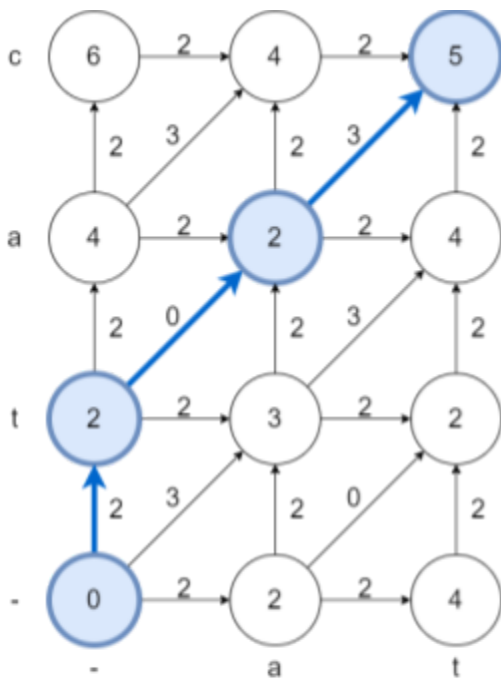


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CSCI 261

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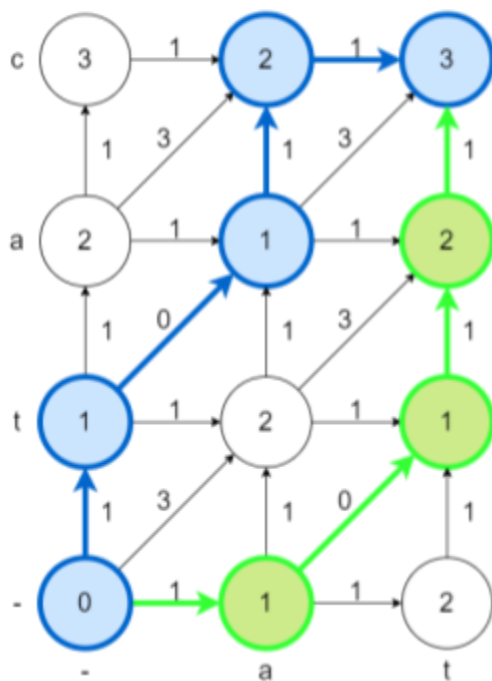
a)

$$\delta=2$$

$$\alpha=3$$

t a c  
\_ a t

$$2 + 0 + 3 = 5$$



b)

$$\delta=1$$

$$\alpha=3$$

t a c \_  
\_ a \_ t  
or  
\_ t a c  
a t \_ \_

$$1 + 0 + 2 = 3$$

c) Sequence alignments are not always unique given a delta and alpha. It is possible to create multiple sequence alignments for each set of delta and alpha. An example of this is part b, where the given alignments are “t a c \_ & \_ a \_ t” and “\_ t a c & a t \_ \_.”