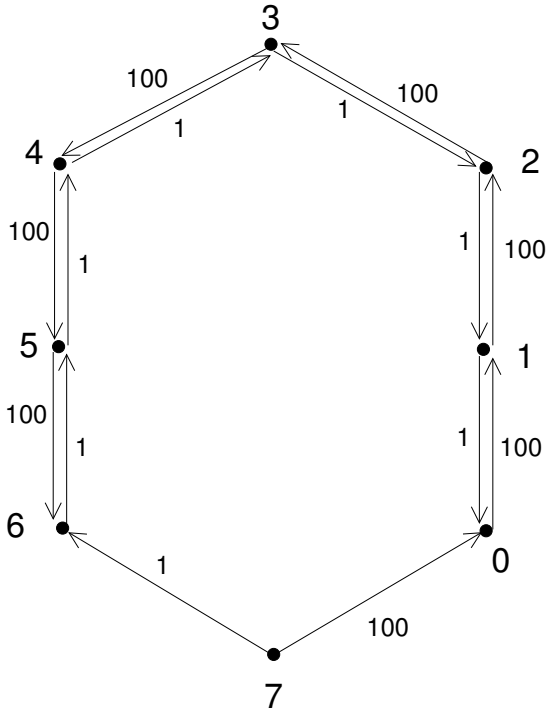
3
100
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100
7

Bellman-Ford Algorithm (SSSP)

Initialize all vertices to have infinite bound and no parent

$\texttt{distances}[s] = 0$

Repeat $|V| - 1$ times

    For each $u \in V$

        For each $v \in \texttt{adjacents}(u)$

            If $\texttt{distances}[v] > \texttt{distances}[u] + w(u, v)$

                $\texttt{distances}[v] = \texttt{distances}[u] + w(u, v)$

                $\texttt{parents}[v] = u$

Dijkstra's Algorithm (SSSP)

Initialize all vertices to have infinite bound and no parent

$\texttt{distances}[s] = 0$

Make a priority queue pq with all vertices

While pq is not empty

$u = pq.\texttt{extractMax}()$

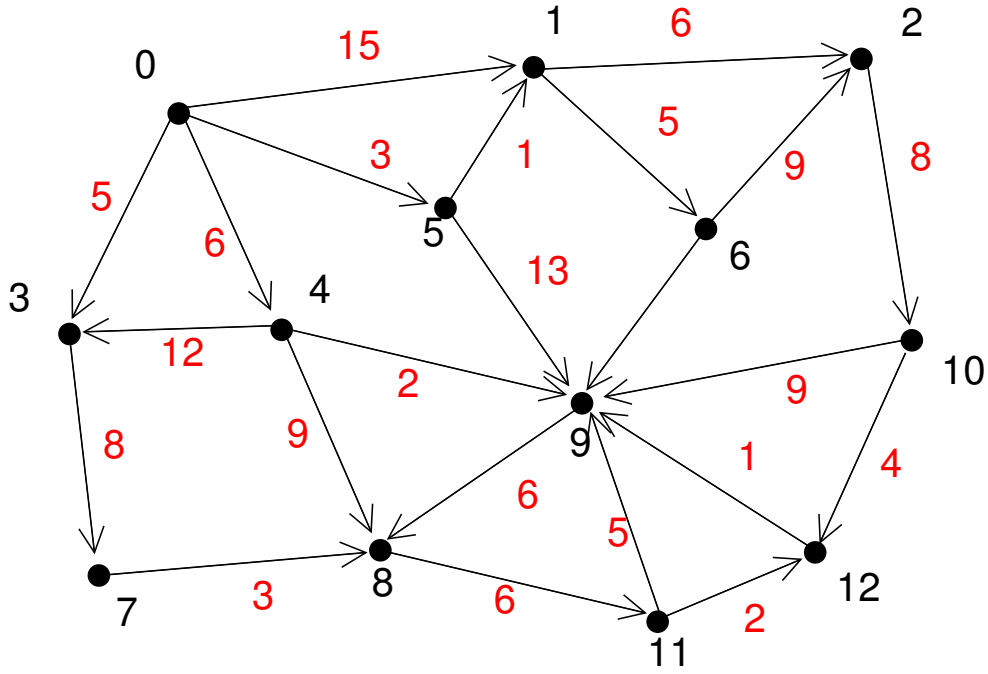
For each $v \in \texttt{adjacents}(u)$

If $\texttt{distances}[v] > \texttt{distances}[u] + w(u, v)$

$\texttt{distances}[v] = \texttt{distances}[u] + w(u, v)$

$\texttt{parents}[v] = u$

$pq.\texttt{increaseKey}(v)$


0
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