

Implementation of data structures and algorithms

Short Project 9: MST

Due: 11:59 PM, April 30th, 2023

Submission procedure: same as usual.

Team task:

Implement Boruvka's algorithm and Prim's algorithm. Compare their performances and submit a short report. For Prim's algorithm, you should code the implementation # 2 discussed in the class. Note that you also have to implement IndexedHeap that extends BinaryHeap. Starter code MST.java is provided. For the comparison study, create your own test cases. Compare the two algorithm's performances at least for the configurations shown below.

1. 10,000 nodes, 1 Million edges
2. 100,000 nodes, 30 Million edges
3. 100,000 nodes, 300 Million edges
4. 1 Million nodes, 300 Million edges