

Given a graph $G = (V, E)$ where V is the set of vertices and E the set of edges. The graph G is **undirected** and **unweighted**..:

This program is able to determine whether for any pair (u, v) of nodes of G there is:

- a) No path (the two nodes are disconnected)
- b) Only 1 shortest path
- c) More than one shortest path

Given a connected graph:

It computes the closeness centrality using Floyd's algorithm for all pairs shortest paths and the eccentricity of each node, defining the center of the graph as the node with minimum eccentricity.