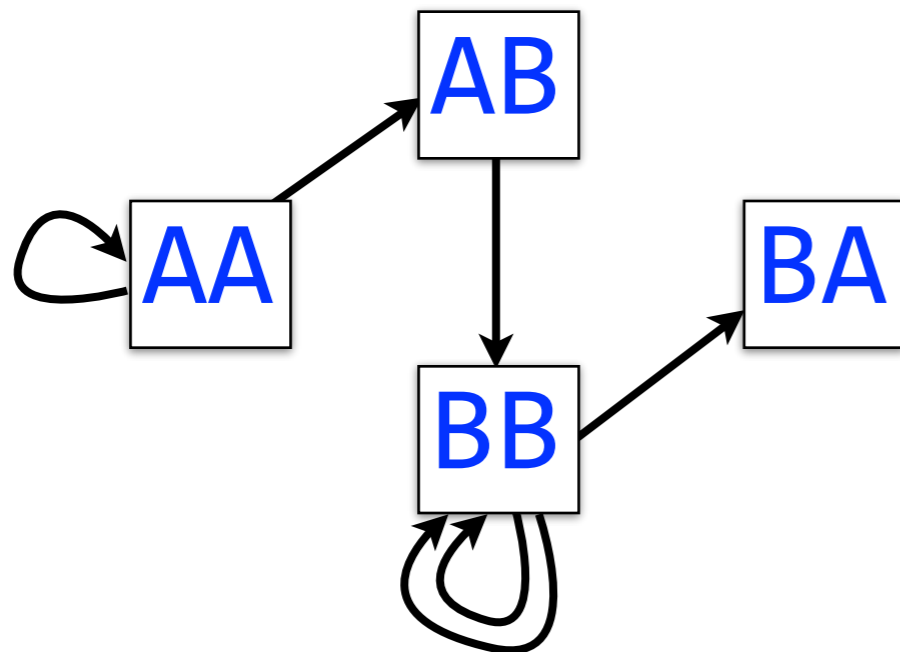
De Bruijn graph

genome: AAABBBBA

3-mers: AAA, AAB, ABB, BBB, BBB, BBA

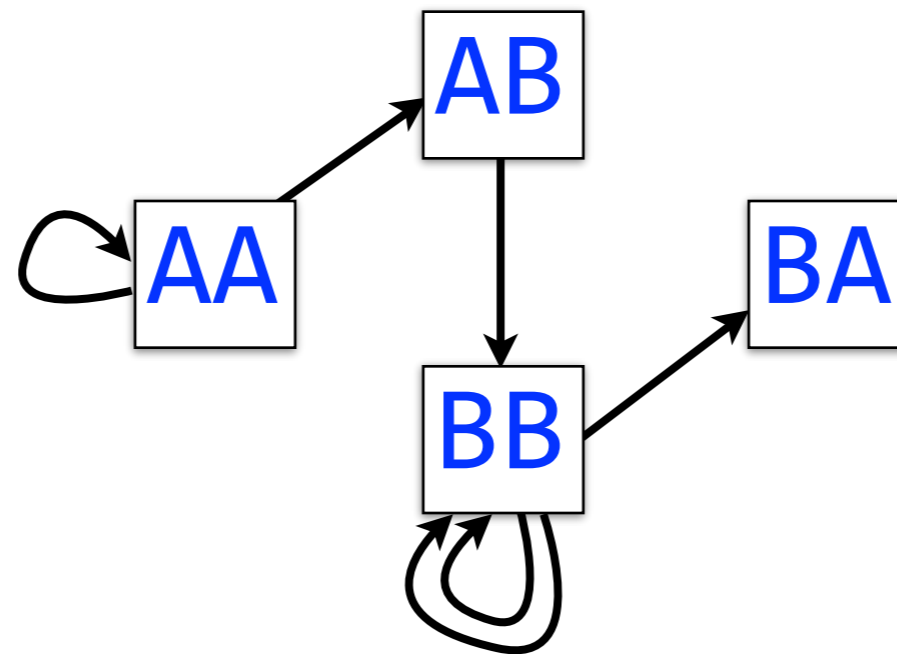L/R 2-mers: AA, AA   AA, AB   AB, BB   BB, BB   BB, BB   BB, BA
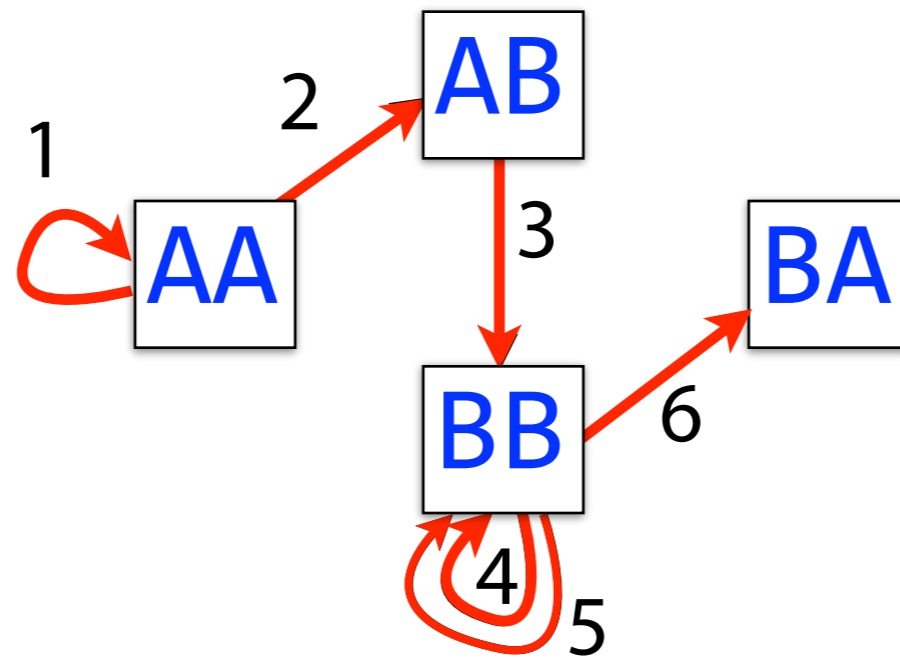

One edge per *k*-mer

One node per distinct *k*-1-mer

De Bruijn graph

Walk crossing each edge exactly once gives a reconstruction of the genome

De Bruijn graph

AAABBBBA

Walk crossing each edge exactly once gives a reconstruction of the genome. This is an *Eulerian walk*.