

```

1  function Dijkstra(Graph, source):
2
3      create vertex set Q
4
5      for each vertex v in Graph:
6          dist[v] ← INFINITY
7          prev[v] ← UNDEFINED
8          add v to Q
9      dist[source] ← 0
10
11
12     while Q is not empty:
13         u ← vertex in Q with min dist[u]
14
15         remove u from Q
16
17         for each neighbor v of u:           // only v that are still in Q
18             alt ← dist[u] + length(u, v)
19             if alt < dist[v]:
20                 dist[v] ← alt
21                 prev[v] ← u
22
23     return dist[], prev[]

```

- 1、实现上述 Dijkstra 算法。
- 2、提交报告一份。需包含以下内容：核心源代码、构造的数据、运行结果。
- 3、编程语言不限。