# DIJKSTRA

DIJKSTRA(G(V,E), S): $\in O(V \cdot E)$

```
for ∀v ∈ V: -V
    π[v] = ∅
    d[v] = ∞
rof

d[s] = ⊙
PQ = MinQ(d)

while not empty?(PQ) -V
    x = Pop(PQ)
    for ∀ v ∈ adj(G,x) -E
        if d[x] + wt[x,v) < d[v]
            π[v] = x
            d[v] = d[x] + wt(x,v)
        fi
    rof
elihw
end
```

- GREEDY ALGORITHM
  - ↳ DOES NOT WORK WITH NEGATIVE PATHS