Pseudocode for Dijkstra's single-source shortest paths algorithm. Let v be the starting node.

At termination, each node n's d field contains the length of the shortest path from v to n.

```
S = {}; // settled set: shortest path known
F = {v}; // frontier set: some path known
v.d = 0;
while (F is not empty) {
  f = node in F with smallest d;
  Remove f from F, add it to S;
  for each neighbor w of f {
    if (w not in S or F) {
      w.d = f.d + weight(f, w);
      add w to F;
    } else if (f.d + weight(f, w) < w.d) {
      w.d = f.d + weight(f, w);
    }
  }
}
```