

String Processing Algorithms 2015 - Week 1

Exercises

Rodion Efremov

October 23, 2015

Exercise 1

The worst case time complexity of the standard quicksort algorithm is $\Omega(n^2)$, but by a suitable pivot selection one can achieve $\mathcal{O}(n \log n)$ time. Explain how to achieve

- (a) average time complexity $\mathcal{O}(n \log n)$
- (b) expected time complexity $\mathcal{O}(n \log n)$
- (c) worst case time complexity $\mathcal{O}(n \log n)$

Solution

(a)

fds