

What is an index?

The principal purpose of an index is to speed up data retrieval. It does this by **reducing (the less pages the better)** the number of database data pages (8kb in size) that have to be visited/scanned.

Similar to a phone book or a text book, each has an index to help retrieve the data fast by using the index rather than scanning the entire phone book or the text book. There are primarily two types of indexes: clustered indexes and non-clustered indexes.

When we talk about clustered index, the phone book is a great example of a clustered index. The data itself is sorted by the column you have chosen to index. When we talk about non-clustered index, then the back of book containing an index is a great example of a non-clustered index.

Let's look at an example of each.

