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Query Optimization

14. Exercise, Winter 2007/2008

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1. Given a relation with 1000 tuples and 100 pages (10 tuples per page). Calculate the expected distance between the first and the last read page, when 50 tuples have to be read. (3)
2. Given two histograms H_A and H_B , both with N buckets. Sketch an algorithm to construct a new histogram H_{A+B} (size can be larger than N) that models the expected distribution of the sum of A and B . (4)
3. Adjust the previous algorithm such that the resulting histogram has the size N . (3)