

1-D range query

Describe how to efficiently perform one-dimensional range queries for the data structures described in Problems 14 and 15. Given two keys $k_1 \leq k_2$, a range query asks to report all the keys k such that $k_1 \leq k \leq k_2$. Give an analysis of the cost of the proposed algorithm, asking yourself whether it is output-sensitive, namely, it takes $O(\log_B N + R/B)$ block transfers where R is the number of reported keys.

SOLUTION