

$$S = \{s\}$$

$$d[s] = 0$$

$$\forall v \in V - S \quad d[v] = \infty$$

While  $S \neq V$

~~for~~ <sup>select</sup> ~~min~~

$$u \in V - S$$

select

$$d'[u] = d[u] \quad \min_{v=(u,v) \in E} d[v] + l(e)$$

~~if~~  ~~$d'(u) < d[u]$~~

$$\forall u \in S \quad d(u) = d'(u)$$

ES 2.1

$$S = \{s\}$$

$$d[s] = 0$$

$$(s, t)$$

$$(s, y)$$

$$d'(t) = 0 + 10$$

$$d'(y) = 0 + 5$$

$$d'(z) = 5 + 2 = 7$$

$$S = \{s, y\}$$

$$S = \{s, y, z\}$$