

Floyd-Warshall Algorithm

Floyd-Warshall's Algorithm is an alternative to Dijkstra in the presence of **negative-weight edges** (not **negative weight cycles**).

```
FloydWarshall(G):  
6   Let d be a adj. matrix initialized to +inf  
7   foreach (Vertex v : G):  
8       d[v][v] = 0  
9   foreach (Edge (u, v) : G):  
10      d[u][v] = cost(u, v)  
11  
12  foreach (Vertex u : G):  
13      foreach (Vertex v : G):  
14          foreach (Vertex w : G):  
15              if (d[u, v] > d[u, w] + d[w, v])  
16                  d[u, v] = d[u, w] + d[w, v]
```