DIJKSTRA

```
Algorithm Dijkstra(G, s)
{
      dist[s] := 0;
      for each vertex v in G do
      {
            if(v != s) then
                  dist[v] := infinity;
            Add v to queue
      }
      while queue is not empty
      {
            u := vertex in queue with minimum dist;
            Delete u from queue;
            for each unvisited neighbour v of u do
            {
                  if((dist[u] + cost[u, v]) < dist[v]) then
                        dist[v] := dist[u] + cost[u, v];
            }
      }
      return(dist);
}
```