

### Dijkstra's Algorithm Example:

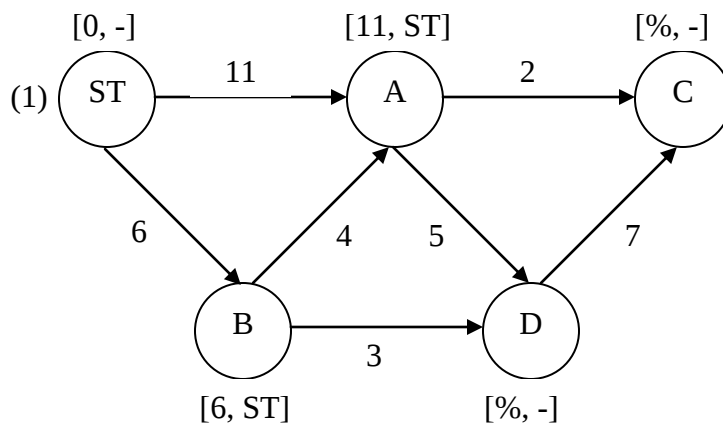
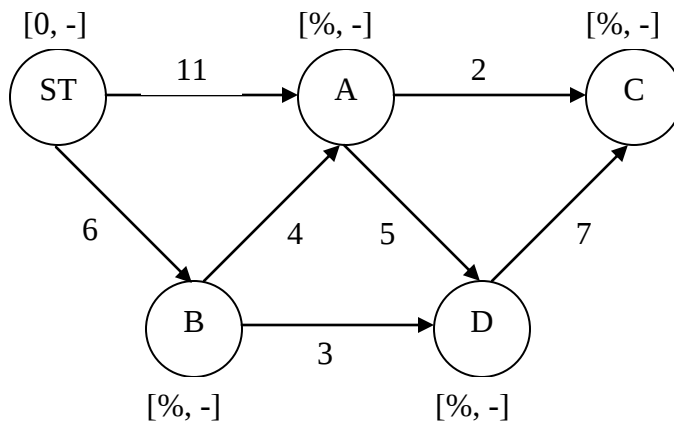
The following example shows how we can run Dijkstra's algorithm over a graph. The start vertex is ST.

%  $\rightarrow$  stands for infinity

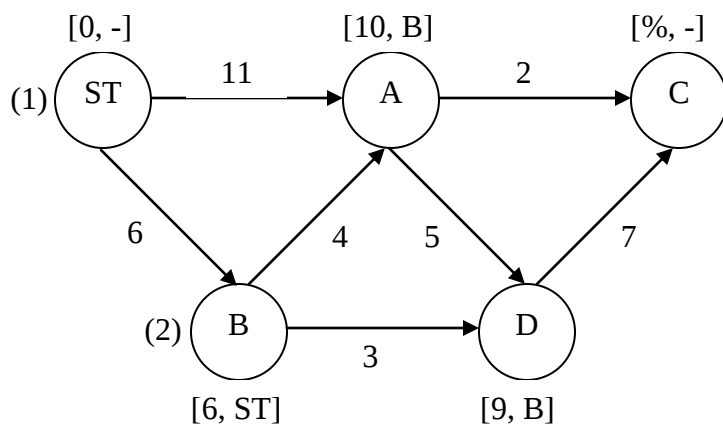
-  $\rightarrow$  stands for no predecessor

(#)  $\rightarrow$  represents the order the vertices are being processed.

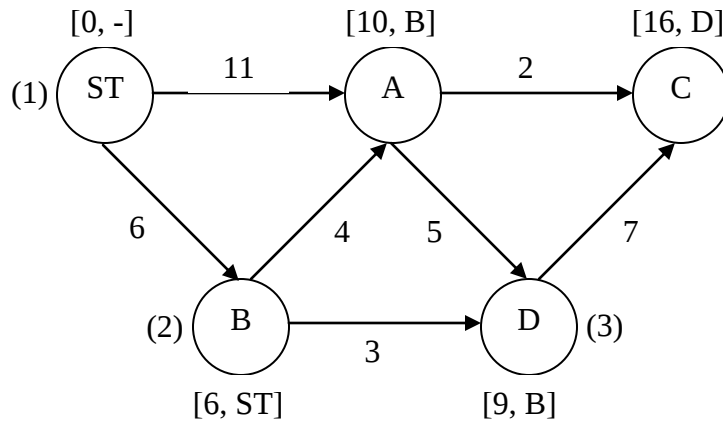
[x,y]  $\rightarrow$  x represents the cost of reaching the node and y the predecessor.



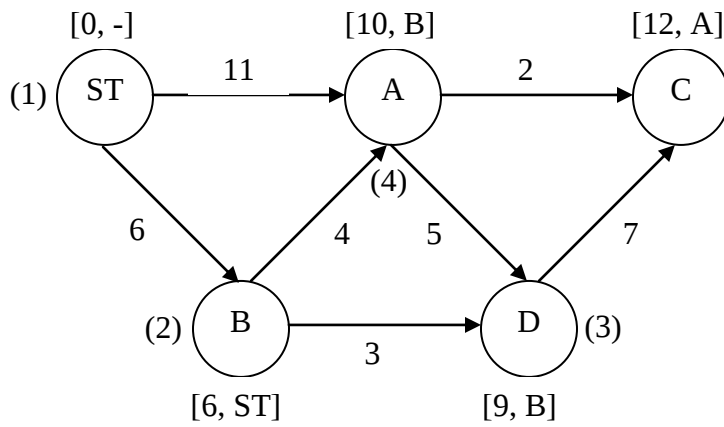
After selecting 1<sup>st</sup> Node



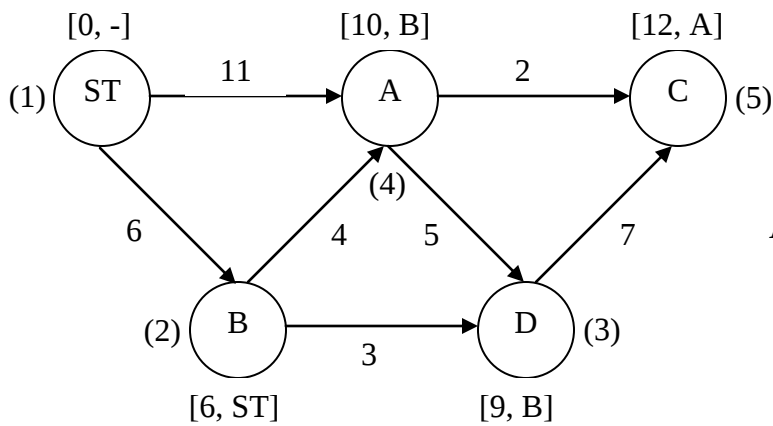
After selecting 2<sup>nd</sup> Node



After selecting 3<sup>rd</sup> Node



After selecting 4<sup>th</sup> Node



After selecting 5<sup>th</sup> Node