

Formal Methods in Software Engineering

Laboratory 7

1. Implement (at least) three algorithms from Chapter 10 (Elementary Data Structures), Introduction to Algorithms, Th. Cormen et al. (an electronic copy can be found here: [https://sd.blackball.lv/library/Introduction_to_Algorithms_Third_Edition_\(2009\).pdf](https://sd.blackball.lv/library/Introduction_to_Algorithms_Third_Edition_(2009).pdf)). Consider that the data structures are implemented using arrays and each algorithm is represented by a separated method, where the data structure is given as a parameter (no classes, yet). Write specifications for the solved problems and prove their correctness w.r.t. the specifications.