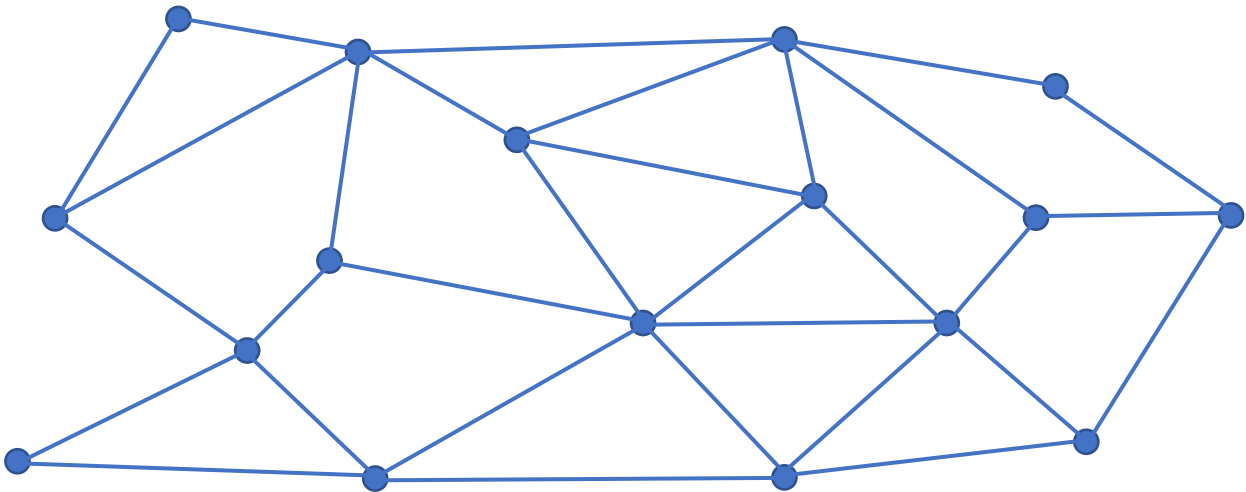


Assignment 6 (10 points)

Create a script in PHP, which will find the shortest path in a graph. Create a graph of at least 20 vertices and 25 edges. Your network could be generated randomly. An example of such graph is here:



This could be a road network among cities in Europe. Your tasks are the following:

1. Create a data structure of a graph and add the vertices names (cities). Add random distances between two vertices (if there is an edge). (2 points)
2. Calculate the shortest path between two cities. They could be selected randomly when page reloads. (2 points)
3. Show the details of the path (the complete route from one city to the destination), with all the cities you must go through and the distance between the subsequent cities on the route. (3 point)
4. Create a table of all distances among all cities. Format it as a HTML table. (3 points)

Extra points: (3 points)

Use PHP extension **gd** to plot the graph and mark the found shortest route.