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COMP 421 Assignment 2 Ex 2

Indirect clustered type II B+-tree index on eid.

Unclustered type II B+- tree indirect index on (vid, date)

1. The Average number of rids per data entry, the size of data entry and the total number of data entries and the number of leaves

Shared Knowledge:

Tuple Size =

Number of tuples:

Tuples per page=

Number of pages needed

Case 1

Base Knowledge

Number of distinct index values of case one:

* 1. Avg. number of rids per data entry
  2. Size of data entry
  3. Total num of data entries
  4. Number of leaves

Case 2:

Base Knowledge

Number of distinct index values of case two: 2.7

1. Avg. number of rids per data entry
2. Size of data entry
3. Total num of data entries
4. Number of leaves
5. The maximum and minimum possible number of intermediate nodes in the index (for the given possible fill factor range of 50-100%) and the height of the tree in each case.

Base knowledge:

Case 1:

* 1. Max possible intermediate nodes

Intermediate nodes =

* 1. Min possible intermediate nodes

Intermediate nodes =

* 1. Tree height

50%: 2

100%: 2

Case 2:

1. Max possible intermediate nodes

Intermediate nodes =

1. Min possible intermediate nodes

Intermediate nodes =

1. Height

50%: 3

100%:2