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Understandings on RAID Levels and Secondary Storage Management

RAID stands for Redundant Array of Independent Disks.

RAID is a data storage virtualization technology. Combines multiple physical disk drive components into one or more logical units for the purposes of data redundancy and performance improvement.

In computer storage, the standard RAID levels comprise a basic set of RAID (redundant array of independent disks) configurations that employ the techniques of striping, mirroring, or parity to create large reliable data stores from multiple general-purpose computer hard disk drives (HDDs).

Using appropriate RAID levels in any commercial database becomes crucial in terms of Capacity, Performance, Redundancy and Cost effectiveness.

INDEX in a database is a data structure that speeds up the data retrieval time. It is very useful in reducing the execution time of any data retrieval operation. We have analysed the execution plans of different queries, and seen how the I/O costs changes and how the Indexing benefits us. There are different indexing techniques like B-Trees, hashing etc. But B-Tree is the technique that has more existence in most of the commercial databases.

We have seen how to Create tables on multiple disks or multiple logical volumes, partitioning a table across multiple disks and saw how the records split and gets stored on those disks.

Totally in Unit-1, I have learnt many basic concepts of Secondary storage management, which are very essential for a developer to understand the significance and importance of it, and implement them in order to create and develop an efficient and powerful Database.

THANK YOU