Exercises on MMDB
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Exercise 9

Subject: Indexing

Aufgabe 1: Index structures in general

1. What are the general functions of index structures in databases?

2. Which other requirements does CBIR have on index structures?

3. Among the frequently-used index structures, we list the B-tree, Hash, K-d tree and Point Quadtree. For each one, explain its structure and its functioning.

Aufgabe 2: Index structures for n-dimensional data: R-tree

1. Describe the most important characteristincs and the structure of an R-tree.

2. Explain how the functions of inset and delete work in an R-tree-index.

Aufgabe 3: Search algorithms for n-dimensional objects in databases

Describe the following algorithms for similarity search with and without index:

1. Exact queries.

2. Range queries.

3. Nearest neighbour queries.