Abstract

B-tree and R-tree are two basic index structures; many different variants of them are proposed after them. Different variants are used in specific application for the performance optimization. In this paper different variants of B-tree and R-tree are discussed and compared. Index structures are different in terms of structure, query support, data type support and application. Index structure’s structures are discussed first. B-tree and its variants are discussed and then R-tree and its variants are discussed. Some structures example is also shown for the more clear idea. Then comparison is made between all structure with respect to complexity, query type support, data type support and application.

References

- Hung-Yi Lin, "A Compact Index Structure with High Data Retrieval Efficiency", 
Comparison of Advance Tree Data Structures


Index Terms

Computer Science Data Structures
Keywords
Index Structures  B-tree  R-tree  Variants  Query Type  Complexity