Dijkstra's Algorithm (G, ℓ)

Let S be the set of explored nodes

    For each $u \in S$, we store a distance $d(u)$

Initially $S = \{s\}$ and $d(s) = 0$

While $S \neq V$

    Select a node $v \notin S$ with at least one edge from S for which

$$d'(v) = \min_{e=(u,v):u \in S} d(u) + \ell_e \text{ is as small as possible}$$

    Add v to S and define $d(v) = d'(v)$

EndWhile