## Homework Batch III: Routing Algorithms

Deadline: 18/05/2021

## 03/05/2021

- 1. Implement the binary heap-based version of the Dijkstra's algorithm.
- 2. Consider the contraction hierarchies presented during the course. Assume to deal with graphs that can be fully represented in the memory of your computer. Implement:
  - (a) an algorithm to add the shortcuts to a graph;
  - (b) a bidirectional version of Dijkstra algorithm that can operate on the graphs decorated by the algorithm at Point 2a.