

Interaction of Node and Graph classes:

The graph has the form of a dictionary, consisting of dictionaries, with keys - coordinates and values - distances between points.

The dictionary has the form:

`{coordinates1 = {coordinates2 = distance, coordinates3 = distance... }, coordinates2 = ... }`

Graph with edges: Graph : {41.5633574,14.6556315={41.5704836,14.6745356=3217, 41.5602674,14.6617334=2362, 41.55

The distance between address 1 and address 2 is different from the distance between address 2 and address 1. Since Google Maps Platform APIs takes traffic rules into account, the distances may vary

To simplify the task, we passed the same distance between addresses to the graph, regardless of the direction.

```
// Инициализация графа
List<String> points = new ArrayList<>(map.keySet());
Graph graph = new Graph();

// Заполнение графа рёбрами
for (int i = 0; i < points.size(); i++) {
    for (int j = i + 1; j < points.size(); j++) {
        String point1 = points.get(i);
        String point2 = points.get(j);

        String coord1 = map.get(point1);
        String coord2 = map.get(point2);

        try {
            int distance = DistanceMatrixService.getDistance(coord1, coord2);
            graph.addEdge(coord1, coord2, distance);
            graph.addEdge(coord2, coord1, distance);
        } catch (Exception e) {
```